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1. Introduction

Transaction Language 1 (TL1) is defined for OS/NE (machine-to-machine) interfaces. Operations functions such as surveillance, memory administration, and access and testing use short messages to cause specific actions at the NE. *Transactions* are the initiation, communication, and execution of these actions. Many, but not all, of these transactions require two-way interactive exchange of related messages. TL1 is defined by restricting the features used in the message definitions and the form transmitted by each side of the OS/NE interface. The scope of this section includes the specification of a general syntax and commonly applied semantics for the TL1 OS/NE interface. Each TL1 message is expressed in American Standard Code for Information Interchange (ASCII) characters.

Complete implementation-level requirements for TL1 are specified in GR-831-CORE, *Language for Operations Application Messages*.

2. TL1 Message Specification

This section defines the language structures used in the input and output messages that pass between the switch and an operations system. It also specifies syntax and semantics conventions.

2.1 TL1 General Message Syntax

The following table lists the specification characters, using the Backus-Naur Form (BNF), that define the syntax:

Symbol	Syntax Definition
< >	Encloses a symbol character (e.g., <*int-num*> can specify any integer number).
[ ]	Encloses an optional symbol or information unit (e.g., *a[b]c* represents *abc* or *ac* as *b* is optional).
‘ ’	Encloses a literal character (e.g., *‘a’* really means literal character *a*, as opposed to a symbol representing a value).
( )	Encloses a group of symbols for the following operators:
*	*Post-fix* operator meaning that the preceding symbol or group of symbols may occur *zero* or more times (e.g., *a(bc)** represents *a* or *abc* or *abcbc* or ...).

^	Space (i.e., the literal blank character, used only in examples of messages).
+	*Post-fix* operator meaning that the preceding symbol or group of symbols may occur *one* or more times (e.g., *a(bc)+* represents *abc* or *abcbc* or ...).
|	*Infix* operator meaning alternative; either the preceding or succeeding symbol may occur, but not both in succession (e.g., *a|b|c* represents *a* or *b* or c).
: : =	Separates the left and right sides of a grammar rule (e.g., *<digit> ::= (0|1|...|9)* is a grammar rule representing *the symbol <digit> is 0 or 1 or ... or* 9).

The syntax for *input messages* and *output messages* is considerably different. Among the fundamental differences are the application of *format effector*s, particularly *space*s, *linefeed*s, and *carriage return*s. Format effectors are meaningless when present in input messages and may or may not be ignored in output messages.

Input messages group parameters into *blocks* separated by *colons* and, within *parameter block*s, separated by *comma*s; *parameters* may be further modified with *compounding*, *ranging*, and *incrementing operator*s.

2.2 Characters and Information Units

The legal ASCII character set specified by TL1 is shown in the following matrix. Each column of the matrix is labeled by the most significant hexadecimal digit of the character code and each row by the least significant hexadecimal digit.

	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**
0			<sp>	0	@	P	`	p
1			!	1	A	Q	a	q
2			"	2	B	R	b	r
3			#	3	C	S	c	s
4			$	4	D	T	d	t
5			%	5	E	U	e	u
6			&	6	F	V	f	v
7			'	7	G	W	g	w
8		<can>	(	8	H	X	h	x
9	<ht>		)	9	I	Y	i	y
A	<lf>		*	:	J	Z	j	z
B	<vt>		+	;	K	[	k	{

C	<ff>	,	<	L	\	l	|
D	<cr>	-	=	M	]	m	}
E		.	>	N	^	n	~
F		/	?	O	_	o	

In the above matrix, the format effectors are defined thusly: <ht> = Horizontal Tab, <lf> = Line Feed, <vt> = Vertical Tab, <ff> = Form Feed, <cr> = Carriage Return, <can> = Cancel, and <sp> = Space. The cancel character <can> is legal for input messages (commands) only. The characters not used by TL1 are reserved for implementation-dependent use by lower layers of the communications protocol: PAD control, XON/XOFF stream control, etc.

Format effectors within input messages (i.e., spaces, tabs, carriage returns, etc.) are ignored, except within text strings, and thus do not terminate information units. For example, within a command, COMMAND CODE and COMMANDCODE are treated in exactly the same way. Within output messages, format effectors may or may not be ignored (see subsections 3.2, 3.3, and 3.4). The backslash (\ ) character is used for escape syntax within text strings; i.e., it causes the character following to be literally interpreted.

TL1 messages are built from basic entities called *information units* (analogous to English words) combined and delimited by punctuation characters. The types of information units are described in the following subsections.

2.2.1 Identifiers

An identifier starts with a letter and is followed by any number of letters or digits. For example, A, *ab*c, and *xy50* are valid identifiers. Identifiers are defined as follows:

```
<ident> ::= <let> (<let> | <dig>)*
```

2.2.2 Symbolic Names

A symbolic name must contain at least one *lette*r, *plus-sign (*+), *pound-sign (*#), or *percent-sign (*%) and optionally any *digit*s. For instance, *#7SW*S, *1A*0, *10*%, and *abc* are all valid symbolic names. Symbolic names are defined as follows:

```
<sym name> ::= <dig>*
   ((<let> | '+' | # | %) <dig>*)+
```

2.2.3 Alphanumerics

An alphanumeric starts with a letter or digit and is followed by any number of letters or digits. Alphanumerics, like identifiers and symbolic names, are used for names or other non-numeric information. Although lowercase is allowed, uppercase is the norm for most implementations (including the Lucent switch). Alphanumerics are defined as follows:

```
<alphanum> ::= (<let> | <dig>)+
```

2.2.4 Decimal Numbers

A decimal number is a string of decimal digits with an optional non-trailing period (.). It does not permit a leading plus-sign (+) or hyphen (-), or have any provision for exponential notation. Some examples are 88, .005, and 004.100, but 12. is not valid because of the trailing period (.). Leading zeros are optional except for values constrained to a fixed format (e.g., date and time). The optional leading D' (D apostrophe), indicating a decimal number, is permitted only in a particular parameter if it is so stated in the semantics of the command involving that parameter. Decimal numbers are defined as follows:

```
<dec num> ::= [D'] <dig>* [.] <dig>+
```

2.2.5 Nondecimal Numbers

The nondecimal number types, *hexadecima*l, *octa*l, *binar*y, and *keyed*, are permitted in TL1 only in a particular parameter if it is so stated in the semantics of the command involving that parameter. The switch does not utilize these information units.

2.2.6 Text Strings

A text string is any string of ASCII (alphanumeric and/or punctuation) characters (see the matrix in subsection 2.2) enclosed in double-quotes ("). This allows a great deal of flexibility in defining values because the limitations of identifiers and symbolic names are overcome at the small cost of quoting the characters for message entry. To enter a double-quote (") character within a text string, use an escaped double-quote (\"). Text strings are defined as follows:

```
<text str> ::= " (\" | \\ | <any character
   except " or \>)* "
```

2.2.7 Arithmetic Expressions

In TL1, arithmetic expressions are used to represent explicitly signed, positive or negative decimal numbers. The syntax is an optional plus-sign (+) or minus-sign (-), followed by a string of decimal digits with an optional non-trailing period. The entire expression is contained in parentheses to prevent parsing ambiguities. Examples of legal arithmetic expressions are (12), (-15), (+137.038), and (67.23). Arithmetic expressions are defined as follows:

```
<arith exp> ::= '(' ['+' | -] <dig>* [.]
   <dig>+ ')'
```

2.2.8 Numeric Strings

A numeric string is a subtype of decimal numbers consisting of only decimal digits. Each digit in the string is an ASCII representation of a numeric digit. Numeric strings are defined as follows:

```
<num str> ::= <dig>+
```

2.2.9 Integers

An integer is either a numeric string or an arithmetic expression not containing a period (decimal point). Integers are defined as follows:

```
<integer> ::= <num str> |
   '(' ['+' | -] <dig>+ ')'
```

2.2.10 Inner Strings

An inner string is similar to a text string but is used only within quoted lines of output messages (see subsections 3.3 and 3.4). Because the double-quote character (") has already been used to enclose the line, another symbol is needed to bracket text containing punctuation or other special characters. The symbol used is the escaped double-quote (\"). Within an inner string, a literal double-quote (") is represented by double double-quote (""), and a literal backslash (\) by double backslash (\\); for example,

```
"<startTextString>\"<startInnerString>""<and>
   \\<endInnerString>\" <endTextString>"
```

2.3 Parameter Block Syntax

A parameter block always follows a colon and contains a (possibly empty) list of parameters, separated by commas. In TL1, trailing colon (:) block separators may be omitted if there are no parameters entered in those last blocks. The parameter syntax, in general, consists of an optional parameter name, equal-sign (=), and a parameter value. However, the precise use of these options depends on the type of parameters entered in that block. A block shall only contain all position-defined parameters or all name-defined parameters. These two formats are characterized in the following subsections.

2.3.1 Position-Defined Parameters

In a block of position-defined parameters, the individual parameters must be entered in a specific order without names unless specifically allowed by the message description. A parameter entry may be omitted provided the associated comma separator is retained to indicate the position of the parameter omitted. The parameter names are implicit and not necessary in a positional block, where it is the order of parameter entries that associates each value with the corresponding parameter. Some examples of valid position-defined parameter blocks follow:

```
: 5, 6, Yes:
: , 6;
```

2.3.2 Name-Defined Parameters

For a block of name-defined parameters, every parameter entry must have a parameter name and value, with successive entries made in arbitrary order. Parameter names are always transmitted with name-defined parameters (and order is not significant nor required).

The use of void parameters, indicated by adjacent separators, is valid only for positional entry and not for name-defined entry. Parameter defaulting is done by omitting a parameter entry. Three equivalent examples of a block of name-defined parameters are shown in the following (assuming the default values are as in the first example):

```
: P1=1.0, P2=2.0, P3=off:
```

-or-

```
:P3=off, P1=1.0:
```

-or-

```
:P2=2.0:
```

2.3.3 Name/Position Syntax Conflicts

The syntax of an entered block of parameters must be consistent with either a name-defined or a position-defined syntax. The following rules characterize resolution of potential syntax conflicts:

In TL1, a parameter block must be position-defined if:

- Any parameter values appear without parameter names (i.e., without NAME=)
- Any void parameters (indicated by adjacent separators) appear.

Otherwise, the parameter block has valid syntax for both a position-defined and a name-defined block.

In the case of position-defined parameters, entered parameter names must match the defined parameter positions. If more parameters are entered than are defined, the block is in error. But, if fewer are entered, defaults are applied to the trailing parameter positions.

When names are attached to all parameter entries, the association of the entry with the parameter definition is clear. If a parameter name appears more than once, an error will be generated. If a parameter does not appear at all, the parameter defaults to the specific default action defined for that particular parameter of that particular command.

2.4 Boolean Flag Parameters

Some messages use Boolean parameters (e.g., on/off, yes/no). A possible implementation is to represent one state by the presence of a symbol and the other by its absence. To minimize the introduction of new symbols, the parameter value symbol chosen may be the parameter name. While this mechanism is perfectly legal under TL1, the parameter actually has two values: the parameter name value represents one state, while a null symbol represents the (default) other state.

2.5 Defining Parameter Values

A parameter value consists of one or more TL1 information units that may be compounded and/or grouped together. When a parameter is defined for a particular command, the valid range of parameter values is defined, along with its interpretation. This includes the implicit set of units associated with any numeric values.

Although there are exceptions, usually parameter values are interpreted as character strings that must match exactly or as numeric values that must satisfy a given range. When numeric values are specified, they must have a default base associated with them. This will normally be the decimal base, but it may be binary or any other semantic interpretation desired for

that parameter. For TL1, the use of non-decimal numbers is not supported in general. If it is necessary to allow a parameter to be entered in bases other than its default base, it must be specifically stated in that parameter's description.

For non-numeric parameter values, typically a list of character strings will specify their valid values. The parameter values, unlike parameter names, are case sensitive; e.g., the identifiers “A1” and “a1” do not match.

A particular parameter may have a valid range that includes both numeric and character values. For example, a parameter SETTING may take on values of 0 to 15, the identifier NONE or the text string "N/A". Note that the slash (/) in "N/A" requires that it be entered as a text string.

A parameter value containing a single information unit is called a simple parameter argument. The compound arguments and argument grouping are described in the next two subsections.

2.5.1 Compound Arguments

Closely related information can be compounded into one parameter value by joining the information units with the hyphen character (-). For example, it may be desirable to use one parameter, LOCATION, to represent two map components, one given by a letter and the other by a number. LOCATION = A-21 is an instance of this type of construct.

Compounding is equivalent to two separate positional parameters combined into one, but compound fields cannot be omitted the way positional parameters can. For example, A--C is invalid syntax but A-null-C (where null is a literal parameter value meaning the parameter is missing) or A-""-C could be specified for use in a particular command. It is also permissible to specify both simple and compound values for the same parameter.

2.5.2 Grouping of Arguments

Both simple and compound arguments may be grouped together so one parameter may actually convey several arguments. This is done by using the connectors *ampersand (*&) and *double-ampersand (*&&).

The ampersand (&) character is most useful when a parameter takes on any combination of arguments in a specified set. If there are three OPTIONS (e.g., x, y, and z) that can be selected in any combination, some possible entries could be OPTIONS = x&z or OPTIONS = x&y&z.

The use of double-ampersand (&&) is reserved for expressing ranges of values. An example of this usage is RANGE = 1&&10 to enter the values 1,2,3,...,10. Compound parameters may be also grouped, but note that *double-ampersand (*&&) can only be used to range over the last field of the compound parameter (e.g., 2-5-1 && -10 means 2-5-1 & 2-5-2 & ... & 2-5-10).

In TL1, the use of double-ampersand (&&) for ranges cannot be used for a particular parameter unless it is specifically stated in the semantics of the parameter. In such cases, the ordering of parameter values must be defined. Unless otherwise stated, numeric values have the usual ordering.

3. Types of TL1 Messages

The TL1 syntax divides into four basic areas that specify the following four types of operations application messages:

- Input Command Messages
- Acknowledgments
- Output Response Messages
- Autonomous Messages

3.1 Input Command Messages

An input command message is a message to a network element (NE). The message requests the NE to perform some operations-related action. The general structure of a TL1 input message is of the form:

```
<command_code>:<staging_parameter_blocks>:
   <message_payload_block(s)>;
```

The *command code* determines the action (i.e., pragmatics) to be taken at the NE as a result of receiving the input message. The *staging parameter blocks* determine the target NE and the identity of the object to be acted upon by the input message. The *message payload block(s)* is the subject matter relating to the action to be performed by the input message. The *semi-colon* character *(*;) terminates a TL1 input message.

3.1.1 Command Code

Each command must begin with a command code consisting of a mandatory verb followed by up to two other optional modifiers, each separated by a hyphen.

```
<command code> ::= <verb>[-<modifier>
   [-<modifier>]]
```

3.1.1.1 Verb

The verb identifies the action to be taken at the NE as a result of receiving a TL1 message from an OS. The semantic values of the verb are defined within the context of the functional application in which the message is intended to be used (e.g., ENT, ED, RTRV).

3.1.1.2 Modifiers

The command code modifiers are optional depending upon the specific command and the application domain. In normal TL1 command usage, the first modifier identifies the object of the verb where the action is to be applied in the NE. The second modifier further modifies the object of the verb and is interpreted differently for different operations domains. For example, a <*verb*>*-EQPT* can be used to indicate that an action, specified by the value of the *ver*b, is to be taken on an equipment object; a <*verb*>*-T0* indicates an action is being taken on a DS0 circuit (where T0 indicates transmission hierarchy level 0).

As another example, for switching NEs, the command <*verb*>-<*administrative view*> indicates an action is to be taken on an object entity within the specified *administrative view* of the switching NE database. The information groupings within a switching NE are called administrative views, in which individual data elements are represented in the form of flat tables or matrices. Each row of an administrative view represents an object entity; each column represents an attribute (parameter) shared by all of the object entities in the view. An administrative view is similar in concept to relations in relational database theory.

The second modifier may be used to further define the identity of the object upon which the action is to be taken. For example, the command DLT-ROUTE-SS7 will disconnect (DLT) an SS7 route. That is, the modifier ROUTE is further defined to only identify SS7 routes.

3.1.2 Staging Parameter Blocks

The *staging parameter blocks* are a series of four data blocks following the *command code* that provide information necessary to establish (i.e., *stage*) and uniquely identify an object entity within an NE to be managed by a remote OS and to specify certain options as to how the input command is to be executed in the NE. The *staging parameter blocks* determine the target NE and the identity of the object to be acted upon by the input message. The structure of the staging parameter blocks is of the form:

```
:[<tid>]:[<aid(s)>]:<ctag>:[general block]:
```

The first three staging parameter blocks are discussed in the following subsections. The general block is required for all input commands but its value can be null (i.e., the general block is represented by two successive colons). This is the case for the Lucent switch.

3.1.2.1 Target Identifier (TID) Block

TID is the Target Identifier. It identifies the destination network element (NE) to which the input command is directed. The value of the TID can be up to 20 alphanumeric characters long. Spaces are not allowed. TIDs are not case-sensitive. Although the TID block is required for all input commands, its value can be null (i.e., the TID block is represented by two successive colons) if an NE is the only target possible for a message sent on a connection. This is the case for the Lucent switch.

3.1.2.2 Access Identifier (AID) Block

AID is the Access Identifier. This block contains one or more parameters that uniquely identify the entities within the target NE that are the object of the input message. Section 120-400-000 of this reference guide lists the Access Identifiers used by the Lucent switch.

3.1.2.3 Correlation Tag (CTAG) Block

CTAG is the Correlation Tag. It correlates an input command with its associated output response(s). The value of the CTAG is a non-zero integer of up to six characters.

3.1.2.4 General Block

The general block includes support parameters whose values affect the way in which the input command is to be executed in the NE. The general block is required for all input commands but its value can be null (i.e., the general block is represented by two successive colons that are optional when no message payload follows). This is the case for the Lucent switch.

3.1.3 Message Payload

The remaining part of any TL1 input command is the message payload; that is *subject matter* of the *message*. This section of the message may consist of zero (for instance, for RTRV messages) or more data blocks in the following general form:

$(:<p_x>(,<p_x>)*)*;$

where "p_x" represents a parameter (i.e., data item). Each data block is delimited by colons (:) and the last is terminated by a semi-colon (;). Each data block may have an unlimited number of data items, each delimited by commas (,). For example, a payload consisting of three parameter blocks, each containing three parameters would be of the form

$\ldots:<p_1>,<p_2>,<p_3>:<p_4>,<p_5>,<p_6>:<p_7>,<p_8>,<p_9>;$

The data items within a data block may either be name-defined (of the form <*key_word*>=<*value*>) or position-defined where the values are specified and the keyword is implied by its position in the data block. All of the data items must be of the same type within a given data block. The semantics of the data items are operation domain-specific and vary according to the operation to be performed as a result of the input message.

Whenever an equal sign (=) is detected within a data block, the data block type is defined to be a name-defined data block. This implies the data block to be of the form:

```
…:Keyword1=<value>, Keyword2=<value>,…
   KeywordN=<value>:…
```

If a position-defined parameter (i.e., a value with no "keyword =") is included in a name-defined data block, an error will be generated indicating a data block error. That is according to the rule that data types cannot be intermixed in the same data block.

3.2 Acknowledgements

An *acknowledgment* is a short reply from the switch indicating that an input command message is being acted upon or has been immediately rejected. The essential purpose of an acknowledgment is to assure a human user that a command that takes a long time to execute has been received by the NE. An acknowledgement is sent if an output response message to the command cannot be transmitted within two seconds of receipt of the command. In general, an acknowledgment is later followed by an output response message to the command. However, in some circumstances, an acknowledgment is the only output message triggered by a command.

The *format* of an acknowledgment is as follows:

```
<acknowledgment code> ^ <ctag> <cr> <lf>
```

The acknowledgment code identifies the reason for the acknowledgment. The CTAG identifies the associated input command. The *less than* **(**<) character is the acknowledgment terminator. The following table shows the valid values for acknowledgment codes and their meanings.

Acknowledgement Code		Meaning
IP	In Progress	These acknowledgments imply that the command is being executed. They are used often for test and access messages requiring a long execution time, e.g., a 1-minute noise test. These acknowledgments may be followed by either completed or denied output response messages.
PF	Printout Follows	

OK	All Right	Command received and requested action initiated and completed.
NA	No Acknowledgement	Command received but control of the processing has been lost, making correct acknowledgement impossible. Initiation or execution of the command is uncertain. This acknowledgment can also be used to respond to a command that is garbled during transmission. If the CTAG value of the command could not be determined, then the single character *zero (*0) is used as the acknowledgment CTAG value.
NG	No Good	The command is valid, but the requested action conflicts with current system or equipment status. This acknowledgment is seldom used because specific error codes in output response messages can be employed to signify the same information.
RL	Repeat Later	Requested action cannot be executed due to unavailable system resources caused by system overload, excessive queue lengths, busy programs, etc. The command may be entered again later.

3.3 Output Response Messages

An *output response message* is a detailed reply (or set of replies) to an input command message. It contains information indicating whether the command was executed successfully and any data that needs to be returned to the OS/user. The general structure of a TL1 output response message is of the form:

```
<header> <response identification>
  [<text block>] <terminator>
```

The required *header* represents information common to all output response messages; i.e., it is independent of the type of output response. The required *response identification* identifies the type of output response message. The optional *text block* represents information specific to the particular output response message. The *terminator* indicates the termination or continuation of the output response message.

3.3.1 Header

The form of the *header* is

```
<cr><lf><lf>^^^<sid>^<year>-<month>-<day>^
  <hour>:<minute>:<second>
```

and is composed of a system identifier *(<sid>*) and date and time stamps.

The *<sid>* is restricted to 20 characters maximum and identifies the NE generating the message. The syntax of *<sid>* is any TL1 identifier (simple or compound) or text string. For the Lucent switch, the CLLI code is used for the source identifier. The *<sid>* value is checked by the NE against the *<tid>* parameter of the input command to verify that the NE's *<sid>* matches the command's intended target (i.e., *<tid>*).

The *<year>*-*<month>*-*<day>* construct generally represents the day on which the command is executed. This construct consists of three components separated by hyphens (-). Each component is specified by exactly two digits.

The *<hour>*:*<minute>*:*<second>* construct generally represents the time when the command is executed. This construct consists of three components separated by colons (:). Each component is specified by exactly two digits.

3.3.2 Response Identification

The form of the response identification is

```
<cr><lf>M^^<ctag>^<completion code>
```

and is composed of the character *M*, a *correlation tag (<ctag>)*, and a *completion code*. The character *M* signifies that the message is the response to an input command message. The output response message has the same *<ctag>* value as the corresponding input command message, thus enabling the OS to associate the received output response message with a previously sent command. The following table shows the valid values for completion codes and their meanings.

Code	Meaning
COMPLD	represents total successful execution of the input command.
DENY	represents total denial of the input command.
PRTL	represents partial successful execution of the input command. This response code is returned for output response to input commands specifying multiple AIDs of which only a subset (but not an empty subset) have been successfully executed. If all AIDs have failed to be executed, the response code is DENY.
DELAY	represents successful queuing of the input command submitted for delayed activation.
RTRV	represents output response of an input retrieve command (i.e., command verb = RTRV) that retrieves extensive amount of information from the NE and thus causes lengthy processing in the NE for gathering all the requested information. For

	effective operation, the NE may start returning available information to the OS even before all the requested information is gathered. In this case, the RTRV completion code may be used. Multiple responses with RTRV completion codes are permitted for the same RTRV command, but the final response must have a COMPLD completion code.

When the <*ctag*> of an input command cannot be identified (e.g., during dial-up asynchronous connections with noise and errors prevalent), either the 2-letter acknowledgment NA may be returned or the DENY response containing the appropriate error message with the <*ctag*> set to the single character *zero (*0) may be returned.

3.3.3 Text Block

The optional *text block* is used to represent information specific to the particular output response. The form of the *response text* is

```
((<cr><lf>^^^<unquoted line>)|
  (<cr><lf>^^^<quoted line>)|
  (<cr><lf>^^^<comment>))*
```

It consists of three possible types of components, namely, <*unquoted line*>, <*quoted line*>, or <*comment*>. Both <*unquoted line*> and <*quoted line*> are machine parsable, while <*comment*> is not. Each type of component may appear zero or more times within the *text block* and interleave with other component types in any order.

The <*unquoted line*> consists of name- or position-defined parameters separated by required whitespace *(*<*ws*>) and optional commas. A whitespace is a space character, a horizontal tab, a vertical tab, or a form feed. The most popular usage of the unquoted line component is for representing error codes in some response messages, e.g., in a denial response (i.e., when the response code is DENY). The error code is specified by four characters that may contain numerals after the first character, if appropriate (e.g., SN4W for Status error, Not equipped 4-Wire circuit).

The <*quoted line*> consists of parsable text and is always preceded and followed by the *double-quote* character ("). The syntax of the parsable text is equivalent to that of an input command message, i.e., a series of colon-delimited parameter blocks. Parameters within each block are separated by required commas and optional format effectors. Format effectors are space, horizontal tab, vertical tab, form feed, carriage return, and line feed.

The comment component is used to allow free format (i.e., human readable, not machine parsable) text. The free form text shall always be preceded by the pair of characters *slash asterisk (/*) and followed by the pair of characters *asterisk slash (*/). Note that either the *semicolon* (;) or the *greater than* (>) character does not terminate the output response message when they are present as part of a quoted line or within a text string.

3.3.4 Terminator

The form of the *terminator* is:

```
<cr> <lf> ( ; | > )
```

and is required as the termination block for all TL1 message types . The terminator is represented by either the *semicolon (*;) character or the *greater than* (>) character. The *semicolon (*;) character is used to indicate the termination of the output response message. The *greater than* (>) character is used to indicate that more output associated with this response will follow under another header.

The specified size of an output message may not exceed 4096 bytes. If the size of an output response message exceeds 4096 bytes, the output information is partitioned into multiple output response messages. A *continuation message* (i.e., subsequent message) must have another *header* and *response identification* with the same <*ctag*>, along with an additional <*text block*>. Each message is terminated by the *greater than* (>) character, except the last message, which is terminated by the *semicolon* (;) character to indicate the completion of the response. The (>) terminator is also used for intermediate responses in a timed measurement series.

3.4 Autonomous Messages

An *autonomous (automatic) message* is one generated by the switch either on a periodic timed basis or to report some unusual occurrence. It is sent without having an explicit input message associated with it. Typical scenarios where autonomous messages are used include:

- Reporting of alarmed and/or non-alarmed trouble events
- Reporting of scheduled diagnostic tests in the switch
- Reporting of Performance Monitoring Data
- Reporting of a change in the switch's database
- Periodic reporting of selected switch conditions.

The general structure of a TL1 autonomous message is:

```
<header> <auto id> [<text block>] <terminator>
```

The required *header* block represents information common to all output response and autonomous messages. The required *auto id* block identifies the severity and the nature of the autonomous message. This block contains the parameters *almcde* and *ATAG*, which are discussed in the following two subsections. The optional *text block* represents information specific to the particular autonomous message. The *terminator* indicates the completion or continuation of the autonomous message.

3.4.1 Header

The *header* is the standard response header defined in paragraph 3.3.1 above. It contains a system identifier *(<sid>)* and date and time stamps.

3.4.2 Autonomous Message Identification

The form of the *<auto id>* entry for an autonomous message is:

```
<cr> <lf> <almcde>^<atag>^<verb>
   [^<modifier>[^<modifier>]]
```

and comprises an *alarm code (<almcde>)*, an *autonomously-generated correlation tag (<atag>)*, and a *<verb>[^<modifier>[^<modifier>]]* entry.

3.4.2.1 Alarm Code (<almcde>)

The alarm code indicates the severity of an autonomous message. Valid values for *<almcde>* in decreasing order of severity are as follows:

<almcde>	Description
*C	Critical alarm
**	Major alarm
*^	Minor alarm
A^	Non-alarm message

Critical, Major, and Minor correspond to the reporting of alarmed events. The *Non-alarm message* designation is used when the switch is reporting non-alarmed events, periodic measurements, or results of previously scheduled diagnostics or audits. If multiple alarms are reported in the same message, the alarm code is the highest severity of those being reported.

3.4.2.2 Autonomously-Generated Correlation Tag (<atag>)

ATAG (Autonomously-generated correlation Tag) is a numeric transaction identifier similar to CTAG (see subsection 3.1.2.3). It is sequentially assigned by the switch and must be included in all autonomous messages. The TL1 agent automatically generates the ATAG value, which is used exclusively as a sequence number for autonomous messages. The value is a number from 1 to 9999. The first ATAG used is "1" when the agent first initializes or is reset. It automatically wraps. OSSs can use the ATAG to spot if messages are being lost.

3.4.2.3 <verb>[^<modifier>[^<modifier>]]

The *<verb>*[^*<modifier>*[^*<modifier>]]* entry identifies the nature of the spontaneous output and allows for quick identification of the semantics of the information in the text block. It consists of up to three valid TL1 identifiers separated by the *space character*, represented by a *caret* (^). The first identifier *(<verb>*) is the autonomous message verb and is a required entry. In most cases, the verb in an autonomous message will be REPT (Report). The autonomous message verb can have up to two optional modifiers. The first identifier following the verb modifies the verb. The second identifier specifies the object generating the message. Certain modifiers mean that the *<aid>* parameter (if it exists) is addressing a particular type of entity in the switch.

3.4.3 Text Block

The optional *text block* is used to represent information specific to the particular output response. The form of the *response text* is

```
((<cr><lf>^^^<unquoted line>)|
  (<cr><lf>^^^<quoted line>)|
  (<cr><lf>^^^<comment>))*
```

It consists of three possible types of components, namely, *<unquoted line>*, *<quoted line>*, or *<comment>*. Both *<unquoted line>* and *<quoted line>* are machine parsable, while *<comment>* is not. Each type of component may appear zero or more times within the *text block* and interleave with other component types in any order. Refer back to paragraph 3.3.3 for a more complete description of the individual components.

3.4.4 Terminator

The form of the *terminator* is:

```
<cr> <lf> ( ; | > )
```

and is required as the termination block for all TL1 message types. See paragraph 3.3.4 for more information regarding terminator types, and message size and continuation.

4. User Access Privilege Levels

User access privilege levels for commands are defined below in descending order of security. Higher levels include lower levels.

AccessPrivilege Levels	Description
ADMIN	Administrative permits the user to perform all TL1 commands including managing user accounts or profiles and downloading new software.
SW	SoftWare, in addition to all commands with security levels SA, NSA, and VIEW, allows the user to issue commands to download software. This level of access security applies to the System command CPY-MEM.
SA	Service-Affecting, in addition to all commands with security levels NSA and VIEW, allows the user to issue service-affecting commands. This level applies to DSFacility, Equipment, Signalling, and Test commands, and System command ED-DAT.
NSA	Non-Service-Affecting, in addition to all commands with security level VIEW, allows the user to issue non-service-affecting commands. This level applies to Log commands, System commands (excepting CPY-MEM and ED-DAT), and DSFacility commands ALW/INH/SCHED-PMREPT, INIT-REG, and SET-TH.
VIEW	VIEW allows the user to issue RTRV commands (except RTRV-IPHOST-SECU and RTRV-USER-SECU, which are ADMIN level) to view the switch's status and statistics information. This lowest level of access security also applies to ACT-USER (to log on), CANC-USER (to log off), ED-PID (with which users can change their passwords), and to REPT autonomous messages.

ALW/INH/OPR/RLS-LPBK-OC12

Commands:

ALW-LPBK-OC12: Allow Loopback OC12 Facility

INH-LPBK-OC12: Inhibit Loopback OC12 Facility

OPR-LPBK-OC12: Operate Loopback OC12 Facility

RLS-LPBK-OC12: Release Loopback OC12 Facility

Descriptions:

ALW-LPBK-OC12 permits the switch to automatically operate loopbacks on a specified OC12 port in the switch. This command controls whether the switch will respond to remote loopback requests.

INH-LPBK-OC12 lets the user prevent remote automatic loopback on an OC12 port.

OPR-LPBK-OC12 lets the user operate a loopback on a specified OC12 port associated with a test access session in the switch. The loop may be accomplished at either the near or the far end. The switch issues an error response if not in a state that allows a loopback to occur. A switch that has a loopback in effect includes the appropriate condition type information in response to a RTRV COND message.

RLS-LPBK-OC12 lets the user release a loopback on a specified OC12 port associated with a test access session in the switch. The loop may be released from either the near or the far end. The switch issues an error response if not in a state that allows a loopback to occur. A switch that has a loopback in effect includes the appropriate condition type information in response to a RTRV COND message.

Category: Facility **Security:** SA for all commands

Input Formats:

```
ALW-LPBK-OC12:[TID]:<src>:[CTAG];

INH-LPBK-OC12:[TID]:<src>:[CTAG];

OPR-LPBK-OC12:[TID]:<lpbk_id>:[CTAG]::[<locn>],
   [<orgn>],[<intext>],[<lpbktype>];

RLS-LPBK-OC12:[TID]:<lpbk_id>:[CTAG]::[<locn>],
   [<orgn>],[<intext>],[<lpbktype>];
```

Output Format: none

Parameters:

src Identifies the AID (for ALW/INH) as an OC12 port on an I/O Module in the switch.

Type: OC
Range: IOM-{8,10}-OC12-{1-4}
Default value: none

lpbk_id Identifies the AID (for OPR/RLS) as the OC12 port on an I/O module in the switch on which the loopback is performed or released.

Type: OC
Range: IOM-{8,10}-OC12-{1-4}
Default value: none

locn Identifies the location where the loopback occurs. The value "FEND" is not supported.

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: NEND

orgn Identifies the office originating the looped-back signal. A null value indicates that this parameter is not applicable. This parameter is not supported presently; leave it blank.

Type: enum
Range: FEND = Far end office
NEND = Near end office
BOTH = Both offices
Default value: null

intext Directs the switch to provide or release a loopback that is with/without the benefit of signal processing, such as reshaping, recoding, scrambling, retiming, etc. A null value indicates that this parameter is not applicable. This parameter is not supported presently; leave it blank.

Type: enum
Range: EXT = External
INT = Internal
Default value: null

lpbktype Identifies the type of loopback signal to be operated or released. Depending on the transmission system, various parts of a signal may be looped back. For example, the LINE loopback may very well be a full metallic loopback, while a PAYLOAD loopback may result in a signal that has been recoded with new and different header and/or CRC information. However, loopbacks on OC12 ports can only be the LINE type.

Type: enum
Range: LINE = 622.08 Mbps loopback signal
Default value: LINE

Input Examples:

```
ALW-LPBK-OC12::IOM-8-OC12-1;
INH-LPBK-OC12::IOM-8-OC12-1;
OPR-LPBK-OC12::IOM-8-OC12-1:::NEND,,,LINE;
RLS-LPBK-OC12::IOM-8-OC12-1:::NEND,,,LINE;
```

Related Commands: none

ALW/INH/OPR/RLS-LPBK-OC3

Commands:

ALW-LPBK-OC3: Allow Loopback OC3 Facility

INH-LPBK-OC3: Inhibit Loopback OC3 Facility

OPR-LPBK-OC3: Operate Loopback OC3 Facility

RLS-LPBK-OC3: Release Loopback OC3 Facility

Descriptions:

ALW-LPBK-OC3 permits the switch to automatically operate loopbacks on a specified OC3 port in the switch. This command controls whether the switch will respond to remote loopback requests.

INH-LPBK-OC3 lets the user prevent remote automatic loopback on an OC3 port.

OPR-LPBK-OC3 lets the user operate a loopback on a specified OC3 port associated with a test access session in the switch. The loop may be accomplished at either the near or the far end. The switch issues an error response if not in a state that allows a loopback to occur. A switch that has a loopback in effect includes the appropriate condition type information in response to a RTRV COND message.

RLS-LPBK-OC3 lets the user release a loopback on a specified OC3 port associated with a test access session in the switch. The loop may be released from either the near or the far end. The switch issues an error response if not in a state that allows a loopback to occur. A switch that has a loopback in effect includes the appropriate condition type information in response to a RTRV COND message.

Category: Facility **Security:** SA for all commands

Input Formats:

```
ALW-LPBK-OC3:[TID]:<src>:[CTAG];

INH-LPBK-OC3:[TID]:<src>:[CTAG];

OPR-LPBK-OC3:[TID]:<lpbk_id>:[CTAG]::[<locn>],
   [<orgn>],[<intext>],[<lpbktype>];

RLS-LPBK-OC3:[TID]:<lpbk_id>:[CTAG]::[<locn>],
   [<orgn>],[<intext>],[<lpbktype>];
```

Output Format: none

Parameters:

src Identifies the AID (for ALW/INH) as an OC3 port on an I/O Module in the switch.

Type: OC
Range: IOM-{8,10}-OC3-{1-4}
Default value: none

lpbk_id Identifies the AID (for OPR/RLS) as the OC3 port on an I/O module in the switch on which the loopback is performed or released.

Type: OC
Range: IOM-{8,10}-OC3-{1-4}
Default value: none

locn Identifies the location where the loopback occurs. The value "FEND" is not supported.

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: NEND

orgn Identifies the office originating the looped-back signal. A null value indicates that this parameter is not applicable. This parameter is not supported presently; leave it blank.

Type: enum
Range: FEND = Far end office
NEND = Near end office
BOTH = Both offices
Default value: null

intext Directs the switch to provide or release a loopback that is with/without the benefit of signal processing, such as reshaping, recoding, scrambling, retiming, etc. A null value indicates that this parameter is not applicable. This parameter is not supported presently; leave it blank.

Type: enum
Range: EXT = External
INT = Internal
Default value: null

lpbktype Identifies the type of loopback signal to be operated or released. Depending on the transmission system, various parts of a signal may be looped back. For example, the LINE loopback may very well be a full metallic loopback, while a PAYLOAD loopback may result in a signal that has been recoded with new and different header and/or CRC information. However, loopbacks on OC3 ports can only be the LINE type.

Type: enum
Range: LINE = 155.52 Mbps loopback signal
Default value: LINE

Input Examples:

```
ALW-LPBK-OC3::IOM-8-OC3-1;
INH-LPBK-OC3::IOM-8-OC3-1;
OPR-LPBK-OC3::IOM-8-OC3-1:::NEND,,,LINE;
RLS-LPBK-OC3::IOM-8-OC3-1:::NEND,,,LINE;
```

Related Commands: none

ALW/INH/OPR/RLS-LPBK-STS1

Commands:

ALW-LPBK-STS1: Allow Loopback STS1 Facility

INH-LPBK-STS1: Inhibit Loopback STS1 Facility

OPR-LPBK-STS1: Operate Loopback STS1 Facility

RLS-LPBK-STS1: Release Loopback STS1 Facility

Descriptions:

ALW-LPBK-STS1 permits the switch to automatically operate loopbacks on a specified STS1 port in the switch. This command controls whether the switch will respond to remote loopback requests.

INH-LPBK-STS1 lets the user prevent remote automatic loopback on an STS1 port.

OPR-LPBK-STS1 lets the user operate a loopback on a specified STS1 port associated with a test access session in the switch. The loop may be accomplished at either the near or the far end. The switch issues an error response if not in a state that allows a loopback to occur. A switch that has a loopback in effect includes the appropriate condition type information in response to a RTRV COND message.

RLS-LPBK-STS1 lets the user release a loopback on a specified STS1 port associated with a test access session in the switch. The loop may be released from either the near or the far end. The switch issues an error response if not in a state that allows a loopback to occur. A switch that has a loopback in effect includes the appropriate condition type information in response to a RTRV COND message.

Category: Facility **Security:** SA for all commands

Input Formats:

```
ALW-LPBK-STS1:[TID]:<lpbk_id>:[CTAG];

INH-LPBK-STS1:[TID]:<lpbk_id>:[CTAG];

OPR-LPBK-STS1:[TID]:<lpbk_id>:[CTAG]::[<locn>],
   [<orgn>],[<intext>],[<lpbktype>];

RLS-LPBK-STS1:[TID]:<lpbk_id>:[CTAG]::[<locn>],
   [<orgn>],[<intext>],[<lpbktype>];
```

Output Format: none

Parameters:

lpbk_id Identifies the AID as an STS1 port on an I/O module in the switch.

Type: STS1
Range: IOM-{1-17}-STS1-{1-8}
Default value: none

locn Identifies the location where the loopback occurs. The value "FEND" is not supported.

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: NEND

orgn Identifies the office originating the looped-back signal. A null value indicates that this parameter is not applicable. This parameter is not supported presently; leave it blank.

Type: enum
Range: FEND = Far end office
NEND = Near end office
BOTH = Both offices
Default value: null

intext Directs the switch to provide or release a loopback that is with/without the benefit of signal processing, such as reshaping, recoding, scrambling, retiming, etc. A null value indicates that this parameter is not applicable. This parameter is not supported presently; leave it blank.

Type: enum
Range: EXT = External
INT = Internal
Default value: null

lpbktype Identifies the type of loopback signal to be operated or released. Depending on the transmission system, various parts of a signal may be looped back. For example, the LINE loopback may very well be a full metallic loopback, while a PAYLOAD loopback may result in a signal that has been recoded with new and different header and/or CRC information. However, loopbacks on STS1 ports can only be the LINE type. A null value indicates that this parameter is not applicable.

Type: enum
Range: LINE = 51.84 Mbps loopback signal
Default value: null

Input Examples:

```
ALW-LPBK-STS1::IOM-1-STS-1;
INH-LPBK-STS1::IOM-1-STS-1;
OPR-LPBK-STS1::IOM-1-STS-1:::NEND,,,LINE;
RLS-LPBK-STS1::IOM-1-STS-1:::NEND,,,LINE;
```

Related Commands: none

ALW/INH/OPR/RLS-LPBK-T1

Commands:

ALW-LPBK-T1: Allow Loopback DS1 Facility

INH-LPBK-T1: Inhibit Loopback DS1 Facility

OPR-LPBK-T1: Operate Loopback DS1 Facility

RLS-LPBK-T1: Release Loopback DS1 Facility

Descriptions:

ALW-LPBK-T1 permits the switch to automatically operate loopbacks on a specified T1 port in the switch. This command controls whether the switch will respond to remote loopback requests.

INH-LPBK-T1 lets the user prevent remote automatic loopback on a T1 port.

OPR-LPBK-T1 lets the user operate a loopback on a specified T1 port associated with a test access session in the switch. The loop may be accomplished at either the near or the far end. The switch issues an error response if not in a state that allows a loopback to occur. A switch that has a loopback in effect includes the appropriate condition type information in response to a RTRV COND message.

RLS-LPBK-T1 lets the user release a loopback on a specified T1 port associated with a test access session in the switch. The loop may be released from either the near or the far end. The switch issues an error response if not in a state that allows a loopback to occur. A switch that has a loopback in effect includes the appropriate condition type information in response to a RTRV COND message.

Category: Facility **Security:** SA for all commands

Input Formats:

```
ALW-LPBK-T1:[TID]:<src>:[CTAG];

INH-LPBK-T1:[TID]:<src>:[CTAG];

OPR-LPBK-T1:[TID]:<lpbk_id>:[CTAG]::[<locn>],[<orgn>],
   [<intext>],[<lpbktype>];

RLS-LPBK-T1:[TID]:<lpbk_id>:[CTAG]::[<locn>],[<orgn>],
   [<intext>],[<lpbktype>];
```

Output Format: none

Parameters:

src Identifies the AID (for ALW/INH) as a T1 port on an I/O Module in the switch.

Type: PORT
Range: IOM-{1-17}-PORT-{1-28}
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}
IOM-{1-17}-T3-{1-8}-PORT-{1-28}
Default value: none

lpbk_id Identifies the AID (for OPR/RLS) as the T1 port on an I/O module in the switch on which the loopback is performed or released.

Type: PORT
Range: IOM-{1-17}-PORT-{1-28}
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}
IOM-{1-17}-T3-{1-8}-PORT-{1-28}
Default value: none

locn Identifies the location where the loopback occurs. The value "FEND" is not supported.

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: NEND

orgn Identifies the office originating the looped-back signal. A null value indicates that this parameter is not applicable. This parameter is not supported presently; leave it blank.

Type: enum
Range: FEND = Far end office
NEND = Near end office
BOTH = Both offices
Default value: null

intext Directs the switch to provide or release a loopback that is with/without the benefit of signal processing, such as reshaping, recoding, scrambling, retiming, etc. A null value indicates that this parameter is not applicable. This parameter is not supported presently; leave it blank.

Type: enum
Range: EXT = External
INT = Internal
Default value: null

lpbktype Identifies the type of loopback signal to be operated or released. Depending on the transmission system, various parts of a signal may be looped back. For example, the LINE loopback may very well be a full metallic loopback, while a PAYLOAD loopback may result in a signal that has been recoded with new and different header and/or CRC information.

Type: enum
Range: LINE = 1.544 Mbps loopback signal
PAYLOAD = 1.544 Mbps loopback signal with framing stripped and then regenerated
Default value: LINE

Input Examples:

```
ALW-LPBK-T1::IOM-1-PORT-1;
INH-LPBK-T1::IOM-1-PORT-1;
OPR-LPBK-T1::IOM-1-PORT-1:::NEND,,,LINE;
RLS-LPBK-T1::IOM-1-PORT-1:::NEND,,,LINE;
```

Related Commands: none

ALW/INH/OPR/RLS-LPBK-T3

Commands:

ALW-LPBK-T3: Allow Loopback DS3 Facility

INH-LPBK-T3: Inhibit Loopback DS3 Facility

OPR-LPBK-T3: Operate Loopback DS3 Facility

RLS-LPBK-T3: Release Loopback DS3 Facility

Descriptions:

ALW-LPBK-T3 permits the switch to automatically operate loopbacks on a specified T3 port in the switch. This command controls whether the switch will respond to remote loopback requests.

INH-LPBK-T3 lets the user prevent remote automatic loopback on a T3 port.

OPR-LPBK-T3 lets the user operate a loopback on a specified T3 port associated with a test access session in the switch. The loop may be accomplished at either the near or the far end. The switch issues an error response if not in a state that allows a loopback to occur. A switch that has a loopback in effect includes the appropriate condition type information in response to a RTRV COND message.

RLS-LPBK-T3 lets the user release a loopback on a specified T3 port associated with a test access session in the switch. The loop may be released from either the near or the far end. The switch issues an error response if not in a state that allows a loopback to occur. A switch that has a loopback in effect includes the appropriate condition type information in response to a RTRV COND message.

Category: Facility **Security:** SA for all commands

Input Formats:

```
ALW-LPBK-T3:[TID]:<src>:[CTAG];

INH-LPBK-T3:[TID]:<src>:[CTAG];

OPR-LPBK-T3:[TID]:<lpbk_id>:[CTAG]::[<locn>],[<orgn>],
   [<intext>],[<lpbktype>];

RLS-LPBK-T3:[TID]:<lpbk_id>:[CTAG]::[<locn>],[<orgn>],
   [<intext>],[<lpbktype>];
```

Output Format: none

Parameters:

src Identifies the AID (for ALW/INH) as a T3 port on a DS3 I/O Module in the switch.

Type: T3
Range: IOM-{1-17}-T3-{1-8}
Default value: none

lpbk_id Identifies the AID (for OPR/RLS) as the T3 port on an I/O module in the switch on which the loopback is performed or released.

Type: T3
Range: IOM-{1-17}-T3-{1-8}
Default value: none

locn Identifies the location where the loopback occurs. The value "FEND" is not supported.

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: NEND

orgn Identifies the office originating the looped-back signal. A null value indicates that this parameter is not applicable. This parameter is not supported presently; leave it blank.

Type: enum
Range: FEND = Far end office
NEND = Near end office
BOTH = Both offices
Default value: null

intext Directs the switch to provide or release a loopback that is with/without the benefit of signal processing, such as reshaping, recoding, scrambling, retiming, etc. A null value indicates that this parameter is not applicable. This parameter is not supported presently; leave it blank.

Type: enum
Range: EXT = External
INT = Internal
Default value: null

lpbktype Identifies the type of loopback signal to be operated or released. Depending on the transmission system, various parts of a signal may be looped back. For example, the LINE loopback may very well be a full metallic loopback, while a PAYLOAD loopback may result in a signal that has been recoded with new and different header and/or CRC information. However, loopbacks on T3 ports can only be the LINE type.

Type: enum
Range: LINE = 44.736 Mbps loopback signal
Default value: LINE

Input Examples:

```
ALW-LPBK-T3::IOM-1-T3-1;
INH-LPBK-T3::IOM-1-T3-1;
OPR-LPBK-T3::IOM-1-T3-1:::NEND,,,LINE;
RLS-LPBK-T3::IOM-1-T3-1:::NEND,,,LINE;
```

Related Commands: none

DLT/ED/ENT/RTRV-ENET

Commands:

DLT-ENET: Delete ENET Facility

ED-ENET: Edit ENET Facility

ENT-ENET: Enter ENET Facility

RTRV-ENET: Retrieve ENET Facility

Descriptions:

DLT-ENET lets the user disconnect an ENET port from operation.

ED-ENET lets the user edit parameters associated with an Ethernet port on an I/O module in the switch. These parameters include the port's transmission mode, format, and primary state.

ENT-ENET lets the user establish the parameters associated with an Ethernet port on an I/O module in the switch. These parameters include the port's transmission mode, format, and primary state. ENT-ENET is dependent on ENT-EQPT; that is, ENT-ENET will not work unless ENT-EQPT has already been issued.

RTRV-ENET lets the user retrieve parameters associated with an Ethernet port. These parameters include the port's transmission mode, format, primary state, and secondary state.

Category: Facility **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-ENET:[TID]:<enetId>:[CTAG];

ED-ENET:[TID]:<enetId>:[CTAG]::[MODE=<mode>],
   [FORMAT=<format>]:[<pst>];

ENT-ENET:[TID]:<enetId>:[CTAG]::[MODE=<mode>],
   [FORMAT=<format>]:[<pst>];

RTRV-ENET:[TID]:<enetId>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<enetId>:MODE=<mode>,FORMAT=<format>:<pst>,
      [<sst>]"
;
```

Parameters:

enetId Identifies the AID (for DLT, ED, and RTRV output) as an Ethernet port on an I/O Module in the switch.

Type: ENET
Range: IOM-{8,10}-ENET-{1-4}
Default value: none

enetId Identifies the AID (for ENT and RTRV input) as an I/O module or an Ethernet port on an I/O module in the switch. A null value for the second part of the AID is equivalent to "ALL"; that is, by leaving the field blank, parameters will be returned for all Ethernet ports configured on the specified I/O module.

Type: IOMorENET
Range: IOM-{8,10}[-ENET-{1-4}]
Default value: none

mode Identifies the transmission mode for the port; that is, whether communication on the port is in one direction at a time (half-duplex), both directions simultaneously (full-duplex), or whether the mode is determined automatically.

Type: enum
Range: AUTONEG = mode automatically negotiated
FULLDUPLEX = full-duplex mode
HALFDUPLEX = half-duplex mode
Default value: AUTONEG

format Identifies the Ethernet format. Reset the I/O module after changing the format, either by changing the state with the ED-EQPT command to OOS, then to IS, or by sequentially executing RMV-EQPT and RST-EQPT.

Type: enum
Range: ENET_802_3 = 802.3 format
ENET_DIX_II = Dix II format
Default value: ENET_802_3

pst Identifies the primary state of the port. The value indicates the desired state of the port. A null value means no change to the current value.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: IS

sst Identifies the secondary state of the port. The value indicates the desired secondary state of the port. A null value means no change to the current value.

Type: enum
Range: ACT = Active
FAF = Facilities Failure
FEPO = Far End Processor Outage
FLT = Faulted
LPBK = Loopback
SGEO = Supporting Entity Outage
UAS = Unassigned
WRK = Working
Default value: AINS

Input Examples:

```
DLT-ENET::IOM-8-ENET-1;

ED-ENET::IOM-8-ENET-1:::MODE=AUTONEG,
   FORMAT=ENET_802_3:IS;

ENT-ENET::IOM-8-ENET-1:::MODE=AUTONEG,
   FORMAT=ENET_802_3:IS;

RTRV-ENET::IOM-8-ENET-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-8-ENET-1:AUTONEG=ON,MODE=FULL,
      FORMAT=ENET_802_3:IS,ACT"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-ENET-ENDPTVOIP

Commands:

DLT-ENET-ENDPTVOIP: Delete ENET Facility Endpoint

ED-ENET-ENDPTVOIP: Edit ENET Facility Endpoint

ENT-ENET-ENDPTVOIP: Enter ENET Facility Endpoint

RTRV-ENET-ENDPTVOIP: Retrieve ENET Facility Endpoint

Descriptions:

DLT-ENET-ENDPTVOIP lets the user end the association of an Ethernet port with an Ethernet endpoint.

ED-ENET-ENDPTVOIP lets the user edit parameters of an Ethernet endpoint associated with an Ethernet port. These parameters include the subnet mask, the default gateway, whether to enable IP link monitoring, the heartbeat frequency, the maximum heartbeat timeouts allowed, the usable bandwidth percentage, the maximum number of packets per second allowed, and the primary state.

ENT-ENET-ENDPTVOIP lets the user establish the association of an Ethernet port with an Ethernet endpoint. Parameters include the subnet mask, the default gateway, whether to enable IP link monitoring, the heartbeat frequency, the maximum heartbeat timeouts allowed, the usable bandwidth percentage, the maximum number of packets per second allowed, and the primary state. ENT-ENET-ENDPTVOIP is dependent on ENT-EQPT; that is, ENT-ENET-ENDPTVOIP will not work unless ENT-EQPT has already been issued.

RTRV-ENET-ENDPTVOIP lets the user retrieve parameters associated with an Ethernet endpoint. These parameters include the primary and secondary IP addresses, the subnet mask, the default gateway, whether to enable IP link monitoring, the heartbeat frequency, the maximum heartbeat timeouts allowed, the usable bandwidth percentage, the maximum number of packets per second allowed, and the primary state.

Category: Facility **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-ENET-ENDPTVOIP:[TID]:<enetId>:[CTAG];

ED-ENET-ENDPTVOIP:[TID]:<enetId>:[CTAG]::
   [SUBNETMASK=<subnetmask>],
   [DEFAULTGATEWAY=<defaultgateway>],
   [IPLNKMON=<ipLnkMon>],[LNKMONPER=<lnkMonPer>],
   [LNKMAXTMOUTS=<lnkMaxTmouts>],[BWLMT=<bwLmt>],
   [PKTLMT<pktLmt>]:<pst>;

ENT-ENET-ENDPTVOIP:[TID]:<enetId>:[CTAG]::
   IPADDR=<ipaddr>,MATEIPADDR=<mateipaddr>,
   SUBNETMASK=<subnetmask>,
   DEFAULTGATEWAY=<defaultgateway>,
   [IPLNKMON=<ipLnkMon>],[LNKMONPER=<lnkMonPer>],
   [LNKMAXTMOUTS=<lnkMaxTmouts>],[BWLMT=<bwLmt>],
   [PKTLMT<pktLmt>]:<pst>;

RTRV-ENET-ENDPTVOIP:[TID]:[<enetId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<enetId>:IPADDRESS=<ipaddress>,
      MATEIPADDR=<mateipaddr>,SUBNETMASK=<subnetmask>,
      DEFAULTGATEWAY=<defaultgateway>,
      IPLNKMON=<ipLnkMon>,LNKMONPER=<lnkMonPer>,
      LNKMAXTMOUTS=<lnkMaxTmouts>,BWLMT=<bwLmt>,
      PKTLMT<pktLmt>:<pst>"
;
```

Parameters:

enetId Identifies the AID (for DLT, ED, and RTRV output) as an Ethernet port on an I/O Module in the switch.

Type: ENET
Range: IOM-{8,10}-ENET-{1-4}
Default value: none

enetId Identifies the AID (for ENT and RTRV input) as an I/O module or an Ethernet port on an I/O module in the switch. A null value for the second part of the AID is equivalent to "ALL"; that is, by leaving the field blank, parameters will be entered or returned for all Ethernet ports configured on the specified I/O module.

Type: IOMorENET
Range: IOM-{8,10}[-ENET-{1-4}]
Default value: none

ipaddress Identifies the IP address for the Ethernet endpoint.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

mateipaddress Identifies the IP address for the standby Ethernet port on the protection IOM.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

subnetmask Identifies the subnet mask.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

defaultgateway Identifies the default gateway.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

ipLnkMon Identifies whether to enable IP link monitoring for a valid remote peer IP address.

Type: BoolYN
Range: N = do not enable IP link monitoring
Y = enable IP link monitoring
Default value: Y

lnkMonPer Identifies the frequency, in seconds, that IP ping heartbeat messages are sent by the VoIP IOM.

Type: integer
Range: {1-5}, in 0.5 increments
Default value: 1

lnkMaxTmouts Identifies the number of consecutive IP ping heartbeat time-outs allowed before loss of IP connectivity and subsequent ENA-IOM failover occurs. When the ENA-IOM is connected to a router through a series of switches that have 802.1D spanning tree protocol enabled (and the value of *lnkMonPer* is "1"), the number of consecutive timeouts must be greater than three times the configured forward delay timer configured in the Ethernet switches (default is 15 seconds).

Type: integer
Range: {10-65535}
Default value: 60

bwLmt Identifies the percentage of the bandwidth for the port that can be used.

Type: integer
Range: {0-100}
Default value: 100

pktLmt Identifies the maximum number of packets per second allowed for the PVC endpoint. A value of "0" signifies no limit.

Type: integer
Range: {0, 10000-500000}
Default value: 0

pst Identifies the primary state of the port. The value indicates the desired state of the port. A null value means no change to the current value.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: none

Input Examples:

```
DLT-ENET-ENDPTVOIP::IOM-8-ENET-1;

ED-ENET-ENDPTVOIP::IOM-8-ENET-1:::
   SUBNETMASK=255.255.255.00,DEFAULTGATEWAY=10.0.0.90,
   IPLNKMON=Y,LNKMONPER=1,LNKMAXTMOUTS=60,BWLMT=100,
   PKTLMT=0:PST=IS;

ENT-ENET-ENDPTVOIP::IOM-8-ENET-1:::
   IPADDRESS=10.0.0.89,MATEIPADDRESS=10.0.0.91,
   SUBNETMASK=255.255.255.00,DEFAULTGATEWAY=10.0.0.90,
   IPLNKMON=Y,LNKMONPER=1,LNKMAXTMOUTS=60,BWLMT=100,
   PKTLMT=0:PST=IS;

RTRV-ENET-ENDPTVOIP::IOM-8-ENET-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-8-ENET-1:IPADDRESS=10.0.0.89,
      MATEIPADDRESS=10.0.0.91,
      SUBNETMASK=255.255.255.00,
      DEFAULTGATEWAY=10.0.0.90,IPLNKMON=Y,LNKMONPER=1,
      LNKMAXTMOUTS=60,BWLMT=100,PKTLMT=0:PST=IS"
;
```

Related Commands:

DLT/ED/ENT/RTRV-PVC-ENDPTVOIP

DLT/ED/ENT/RTRV-OC12

Commands:

DLT-OC12: Delete OC12 Facility

ED-OC12: Edit OC12 Facility

ENT-OC12: Enter OC12 Facility

RTRV-OC12: Retrieve OC12 Facility

Descriptions:

DLT-OC12 lets the user disconnect an OC12 port from operation.

ED-OC12 lets the user edit parameters associated with an OC12 port on an I/O module in the switch. These parameters include line code, primary state, and secondary state.

ENT-OC12 lets the user establish the parameters associated with an OC12 port on an I/O module in the switch. These parameters include line code, primary state, and secondary state. ENT-OC12 is dependent on ENT-EQPT; that is, ENT-OC12 will not work unless ENT-EQPT has already been issued.

RTRV-OC12 lets the user retrieve parameters associated with an OC12 port. These parameters include line code, primary state, and secondary state.

Category: Facility **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-OC12:[TID]:<oc_id>:[CTAG];

ED-OC12:[TID]:<oc_id>:[CTAG]::[LINECDE=<linecde>]:
   [<pst>],[<sst>];

ENT-OC12:[TID]:<oc_id>:[CTAG]::[LINECDE=<linecde>]:
   [<pst>],[<sst>];

RTRV-OC12:[TID]:<oc_id>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<oc_id>:LINECDE=<linecde>:<pst>,[<sst>]"
;
```

Parameters:

oc_id Identifies the AID (for DLT, ED, and RTRV output) as an OC12 port on an I/O Module in the switch.

Type: OC
Range: IOM-{8,10}-OC12-{1-4}
Default value: none

oc_id Identifies the AID (for ENT and RTRV input) as an OC12 I/O Module or an OC12 port on an I/O Module in the switch.

Type: IOMorOC
Range: IOM-{8,10}
IOM-{8,10}-OC12-{1-4}
Default value: none

linecde Identifies the signal inserted for zero code suppression on an OC12. This parameter is reserved for future use; leave it blank.

Type: enum
Range: NRZ = Non-Return to Zero
RZ = Return to Zero
Default value: NRZ

pst Identifies (in ED and ENT) the primary state of the port. The value indicates the desired state of the port. A null value means no change to the current value.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: IS

pst Identifies (in RTRV output) the primary state of the port.

Type: enum
Range: IS = In-Service
OOS-AU = Out-Of-Service, Autonomous
OOS-AUMA = Out-Of-Service, Autonomous and Managed
OOS-MA = Out-Of-Service, Managed
Default value: IS

sst Identifies the secondary state of the port. The value indicates the desired secondary state of the port. A null value means no change to the current value.

Type: enum
Range: FLT = Faulted
FRCD = Forced
MAN = Manual
PSI = Protection switch Inhibited
PRTN = Protection
SGEO = Supporting Entity Outage
WRK = Working
WTR = Wait To Restore
Default value: NULL

Input Examples:

```
DLT-OC12::IOM-8-OC12-1;
ED-OC12::IOM-8-OC12-1:::LINECDE=NRZ:IS,AINS;
ENT-OC12::IOM-8-OC12-1:::LINECDE=NRZ:IS,AINS;
RTRV-OC12::IOM-8-OC12-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-8-OC12-1:LINECDE=NRZ:IS,WRK"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-OC3

Commands:

DLT-OC3: Delete OC3 Facility

ED-OC3: Edit OC3 Facility

ENT-OC3: Enter OC3 Facility

RTRV-OC3: Retrieve OC3 Facility

Descriptions:

DLT-OC3 lets the user disconnect an OC3 port from operation.

ED-OC3 lets the user edit parameters associated with an OC3 port on an I/O module in the switch. These parameters include line code, primary state, and secondary state.

ENT-OC3 lets the user establish the parameters associated with an OC3 port on an I/O module in the switch. These parameters include line code, primary state, and secondary state. ENT-OC3 is dependent on ENT-EQPT; that is, ENT-OC3 will not work unless ENT-EQPT has already been issued.

RTRV-OC3 lets the user retrieve parameters associated with an OC3 port. These parameters include line code, primary state, and secondary state.

Category: Facility **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-OC3:[TID]:<oc_id>:[CTAG];

ED-OC3:[TID]:<oc_id>:[CTAG]::[LINECDE=<linecde>]:
   [<pst>],[<sst>];

ENT-OC3:[TID]:<oc_id>:[CTAG]::[LINECDE=<linecde>]:
   [<pst>],[<sst>];

RTRV-OC3:[TID]:<oc_id>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<oc_id>:LINECDE=<linecde>:<pst>,[<sst>]"
;
```

Parameters:

oc_id Identifies the AID (for DLT, ED, and RTRV output) as an OC3 port on an I/O Module in the switch.

Type: OC
Range: IOM-{8,10}-OC3-{1-4}
Default value: none

oc_id Identifies the AID (for ENT and RTRV input) as an OC3 I/O Module or an OC3 port on an I/O Module in the switch.

Type: IOMorOC
Range: IOM-{8,10}
IOM-{8,10}-OC3-{1-4}
Default value: none

linecde Identifies the signal inserted for zero code suppression on an OC3. This parameter is reserved for future use; leave it blank.

Type: enum
Range: NRZ = Non-Return to Zero
RZ = Return to Zero
Default value: NRZ

pst Identifies (in ED and ENT) the primary state of the port. The value indicates the desired state of the port. A null value means no change to the current value.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: IS

pst Identifies (in RTRV output) the primary state of the port.

Type: enum
Range: IS = In-Service
OOS-AU = Out-Of-Service, Autonomous
OOS-AUMA = Out-Of-Service, Autonomous and Managed
OOS-MA = Out-Of-Service, Managed
Default value: IS

sst Identifies the secondary state of the port. The value indicates the desired secondary state of the port. A null value means no change to the current value.

Type: enum
Range: FLT = Faulted
FRCD = Forced
MAN = Manual
PSI = Protection Switch Inhibited
PRTN = Protection
SGEO = Supporting Entity Outage
WRK = Working
WTR = Wait To Restore
Default value: AINS

Input Examples:

```
DLT-OC3::IOM-8-OC3-1;
ED-OC3::IOM-8-OC3-1:::LINECDE=NRZ:IS,AINS;
ENT-OC3::IOM-8-OC3-1:::LINECDE=NRZ:IS,AINS;
RTRV-OC3::IOM-8-OC3-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-8-OC3-1:LINECDE=NRZ:IS,WRK"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-STS1

Commands:

DLT-STS1: Delete STS1 Facility

ED-STS1: Edit STS1 Facility

ENT-STS1: Enter STS1 Facility

RTRV-STS1: Retrieve STS1 Facility

Descriptions:

DLT-STS1 lets the user disconnect an STS1port from operation.

ED-STS1 lets the user edit parameters associated with an STS1 port on an I/O module in the switch. These parameters include path trace and STS mapping information, line build-out, service mode, primary state, and secondary state.

ENT-STS1 lets the user establish the parameters associated with an STS1 port on an I/O module in the switch. These parameters include path trace and STS mapping information, line build-out, service mode, primary state, and secondary state. ENT-STS1 is dependent on ENT-EQPT; that is, ENT-STS1 will not work unless ENT-EQPT has already been issued.

RTRV-STS1 lets the user retrieve parameters associated with an STS1 port. These parameters include path trace and STS mapping information, line build-out, service mode, primary state, and secondary state.

Category: Facility **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-STS1:[TID]:<sts_id>:[CTAG];

ED-STS1:[TID]:<sts_id>:[CTAG]::[EXPTRC=<exptrc>],
   [STSMAP=<stsmap>],[TRC=<trc>],[LBO=<lbo>],
   [OMODE=<omode>]:[<pst>],[<sst>];

ENT-STS1:[TID]:<sts_id>:[CTAG]::[EXPTRC=<exptrc>],
   [STSMAP=<stsmap>],[TRC=<trc>],[LBO=<lbo>],
   [OMODE=<omode>]:[<pst>],[<sst>];

RTRV-STS1:[TID]:<sts_id>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<sts_id>:EXPTRC=<exptrc>,STSMAP=<stsmap>,
      TRC=<trc>,LBO=<lbo>,OMODE=<omode>:<pst>,<sst>"
;
```

Parameters:

sts_id Identifies the AID (for DLT, ED, and RTRV output) as an STS1 port on an I/O Module in the switch.

Type: STS1
Range: IOM-{1-17}-STS1-{1-8}
Default value: none

sts_id Identifies the AID (for ENT and RTRV input) as an I/O module or an STS1 port on an I/O module in the switch.

Type: IOMorSTS1
Range: IOM-{1-17}
IOM-{1-17}-STS1-{1-8}
Default value: none

exptrc Identifies the expected Path Trace (J1) content.

Type: string
Range: up to 62 ASCII characters
Default value: none

stsmap Identifies the type of mapping supported by the STS-1 SPE (Synchronous Payload Envelope).

Type: enum
Range: VTLOCK = Identifies locked VT (Virtual Tributary, a unit of sub-SONET bandwidth that can be combined, or concatenated, for transmission through the network) mode; can't transport asynchronously mapped VT SPEs.
VTFLOAT = Identifies floating VT mode.
Default value: VTFLOAT

trc Identifies the path trace message to be transmitted. Trace byte (J1) continuously transmits a 64-byte, fixed length ASCII string (the last two bytes of which are a CR and an LF), one byte at a time. A null value causes the switch to transmit 62 NULL chars (Hex 00), a CR, and an LF.

Type: string
Range: up to 62 ASCII characters
Default value: none

lbo Identifies the line build-out (in feet); that is, the attenuation distortion equalization setting to compensate for the length of the coaxial cable connecting to the port.

Type: integer
Range: {0-450}
Default value: not applicable

omode Specifies what will be transmitted from the STS1 output port when out of service.

Type: enum
Range: NORM = Normal (cross-connected data if mapped, idle signal as specified by the IDLE keyword if not mapped)
AIS = Alarm Indication Signal
Default value: AIS

pst Identifies the primary state of the port. The value indicates the desired state of the port. A null value means no change to the current value.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: IS

sst Identifies the secondary state of the port. The value indicates the desired secondary state of the port. A null value means no change to the current value.

Type: enum
Range: ACT = Active
AINS = Automatic, In-service
FAF = Facilities Failure
FLT = Faulted
INIT = Initializing
LPBK = Loopback
MEA = Mismatch of Equipment and Attributes
MON = Monitor
NBK = No Backup
PRI = Protection Release Inhibited
PSI = Protection Switch Inhibited
RWT = Remove Wait state
SGEO = Supporting Entity Outage
STBYC = Standby Cold
STBYH = Standby Hot
UAS = Unassigned
UEQ = Unequipped
WRK = Working
Default value: AINS

Input Examples:

```
DLT-STS1::IOM-1-STS1-1;

ED-STS1::IOM-1-STS1-1:::EXPTRC=EXPECTEDPATHTRACE,
   STSMAP=VTFLOAT,LBO=10,OMODE=AIS:IS,AINS;

ENT-STS1::IOM-1-STS1-1:::EXPTRC=EXPECTEDPATHTRACE,
   STSMAP=VTFLOAT,LBO=10,OMODE=AIS:IS,AINS;

RTRV-STS1::IOM-1-STS1-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-1-STS-1:EXPTRC=EXPECTEDPATHTRACE,
      STSMAP=VTFLOAT,TRC=PATHTRACEMESSAGE,LBO=0,
      OMODE=AIS:IS,ACT"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-T1

Commands:

DLT-T1: Delete DS1 Facility

ED-T1: Edit DS1 Facility

ENT-T1: Enter DS1 Facility

RTRV-T1: Retrieve DS1 Facility

Descriptions:

DLT-T1 lets the user disconnect a T1 port from operation.

ED-T1 lets the user edit parameters associated with a T1 port on an I/O module, or a timing port, in the switch. These parameters include equalization/build-out, framing, line code, service mode, timing reference, primary state, and secondary state.

ENT-T1 lets the user establish the parameters associated with a DS1 port on an I/O module in the switch. These parameters include equalization/build-out, framing, line code, service mode, timing reference, primary state, and secondary state. ENT-T1 is dependent on ENT-EQPT; that is, ENT-T1 will not work unless ENT-EQPT has already been issued.

RTRV-T1 lets the user retrieve parameters associated with a DS1 port. These parameters include equalization/build-out, framing, line code, service mode, timing reference, primary state, and secondary state.

Category: Facility **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-T1:[TID]:<ds_id>:[CTAG];

ED-T1:[TID]:<ds_id>:[CTAG]::[EQLZ=<eqlz>],[FMT=<fmt>],
   [LINECDE=<linecde>],[OMODE=<omode>],
   [TMGREF=<tmgref>],[IFTYPE=<iftype>]:[<pst>],
   [<sst>];

ENT-T1:[TID]:<ds_id>:[CTAG]::[EQLZ=<eqlz>],
   [FMT=<fmt>],[LINECDE=<linecde>],[OMODE=<omode>],
   [TMGREF=<tmgref>],[IFTYPE=<iftype>]:[<pst>],
   [<sst>];

RTRV-T1:[TID]:<ds_id>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<ds_id>:EQLZ=<eqlz>,FMT=<fmt>,LINECDE=<linecde>,
      OMODE=<omode>,[TMGREF=<tmgref>],IFTYPE=<iftype>:
      <pst>,[<sst>]"
;
```

Parameters:

ds_id Identifies the AID (for DLT) as a T1 port on an I/O Module in the switch.

Type: PORT
Range: IOM-{1-17}-PORT-{1-28}
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}
IOM-{1-17}-T3-{1-8}-PORT-{1-28}
Default value: none

ds_id Identifies the AID (for ED and RTRV output) as a T1 port on an I/O module or a timing port in the switch.

Type: PORTorBITS
Range: IOM-{1-17}-PORT-{1-28}
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}
IOM-{1-17}-T3-{1-8}-PORT-{1-28}
TMG-{A,B}
Default value: none

ds_id Identifies the AID (for ENT) as an I/O module or a T1 port on an I/O module in the switch.

Type: IOMorT3orPORT
Range: IOM-{1-17}
IOM-{1-17}-PORT-{1-28}
IOM-{1-17}-STS1-{1-8}
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}
IOM-{1-17}-T3-{1-8}
IOM-{1-17}-T3-{1-8}-PORT-{1-28}
Default value: none

ds_id Identifies the AID (for RTRV input) as an I/O module, a T1, STS1, or T3 port on an I/O module, or a timing port in the switch.

Type: IOMorT3orPORTorBITS
Range: IOM-{1-17}
IOM-{1-17}-PORT-{1-28}
IOM-{1-17}-STS1-{1-8}
IOM-{1-17}-STS1-{1-8}
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}
IOM-{1-17}-T3-{1-8}
IOM-{1-17}-T3-{1-8}-PORT-{1-28}
TMG-{A,B}
Default value: none

eqlz Identifies the attenuation distortion equalization setting to compensate for the length of a 22-gauge cable in feet. This parameter is not used when provisioning a T1 port on a T3 or STS1 I/O module.

Type: integer
Range: {0-655}
Default value: 0

fmt Identifies the DS1 digital signal framing format; a null value defaults to SF or "not applicable".

Type: enum
Range: SF = Superframe format
ESF = Extended Superframe format
ESF_NOFDL = Extended Superframe format – No Facilities Data Link
Default value: ESF

linecde Identifies the signal inserted for zero code suppression on a DS1.

Type: enum
Range: AMI = Alternate mark inversion ("bipolar")
B8ZS = Bipolar with 8-zero substitution
Default value: B8ZS

omode Identifies what will be transmitted from the DS1 output port when out of service.

Type: enum
Range: NORM = Normal (cross-connected data if mapped, idle signal as specified by the IDLE keyword if not mapped)
AIS = Alarm Indication Signal
Default value: AIS

tmgref Identifies whether the TMG-A or TMG-B is to be used as the primary or secondary timing source for the system. This parameter is used only for configuring the BITS interface, and is presently not supported; leave it blank.

Type: enum
Range: PRI = Primary timing source
SEC = Secondary timing source
NONE = Not a timing source
Default value: NONE

iftype Identifies whether the subject T1 port affects the network or user side. This parameter presently supports only the value "NETWORK"; leave it blank.

Type: enum
Range: NETWORK = network side
USER = user side
Default value: NETWORK

pst Identifies the primary state of the port. The value indicates the desired state of the port. A null value means no change to the current value.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: IS

sst Identifies the secondary state of the port. The value indicates the desired secondary state of the port. A null value means no change to the current value. This parameter is not supported presently; leave it blank.

Type: enum
Range: ACT = Active
AINS = Automatic, In-service
FAF = Facilities Failure
FLT = Faulted
INIT = Initializing
LPBK = Loopback
MEA = Mismatch of Equipment and Attributes
MON = Monitor
NBK = No Backup
PRI = Protection Release Inhibited
PSI = Protection Switch Inhibited
RWT = Remove Wait state
SGEO = Supporting Entity Outage
STBYC = Standby Cold
STBYH = Standby Hot
UAS = Unassigned
UEQ = Unequipped
WRK = Working
Default value: AINS

Input Examples:

```
DLT-T1::IOM-1-PORT-1;

ED-T1::IOM-1-PORT-1:::EQLZ=10,FMT=ESF,LINECDE=B8ZS,
   OMODE=AIS:OOS;

ENT-T1::IOM-1-PORT-1:::EQLZ=10,FMT=ESF,LINECDE=B8ZS,
   OMODE=AIS:OOS;

RTRV-T1::IOM-1-PORT-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-1-PORT-1:EQLZ=10,FMT=ESF,LINECDE=B8ZS,
      OMODE=AIS,IFTYPE=NETWORK:IS,AINS"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-T3

Commands:

DLT-T3: Delete DS3 Facility

ED-T3: Edit DS3 Facility

ENT-T3: Enter DS3 Facility

RTRV-T3: Retrieve DS3 Facility

Descriptions:

DLT-T3 lets the user disconnect a T3 port from operation.

ED-T3 lets the user edit parameters associated with a T3 port on an I/O module, or a timing port, in the switch. These parameters include equalization/build-out, framing, line code, service mode, timing reference, primary state, and secondary state.

ENT-T3 lets the user establish the parameters associated with a DS3 port on an I/O module in the switch. These parameters include equalization/build-out, framing, line code, service mode, timing reference, primary state, and secondary state. ENT-T3 is dependent on ENT-EQPT; that is, ENT-T3 will not work unless ENT-EQPT has already been issued.

RTRV-T3 lets the user retrieve parameters associated with a DS3 port. These parameters include equalization/build-out, framing, line code, service mode, timing reference, primary state, and secondary state.

Category: Facility **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-T3:[TID]:<ds_id>:[CTAG];

ED-T3:[TID]:<ds_id>:[CTAG]::[AISC=<aisc>],
   [AIST=<aist>],[FMT=<fmt>],[IDLE=<idle>],
   [LBO=<lbo>],[LINECDE=<linecde>],[MAP=<map>],
   [OMODE=<omode>],[PBIT=<pbit>],[XBIT=<xbit>],
   [XBITRCV=<xbitrcv>],[XPOL=<xpol>]:[<pst>],[<sst>];

ENT-T3:[TID]:<ds_id>:[CTAG]::[AISC=<aisc>],
   [AIST=<aist>],[FMT=<fmt>],[IDLE=<idle>],
   [LBO=<lbo>],[LINECDE=<linecde>],[MAP=<map>],
   [OMODE=<omode>],[PBIT=<pbit>],[XBIT=<xbit>],
   [XBITRCV=<xbitrcv>],[XPOL=<xpol>]:[<pst>],[<sst>];

RTRV-T3:[TID]:<ds_id>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<ds_id>:AISC=<aisc>,AIST=<aist>,FMT=<fmt>,
      IDLE=<idle>,LBO=<lbo>,LINECDE=<linecde>,
      MAP=<map>,OMODE=<omode>,PBIT=<pbit>,XBIT=<xbit>,
      XBITRCV=<xbitrcv>,XPOL=<xpol>:<pst>,[<sst>]"
;
```

Parameters:

ds_id Identifies the AID (for DLT, ED, and RTRV output) as a T3 port on a DS3 I/O Module in the switch.

Type: T3
Range: IOM-{1-17}-T3-{1-8}
Default value: none

ds_id Identifies the AID (for ENT and RTRV input) as an I/O module or a T3 port on a DS3 I/O module in the switch.

Type: IOMorT3
Range: IOM-{1-17}
IOM-{1-17}-T3-{1-8}
Default value: none

aisc Identifies the alarm indication signal cause (can be one or more values connected with a "&"). This parameter is presently not supported; leave it blank.

Type: enum
Range: LOF = Loss of frame
LOS = Loss of signal
NONE = AIS cause not identified
Default value: LOS&LOF

aist Identifies the type of alarm indication signal (AIS) to be sent on the outgoing cross-connected signal when an AIS is on the incoming signal. This parameter is presently not supported; leave it blank.

Type: enum
Range: FONES = Translate to framed all ones
NAS = North American Standard
ONES = Translate to unframed all ones
Default value: NAS

fmt Identifies the DS3 digital signal framing format.

Type: enum
Range: ASYNC = asynchronous format
CBIT = C-bit parity format
Default value: ASYNC

idle Identifies whether the T3 port is set to ON or OFF. This parameter is presently not supported; leave it blank.

Type: enum
Range: OFF
ON
Default value: OFF

lbo Identifies the line build-out (in feet); that is, the attenuation distortion equalization setting to compensate for the length of the coaxial cable connecting to the port.

Type: integer
Range: {0-450}
Default value: 0

linecde Identifies the signal inserted for zero code suppression on a DS3.

Type: enum
Range: B3ZS = Bipolar with 3-zero substitution
CCHAN = Clear channel
Default value: B3ZS

map Identifies the form of mapping for DS3 payloads in SONET add/drop applications. A null value defaults to "NA". This parameter is presently not supported; leave it blank.

Type: enum (can be one or more values connected with an "&")
Range: ASYNC = asynchronous mapping
DL = SYNTRAN datalink is transported; only applicable with SYNC map.
NA = Not applicable
SYNC = Observable SYNTRAN mapping
Default value: NA

omode Specifies what will be transmitted from the DS3 output port when out of service.

Type: enum
Range: AIS = Alarm Indication Signal
NORM = Normal (cross-connected data if mapped, idle signal as specified by the non-editable IDLE keyword if not mapped)
Default value: AIS

pbit Identifies whether the P-bits are corrected on output. This parameter is presently not supported; leave it blank.

Type: enum
Range: OFF = P-bits are not changed (transparent)
ON = P-bits are altered to correct parity
Default value: OFF

xbit Identifies how X-bits are handled for this particular channel. This parameter is presently not supported; leave it blank.

Type: enum
Range: PASS = Pass X-bits with no modification (default)
XLAT = Translate X-bits to match terminating equipment.
Default value: PASS

xbitrcv Identifies the usage of the incoming X-bits.

Type: enum
Range: ALM0 = All the X-bits equal to 0 for indicating incoming remote alarm
ALM1 = All the X-bits equal to 1 for indicating incoming remote alarm
IGNORE = Ignore the X-bits.
Default value: ALM0

xpol Identifies the value/polarity to which the outgoing X-bits are forced.

Type: enum
Range: 0 = Set X-bits to fixed zero.
1 = Set X-bits to fixed one.
ALM0 = Set X-bits to zero for indicating alarm.
ALM1 = Set X-bits to one for indicating alarm.
Default value: ALM0

pst Identifies the primary state of the port. The value indicates the desired state of the port. A null value means no change to the current value.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: null

sst Identifies the secondary state of the port. The value indicates the desired secondary state of the port. A null value means no change to the current value. This parameter is presently not supported; leave it blank.

Type: enum
Range: AINS = Automatic, in service
Default value: null

Input Examples:

```
DLT-T3::IOM-1-T3-1;

ED-T3::IOM-1-T3-1:::AISC=NONE,AIST=NAS,FMT=ASYNC,
   IDLE=OFF,LBO=0,LINECDE=B3ZS,MAP=NA,OMODE=AIS,
   PBIT=OFF,XBIT=PASS,XBITRCV=ALM0,XPOL=ALM0:OOS;

ENT-T3::IOM-1-T3-1:::AISC=NONE,AIST=NAS,FMT=ASYNC,
   IDLE=OFF,LBO=0,LINECDE=B3ZS,MAP=NA,OMODE=AIS,
   PBIT=OFF,XBIT=PASS,XBITRCV=ALM0,XPOL=ALM0:OOS;

RTRV-T3::IOM-1-T3-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-1-T3-1:AISC=NONE,AIST=NAS,FMT=ASYNC,IDLE=OFF,
      LBO=0,LINECDE=B3ZS,MAP=NA,OMODE=AIS,PBIT=OFF,
      XBIT=PASS,XBITRCV=ALM0,XPOL=ALM0:IS,AINS"
;
```

Related Commands: none

INIT-REG-T1 / RTRV-PM-T1

Commands:

INIT-REG-T1: Initialize Register DS1 Facility

RTRV-PM-T1: Retrieve Performance Monitors DS1 Facility

Descriptions:

INIT-REG-T1 instructs the switch to initialize one or more storage registers or event counters associated with specific T1 ports in the switch. In most cases, registers contain performance data.

RTRV-PM-T1 lets the user retrieve current and historical performance data for T1 ports on DS3 IOMs.

Category: Facility **Security:** NSA for INIT-REG, View for RTRV-PM

Input Formats:

```
INIT-REG-T1:[TID]:<entity_id>:[CTAG]::<montype>,
   [<monval>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

```
RTRV-PM-T1:[TID]:<pm_id>:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<aid>:MONTYPE=<montype>,MONVAL=<monval>,
      [VLDTY=<vldty>],[LOCN=<locn>],[DIRN=<dirn>],
      [TMPER=<tmper>],[MONDAT=<mondat>],
      [MONTM=<montm>]"
;
```

Parameters:

entity_id Identifies the AID (for INIT-REG) as a T1 port on a DS3 I/O module. A null value for the T1 port is equivalent to "ALL"; that is, by leaving the "PORT" field blank, registers for all T1 ports on the specified T3/STS1 port will be initialized.

Type: T3PORT
Range: IOM-{1-17}-STS1-{1-8}[-PORT-{1-28}]
IOM-{1-17}-T3-{1-8}[-PORT-{1-28}]
Default value: none

pm_id Identifies the AID (for RTRV-PM input) as a T1 port on a DS3 I/O module. A null value for the T1 port is equivalent to "ALL"; that is, by leaving the "PORT" field blank, information for all T1 ports on the specified T3/STS1 port will be returned.

Type: T3PORT
Range: IOM-{1-17}-STS1-{1-8}[-PORT-{1-28}]
IOM-{1-17}-T3-{1-8}[-PORT-{1-28}]
Default value: none

aid Identifies the AID (for RTRV-PM output) as a T1 port on a DS3 I/O module (by slot number and port number).

Range: IOM-{1-17}-STS1-{1-8}-PORT-{1-28}
IOM-{1-17}-T3-{1-8}-PORT-{1-28}

montype Identifies a type of monitored parameter for T1 ports on DS3 IOMs, as defined in ANSI T1.231-1997.

Type: enum
Range: AISS-P = Alarm Indication Signal Seconds Count – Path
ALL = All types
CSS-P = Controlled Slip Second – Path
CSS-PFE = Controlled Slip Second – Path, Far End
CV-L = Coding Violation – Line
CV-P = Coding Violation – Path
CV-PFE = Coding Violation – Path, Far End
ES-L = Errored Second – Line
ES-LFE = Errored Second – Line, Far End
ES-P = Errored Second – Path
ES-PFE = Errored Second – Path, Far End
ESA-P = Errored Second, type A – Path
ESA-PFE = Errored Second, type A – Path, Far End
ESB-P = Errored Second, type B – Path
ESB-PFE = Errored Second, type B – Path, Far End
FC = Failure Count
FC-FE = Failure Count – Far End
LOSS-L = Loss of Signal Seconds – Line
SAS-P = SEF/AIS (Severely Errored Frame / Alarm Indication Signal) Second – Path
SEFS-PFE = Severely Errored Frame Second – Path, Far End
SES-L = Severely Errored Second – Line
SES-P = Severely Errored Second – Path
SES-PFE = Severely Errored Second – Path, Far End
UAS-P = Unavailable Second – Path
UAS-PFE = Unavailable Second – Path, Far End
Default value: none

monval Identifies the monitored value as either the value to which the register identified by *montype* is to be initialized (for INIT-REG), or (for RTRV-PM output) the measured value of the monitored parameter. The value is in the form of numeric counts or rates. See ANSI T1.231-1997 for the range applicable for each *montype*. This parameter is presently unused (for INIT-REG); leave it blank.

Type: integer
Range: {0-9999}
Default value: 0

monlev Identifies (for RTRV-PM input) the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

vldty Identifies (for RTRV-PM output) the validity of the monitored interval; that is, whether the information for the specified time period was accumulated over the entire time period or some portion of it.

Type: enum
Range: ADJ = Data manually adjusted or initialized
COMPL = Data accumulated over the entire time period
LONG = Data accumulated over greater than the entire time period
NA = Data not available
PRTL = Data accumulated over a portion of the time period
Default value: none

locn Identifies the location of the storage registers or event counters identified by *montype*. A null value defaults to both “FEND” and “NEND”.

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: both FEND and NEND

dirn Identifies the direction of the data stored in statistics counters relative to the switch. A null value defaults to all applicable directions (currently only “BTH”). This parameter is presently unused; leave it blank. The switch currently returns only the value “BTH”.

Type: enum
Range: AZ = Transmit
BTH = Both directions
NA = Not applicable
RCV = Receive direction only
TDTC = Transmit direction toward customer
TDTN = Transmit direction toward network
TRMT = Transmit direction only
ZA = Receive
Default value: BTH

tmper The accumulation period for performance counters. The only values currently allowed for *tmper* are “15-MIN” and “24-HR”. A null value defaults to both applicable accumulation periods.

Type: enum
Range: {1}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)
Default value: both 15-MIN and 24-HR

mondat Identifies the monitored date. The value indicates the beginning date for the performance-monitoring or storage register period defined by *tmper*. The format is MM-DD. This parameter is not supported presently; leave it blank.

Type: enum
Range: {1-12}-{1-31}
Default value: current date

montm Identifies the monitored time. The value indicates the beginning time of day for the performance-monitoring or storage register period defined by *tmper*. The format is HH-MM. This parameter is not supported presently; leave it blank.

Type: enum
Range: {0-23}-{0-59}
Default value: current time

Input Examples:

```
INIT-REG-T1::IOM-1-T3-1-PORT-1:::ALL,,NEND,,24-HR;
RTRV-PM-T1::IOM-1-T3-1-PORT-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-1-T3-1-PORT-1:MONTYPE=ALL,MONVAL=100,
      VLDTY=COMPL,LOCN=NEND,DIRN=BTH,TMPER=15-MIN,
      MONDAT=05-15,MONTM=14-37"
;
```

Related Commands: none

INIT-REG-T3 / RTRV-PM-T3

Commands:

INIT-REG-T3: Initialize Register DS3 Facility

RTRV-PM-T3: Retrieve Performance Monitors DS3 Facility

Descriptions:

INIT-REG-T3 instructs the switch to initialize one or more storage registers or event counters associated with specific T3 ports in the switch. In most cases, registers contain performance data.

RTRV-PM-T3 lets the user retrieve current and historical performance data for DS3 ports.

Category: Facility **Security:** NSA for INIT-REG, View for RTRV-PM

Input Formats:

```
INIT-REG-T3:[TID]:<entity_id>:[CTAG]::<montype>,
   [<monval>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
RTRV-PM-T3:[TID]:<pm_id>:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<aid>:MONTYPE=<montype>,MONVAL=<monval>,
      [VLDTY=<vldty>],[LOCN=<locn>],[DIRN=<dirn>],
      [TMPER=<tmper>],[MONDAT=<mondat>],
      [MONTM=<montm>]"
;
```

Parameters:

entity_id Identifies the AID (for INIT-REG) either as a DS3 I/O module (by slot number), or as a T3 port on a DS3 I/O module (by slot number and port number).

Type: IOMorT3
Range: IOM-{1-17}
IOM-{1-17}- T3-{1-8}
Default value: none

pm_id Identifies the AID (for RTRV-PM input) either as a DS3 I/O module (by slot number), or as a T3 port on a DS3 I/O module (by slot number and port number).

Type: IOMorT3
Range: IOM-{1-17}
IOM-{1-17}- T3-{1-8}
Default value: none

aid Identifies the AID (for RTRV-PM output) either as a DS3 I/O module (by slot number), or as a T3 port on a DS3 I/O module (by slot number and port number).

Range: IOM-{1-17}
IOM-{1-17}-T3-{1-8}

montype Identifies a type of monitored parameter, as defined in ANSI T1.231-1997.

Type: enum

Range: AISS-P = Alarm Indication Signal Seconds – Path
ALL = All types
CVCP-P = Coding Violation – Path, DS3 CP-bit parity
CVCP-PFE = Coding Violation – Path, Far End, DS3 CP-bit parity
CVL = Coding Violation – Line
CVP-P = Coding Violation – Path, P-bit parity
ESA-L = Errored Second , type A – Line
ESACP-P = Errored Second , type A – Path, DS3 CP-bit parity
ESACP-PFE = Errored Second , type A – Path, DS3 CP-bit parity, Far End
ESAP-P = Errored Second , type A – Path, DS3 P-bit parity
ESB-L = Errored Second , type B – Line
ESBCP-P = Errored Second , type B – Path, DS3 CP-bit parity
ESBCP-PFE = Errored Second , type B – Path, DS3 CP-bit parity, Far End
ESBP-P = Errored Second , type B – Path, DS3 P-bit parity
ESCP-P = Errored Second – Path, DS3 CP-bit parity
ESCP-PFE = Errored Second – Path, DS3 CP-bit parity, Far End
ESL = Errored Second – Line
ESP-P = Errored Second – Path, P-bit parity
FCCP-PFE = Failure Count – Path, DS3 CP-bit parity, Far End
FCP = Failure Count – Path, Near End
LOSS-L = Loss of Signal Seconds count – Line
SAS-P = SEF/AIS Second count
SASCP-P = SEF/AIS Second – CP-bit parity
SES-P = Severely Errored Second – Path
SESCP-P = Severely Errored Second – Path, DS3 CP-bit parity
SESCP-PFE = Severely Errored Second – Path, DS3 CP-bit parity, Far End
SESL = Severely Errored Second – Line
UASCP-P = Unavailable Second – Path, DS3 CP-bit parity
UASCP-PFE = Unavailable Second – Path, DS3 CP-bit parity, Far End
UASP-P = Unavailable Second – Path, P-bit parity

Default value: none

monval Identifies the monitored value as either the value to which the register identified by *montype* is to be initialized (for INIT-REG), or (for RTRV-PM output) the measured value of the monitored parameter. The value is in the form of numeric counts or rates. See ANSI T1.231-1997 for the range applicable for each *montype*. This parameter is presently unused (for INIT-REG); leave it blank.

Type: integer
Range: {0-9999}
Default value: 0

monlev Identifies (for RTRV-PM input) the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

vldty Identifies (for RTRV-PM output) the validity of the monitored interval; that is, whether the information for the specified time period was accumulated over the entire time period or some portion of it.

Type: enum
Range: ADJ = Data manually adjusted or initialized
COMPL = Data accumulated over the entire time period
LONG = Data accumulated over greater than the entire time period
NA = Data not available
PRTL = Data accumulated over a portion of the time period
Default value: none

locn Identifies the location of the storage registers or event counters identified by *montype*. A null value defaults to both “FEND” and “NEND”. The value “FEND” applies only to T3 ports with C-bit parity format for DS3 digital signal framing (The value of *fmt* in ENT-T3 is “CBIT”.).

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: both FEND and NEND

dirn Identifies the direction of the data stored in statistics counters relative to the switch. A null value defaults to all applicable directions (currently only "BTH"). This parameter is presently unused; leave it blank. The switch currently returns only the value "BTH".

Type: enum
Range: AZ = Transmit
BTH = Both directions
NA = Not applicable
RCV = Receive direction only
TDTC = Transmit direction toward customer
TDTN = Transmit direction toward network
TRMT = Transmit direction only
ZA = Receive
Default value: BTH

tmper The accumulation period for performance counters. The only values currently allowed for *tmper* are "15-MIN" and "24-HR". A null value defaults to both applicable accumulation periods.

Type: enum
Range: {1}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)
Default value: both 15-MIN and 24-HR

mondat Identifies the monitored date. The value indicates the beginning date for the performance-monitoring or storage register period defined by *tmper*. The format is MM-DD. This parameter is not supported presently; leave it blank.

Type: enum
Range: {1-12}-{1-31}
Default value: current date

montm Identifies the monitored time. The value indicates the beginning time of day for the performance-monitoring or storage register period defined by *tmper*. The format is HH-MM. This parameter is not supported presently; leave it blank.

Type: enum
Range: {0-23}-{0-59}
Default value: current time

Input Examples:

```
INIT-REG-T3::IOM-1-T3-1::ALL,,NEND,,24-HR;
RTRV-PM-T3::IOM-1-T3-1-PORT-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-1-T3-1:MONTYPE=ALL,MONVAL=100,VLDTY=COMPL,
      LOCN=NEND,DIRN=BTH,TMPER=15-MIN,MONDAT=05-15,
      MONTM=14-37"
;
```

Related Commands: none

OPR/RLS-LPBK-ENET

Commands:

OPR-LPBK-ENET: Operate Loopback ENET Facility

RLS-LPBK-ENET: Release Loopback ENET Facility

Descriptions:

OPR-LPBK-ENET lets the user operate a loopback on a specified (out of service) Ethernet port associated with a test access session in the switch. The loop may be accomplished at either the near or the far end, or on the line. The switch issues an error response if not in a state that allows a loopback to occur. A switch that has a loopback in effect includes the appropriate condition type information in response to a RTRV-COND message.

RLS-LPBK-ENET lets the user release a loopback on a specified Ethernet port associated with a test access session in the switch. The loop may be released from either the near or the far end. The switch issues an error response if not in a state that allows a loopback to occur. A switch that has a loopback in effect includes the appropriate condition type information in response to a RTRV COND message.

Category: Facility **Security:** SA for both commands

Input Formats:

```
OPR-LPBK-ENET:[TID]:<enetId>:[CTAG]::[<locn>],
   [<orgn>],[<intext>],[<lpbktype>];
```

```
RLS-LPBK-ENET:[TID]:<enetId>:[CTAG]::[<locn>],
   [<orgn>],[<intext>],[<lpbktype>];
```

Output Format: none

Parameters:

enetId Identifies the AID as the Ethernet port on an I/O module in the switch on which the loopback is performed or released.

Type: ENET
Range: IOM-{8,10}-ENET-{1-4}
Default value: none

locn Identifies the location where the loopback occurs. The value "FEND" is not supported.

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: NEND

orgn Identifies the office originating the looped-back signal. A null value indicates that this parameter is not applicable. This parameter is not supported presently; leave it blank.

Type: enum
Range: FEND = Far end office
NEND = Near end office
BOTH = Both offices
Default value: null

intext Directs the switch to provide or release a loopback that is with/without the benefit of signal processing, such as reshaping, recoding, scrambling, retiming, etc. A null value indicates that this parameter is not applicable. This parameter is not supported presently; leave it blank.

Type: enum
Range: EXT = External
INT = Internal
Default value: null

lpbktype Identifies the type of loopback signal to be operated. Depending on the transmission system, various parts of a signal may be looped back. For example, the LINE loopback may very well be a full metallic loopback, while a PAYLOAD loopback may result in a signal that has been recoded with new and different header and/or CRC information. A null value indicates that this parameter is not applicable. This parameter is presently not supported; leave it blank.

Type: enum
Range: LINE = 44.736 Mbps loopback signal
PAYLOAD = 44.512 Mbps loopback signal
Default value: null

Input Examples:

```
OPR-LPBK-ENET::IOM-8-ENET-1;
RLS-LPBK-ENET::IOM-8-ENET-1;
```

Related Commands: none

RTRV-INFO-STS1

Command:

RTRV-INFO-STS1: Retrieve Information STS1 Facility

Description:

RTRV-INFO-STS1 lets the user retrieve information about STS1 ports. Retrieved information includes the path trace message, the content of the STS SPE, the STS Path RDI, and the Signal Label portion of the V5 byte.

Category: Facility **Security:** View

Input Format:

```
RTRV-INFO-STS1:[TID]:<sts_id>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<sts_id>:STSTRACE=<ststrace>,
      STSPAYLOAD=<stspayload>,PATHRDI=<pathrdi>,
      VTPAYLOAD=<vtpayload>"
;
```

Parameters:

sts_id Identifies the AID as an I/O module or an STS1 port on an I/O module in the switch.

Type: IOMorSTS1
Range: IOM-{1-17}
IOM-{1-17}-STS1-{1-8}
Default value: none

ststrace Identifies the path trace message to be received. Trace byte (J1) continuously transmits a 64-byte, fixed length ASCII string (the last two bytes of which are a CR and an LF), one byte at a time. A null value causes the switch to transmit 62 NULL chars (Hex 00), a CR, and an LF.

Type: string
Range: up to 62 ASCII characters
Default value: none

stspayload Identifies the STS Path Signal Label byte (C2), as defined in GR-253, to indicate the content of the STS SPE (Synchronous Payload Envelope).

Type: integer
Range: three digits representing a two-character hex code
Default value: none

pathrdi Identifies the STS Path RDI (Remote Defect Indicator) signal portion of the STS Path Status byte (G1), as defined in GR-253, to convey the Path terminating status and performance back to the originating STS PTE (Path Terminating Equipment).

Type: integer
Range: four digits representing a three-character hex code
Default value: none

vtpayload Identifies the Signal Label portion of the VT Path Overhead byte (V5) for the 28 possible virtual tributaries

Type: string
Range: up to 28 digits separated by commas
Default value: none

Input Example:

```
RTRV-INFO-STS1::IOM-1-STS1-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-1-STS1-1:STSTRACE=TRACE1,STSPAYLOAD=123,
      PATHRDI=1234,VTPAYLOAD=2,2,2,2,2,2,2,2,2,2,2,2,
      2,2,2,2,2,2,2,2,2,2,2,2,2,2"
;
```

Related Commands: none

RTRV-PM-C

Command:

RTRV-PM-C: Retrieve Performance Monitoring Compressed

Description:

RTRV-PM-C lets the user retrieve current and historical performance data for all ports on an IOM in a compressed format; that is, it returns performance data only for those montypes that exceed their specified thresholds, regardless of the type of port.

Category: Facility **Security:** View

Input Format:

```
RTRV-PM-C:[TID]:<pm_id>:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<pm_id>:<montype>,<monval>,[<vldty>],[<locn>],
      [<dirn>],[<tmper>],[<mondat>],[<montm>]"
;
```

Parameters:

pm_id Identifies the AID as a DS3 I/O module by slot number.

Type: IOMODULE
Range: IOM-{1-17}
Default value: none

montype Identifies the registers (for a type of monitored parameter) to initialize or from which to retrieve performance data. "ALL" is the only valid input value.

Type: enum

Range: AISS-P = Alarm Indication Signal Seconds – Path
ALL = All types
CVCP-P = Coding Violation – Path, DS3 CP-bit parity
CVCP-PFE = Coding Violation – Path, Far End, DS3 CP-bit parity
CVL = Coding Violation – Line
CVP-P = Coding Violation – Path, P-bit parity
ESA-L = Errored Second , type A – Line
ESACP-P = Errored Second , type A – Path, DS3 CP-bit parity
ESACP-PFE = Errored Second , type A – Path, DS3 CP-bit parity, Far End
ESAP-P = Errored Second , type A – Path, DS3 P-bit parity
ESB-L = Errored Second , type B – Line
ESBCP-P = Errored Second , type B – Path, DS3 CP-bit parity
ESBCP-PFE = Errored Second , type B – Path, DS3 CP-bit parity, Far End
ESBP-P = Errored Second , type B – Path, DS3 P-bit parity
ESCP-P = Errored Second – Path, DS3 CP-bit parity
ESCP-PFE = Errored Second – Path, DS3 CP-bit parity, Far End
ESL = Errored Second – Line
ESP-P = Errored Second – Path, P-bit parity
FCCP-PFE = Failure Count – Path, DS3 CP-bit parity, Far End
FCP = Failure Count – Path, Near End
LOSS-L = Loss of Signal Seconds count – Line
SAS-P = SEF/AIS Second count
SASCP-P = SEF/AIS Second – CP-bit parity
SASCP-PFE = Far End SEF/AIS Second – CP-bit parity
SES-P = Severely Errored Second – Path
SESCP-P = Severely Errored Second – Path, DS3 CP-bit parity
SESCP-PFE = Severely Errored Second – Path, DS3 CP-bit parity, Far End
SESL = Severely Errored Second – Line
UASCP-P = Unavailable Second – Path, DS3 CP-bit parity
UASCP-PFE = Unavailable Second – Path, DS3 CP-bit parity, Far End
UASP-P = Unavailable Second – Path, P-bit parity

Default value: ALL

monlev Identifies the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

monval Identifies (in output) the measured value of the monitored parameter. The value is in the form of numeric counts or rates.

Type: integer
Range: {1-9999}
Default value: none

vldty Identifies (in output) the validity of the monitored interval.

Type: enum
Range: ADJ = Data manually adjusted or initialized
COMPL = Data accumulated over the entire time period
LONG = Data accumulated over greater than the entire time period
NA = Data not available
PRTL = Data accumulated over a portion of the time period
Default value: none

locn Identifies the location of the storage registers or event counters identified by *montype*.

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters relative to the switch. The switch currently returns only the value “BTH”.

Type: enum
Range: AZ = Transmit
BTH = Both directions
NA = Not applicable
RCV = Receive direction only
TDTC = Transmit direction toward customer
TDTN = Transmit direction toward network
TRMT = Transmit direction only
ZA = Receive
Default value: BTH

tmper The accumulation period for performance counters. The only values currently allowed for *tmper* are “15-MIN” and “24-HR”.

Type: enum
Range: {1}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)
NA = Not applicable (no value)
Default value: 15-MIN

mondat Identifies the monitored date. The value indicates the beginning date for the performance-monitoring or storage register period defined by *tmper*. The format is MM-DD.

Type: enum
Range: {1-12}-{1-31}
Default value: current date

montm Identifies the monitored time. The value indicates the beginning time of day for the performance-monitoring or storage register period defined by *tmper*. The format is HH-MM.

Type: enum
Range: {0-23}-{0-59}
Default value: current time

Input Example:

```
RTRV-PM-C::IOM-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-1-T3-1:ALL,100,PRTL,FEND,RCV,24-HR,05-15,
      08-45"
;
```

Related Commands: None

RTRV/SET-TH-T1

Commands:

RTRV-TH-T1: Retrieve Threshold DS1 Facility

SET-TH-T1: Set Threshold DS1 Facility

Descriptions:

RTRV-TH-T1 lets the user retrieve the current threshold level of one or more monitored performance counts associated with specific T1 ports in the switch. The violation of these thresholds will trigger a condition. Provision thresholds with SET-TH.

SET-TH-T1 lets the user set the performance monitoring parameter threshold levels for T1 ports on DS3 IOMs. This command cannot be used to turn off threshold crossing alerts; i.e., the threshold level cannot be set to some "non-applicable" value. The switch sends a REPT ALM or REPT EVT message when thresholds are exceeded, depending on the notification code associated with the threshold condition. Threshold setting for multiple monitored parameters requires multiple invocations of this command – wildcarding is not permitted.

Category: Facility **Security:** NSA for SET-TH, View for RTRV-TH

Input Formats:

```
RTRV-TH-T1:[TID]:<pm_id>:[CTAG]::[<montype>],[<locn>],
   [<tmper>];
SET-TH-T1:[TID]:<pm_id>:[CTAG]::<montype>,<thlev>,
   [<locn>],[<dirn>],[<tmper>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<pm_id>,[<entitytype>]:<montype>,[<locn>],<thlev>,
      [<tmper>]"
;
```

Parameters:

pm_id Identifies the AID (for SET and RTRV output) as a T1 port on an I/O module. This AID is currently restricted to T1 ports on DS3 IOMs.

Type: T3PORT
Range: IOM-{1-17}-STS1-{1-8}-PORT-{1-28}
IOM-{1-17}-T3-{1-8}-PORT-{1-28}
Default value: none

pm_id Identifies the AID (for RTRV input) as either a T1, T3, or STS1 port on an I/O module.

Type: T3orPORT
Range: IOM-{1-17}-STS1-{1-8}[-PORT-{1-28}]
IOM-{1-17}-T3-{1-8}[-PORT-{1-28}]
Default value: none

entitytype Identifies (for RTRV-TH output) the type of facility, link, or other addressable entity targeted by the message.

Type: enum
Range: ALL = Keyword for all entities in range.
COM = Common – designates the switch
EQPT = Equipment
LINE = Subscriber line
LINK = Link (except OS/NE link)
PLK = Packet link
SLK = Signaling link
T0 = DS0
T1 = DS1
T3 = DS3
TRK = Trunk
Default value: not applicable for output

montype Identifies a type of monitored parameter for T1 ports on DS3 IOMs, as defined in ANSI T1.231-1997. A null value (in RTRV input) is equivalent to "ALL".

Type: enum

Range: AISS-P = Alarm Indication Signal Seconds Count – Path
ALL = All types (RTRV input only – not valid for SET)
CSS-P = Controlled Slip Second – Path
CSS-PFE = Controlled Slip Second – Path, Far End
CV-L = Coding Violation – Line
CV-P = Coding Violation – Path
CV-PFE = Coding Violation – Path, Far End
ES-L = Errored Second – Line
ES-LFE = Errored Second – Line, Far End
ES-P = Errored Second – Path
ES-PFE = Errored Second – Path, Far End
ESA-P = Errored Second, type A – Path
ESA-PFE = Errored Second, type A – Path, Far End
ESB-P = Errored Second, type B – Path
ESB-PFE = Errored Second, type B – Path, Far End
FC = Failure Count
FC-FE = Failure Count – Far End
LOSS-L = Loss of Signal Seconds – Line
SAS-P = SEF/AIS (Severely Errored Frame / Alarm Indication Signal) Second – Path
SEFS-PFE = Severely Errored Frame Second – Path, Far End
SES-L = Severely Errored Second – Line
SES-P = Severely Errored Second – Path
SES-PFE = Severely Errored Second – Path, Far End
UAS-P = Unavailable Second – Path
UAS-PFE = Unavailable Second – Path, Far End

Default value: ALL

thlev Identifies (for SET-TH and RTRV-TH output) the current threshold level for the monitored parameter identified by *montype*. The value for *thlev* (in SET-TH) must be within the range specified for the affected *montype* in Table 17 of ANSI T1.231-1997 (extracted below).

Type: integer
Range:

Parameter	Threshold range	
	15 minute	Day
CV	1-16383	1-1048575
CSS, ES, SAS, SES, UAS	1-900	1-65535

Notes:
1. For CVs, the upper end of the range is based on a 14-bit register for the 15-minute interval and a 20-bit register for the 1-day interval.
2. The 15-minute and 1-day ranges for the CSS, ES, SAS, SES, and UAS parameters correspond to 100% and 76% of possible seconds, respectively.

Default value: none

locn Identifies the location of the storage registers or event counters to be initialized. A null value defaults to both "FEND" and "NEND".

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: both FEND and NEND

dirn Identifies the direction in which to set the threshold relative to the entity identified by the AID. A null value defaults to all applicable directions (currently only "BTH"). This parameter is not supported presently; leave it blank.

Type: enum
Range: AZ = Transmit
BTH = Both directions
NA = Not applicable
RCV = Receive direction only
TDTC = Transmit direction toward customer
TDTN = Transmit direction toward network
TRMT = Transmit direction only
ZA = Receive
Default value: BTH

tmper The accumulation period for performance counters. The only values currently allowed for *tmper* are “15-MIN” and “24-HR”. A null value defaults to both applicable accumulation periods.

Type: enum
Range: {1}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)
Default value: both 15-MIN and 24-HR

Input Examples:

```
RTRV-TH-T1::IOM-1-T3-1-PORT-1:::LOSS-L,NEND,15-MIN;
```

```
SET-TH-T1::IOM-1-T3-1-PORT-1:::LOSS-L,900,NEND,,
   15-MIN;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-1-T3-1-PORT-1,T1:LOSS-L,NEND,900,15-MIN"
;
```

Related Commands: none

RTRV/SET-TH-T3

Commands:

RTRV-TH-T3: Retrieve Threshold DS3 Facility

SET-TH-T3: Set Threshold DS3 Facility

Descriptions:

RTRV-TH-T3 lets the user retrieve the current threshold level of one or more monitored performance counts associated with specific T3 ports in the switch. The violation of these thresholds will trigger a condition. Provision thresholds with SET-TH.

SET-TH-T3 lets the user set the performance monitoring parameter threshold levels for T3 ports. This command cannot be used to turn off threshold crossing alerts; i.e., the threshold level cannot be set to some "non-applicable" value. The switch sends a REPT ALM or REPT EVT message when thresholds are exceeded, depending on the notification code associated with the threshold condition. Threshold setting for multiple monitored parameters requires multiple invocations of this command – wildcarding is not permitted.

Category: Facility **Security:** NSA for SET-TH, View for RTRV-TH

Input Formats:

```
RTRV-TH-T3:[TID]:<pm_id>:[CTAG]::[<montype>],[<locn>],
   [<tmper>];
SET-TH-T3:[TID]:<pm_id>:[CTAG]::<montype>,<thlev>,
   [<locn>],[<dirn>],[<tmper>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<pm_id>,[<entitytype>]:<montype>,[<locn>],<thlev>,
      [<tmper>]"
;
```

Parameters:

pm_id Identifies the AID (for SET and RTRV input) either as a DS3 I/O module (by slot number), or as a T3 port on a DS3 I/O module (by slot number and port number).

Type: IOMorT3
Range: IOM-{1-17}
IOM-{1-17}- T3-{1-8}
Default value: none

pm_id Identifies the AID (for RTRV output) as a T3 port on a DS3 I/O Module in the switch.

Type: T3
Range: IOM-{1-17}-T3-{1-8}
Default value: none

entitytype Identifies (for RTRV-TH output) the type of facility, link, or other addressable entity targeted by the message.

Type: enum
Range: ALL = Keyword for all entities in range.
COM = Common – designates the switch
EQPT = Equipment
LINE = Subscriber line
LINK = Link (except OS/NE link)
PLK = Packet link
SLK = Signaling link
T0 = DS0
T1 = DS3
T3 = DS3
TRK = Trunk
Default value: not applicable for output

montype Identifies a type of monitored parameter for T1 ports on DS3 IOMs, as defined in ANSI T1.231-1997. A null value (in RTRV input) is equivalent to "ALL".

Type: enum

Range: AISS-P = Alarm Indication Signal Seconds – Path
ALL = All types (RTRV input only – not valid for SET)
CVCP-P = Coding Violation – Path, DS3 CP-bit parity
CVCP-PFE = Coding Violation – Path, Far End, DS3 CP-bit parity
CVL = Coding Violation – Line
CVP-P = Coding Violation – Path, P-bit parity
ESA-L = Errored Second , type A – Line
ESACP-P = Errored Second , type A – Path, DS3 CP-bit parity
ESACP-PFE = Errored Second , type A – Path, DS3 CP-bit parity, Far End
ESAP-P = Errored Second , type A – Path, DS3 P-bit parity
ESB-L = Errored Second , type B – Line
ESBCP-P = Errored Second , type B – Path, DS3 CP-bit parity
ESBCP-PFE = Errored Second , type B – Path, DS3 CP-bit parity, Far End
ESBP-P = Errored Second , type B – Path, DS3 P-bit parity
ESCP-P = Errored Second – Path, DS3 CP-bit parity
ESCP-PFE = Errored Second – Path, DS3 CP-bit parity, Far End
ESL = Errored Second – Line
ESP-P = Errored Second – Path, P-bit parity
FCCP-PFE = Failure Count – Path, DS3 CP-bit parity, Far End
FCP = Failure Count – Path, Near End
LOSS-L = Loss of Signal Seconds count – Line
SAS-P = SEF/AIS Second count
SASCP-P = SEF/AIS Second – CP-bit parity
SES-P = Severely Errored Second – Path
SESCP-P = Severely Errored Second – Path, DS3 CP-bit parity
SESCP-PFE = Severely Errored Second – Path, DS3 CP-bit parity, Far End
SESL = Severely Errored Second – Line
UASCP-P = Unavailable Second – Path, DS3 CP-bit parity
UASCP-PFE = Unavailable Second – Path, DS3 CP-bit parity, Far End
UASP-P = Unavailable Second – Path, P-bit parity

Default value: ALL

thlev Identifies (for SET-TH and RTRV-TH output) the current threshold level for the monitored parameter identified by *montype*. The value for *thlev* (in SET-TH) must be within the range specified for the affected *montype* in Table 17 of ANSI T1.231-1997 (extracted below).

Type: integer
Range:

Parameter	Threshold range	
	15 minute	Day
CV	1-16383	1-1048575
CSS, ES, SAS, SES, UAS	1-900	1-65535

Notes:
3. For CVs, the upper end of the range is based on a 14-bit register for the 15-minute interval and a 20-bit register for the 1-day interval.
4. The 15-minute and 1-day ranges for the CSS, ES, SAS, SES, and UAS parameters correspond to 100% and 76% of possible seconds, respectively.

Default value: none

locn Identifies the location of the storage registers or event counters to be initialized. A null value defaults to both "FEND" and "NEND".

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: both FEND and NEND

dirn Identifies the direction in which to set the threshold relative to the entity identified by the AID. A null value defaults to all applicable directions (currently only "BTH"). This parameter is not supported presently; leave it blank.

Type: enum
Range: AZ = Transmit
BTH = Both directions
NA = Not applicable
RCV = Receive direction only
TDTC = Transmit direction toward customer
TDTN = Transmit direction toward network
TRMT = Transmit direction only
ZA = Receive
Default value: BTH

tmper The accumulation period for performance counters. The only values currently allowed for *tmper* are “15-MIN” and “24-HR”. A null value defaults to both applicable accumulation periods.

Type: enum
Range: {1}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)
Default value: both 15-MIN and 24-HR

Input Examples:

```
RTRV-TH-T3::IOM-1-T3-1:::LOSS-L,NEND,15-MIN;
SET-TH-T3::IOM-1-T3-1:::LOSS-L,900,NEND,,15-MIN;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-1-T3,T3:LOSS-L,NEND,900,15-MIN"
;
```

Related Commands: none

RTRV-STATS-ENET

Command:

RTRV-STATS-ENET: Retrieve Statistics ENET Facility

Description:

RTRV-STATS-ENET lets the user retrieve statistics for an Ethernet port. Use this command to retrieve the number of packets and bytes transmitted and received.

Category: Facility **Security:** View

Input Format:

```
RTRV-STATS-ENET:[TID]:<enetId>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<enetId>:[MACADDR=<macaddr>],
      [SUCCESSFUL-PKT-TX=<successfulPktTx>],
      [SUCCESSFUL-PKT-RX=<successfulPktRx>],
      [ERROR-PKT-TX=<errorPktTx>],
      [ERROR-PKT-RX=<errorPktRx>],
      [NUM-PAUSE-FRM-TX=<numPauseFrmTx>],
      [NUM-PAUSE-FRM-RX=<numPauseFrmRx>],
      [TOTAL-BYTES-TX=<totalBytesTx>],
      [TOTAL-BYTES-RX=<totalBytesRx>],
      [TOTAL-ERR-BYTES-TX=<totalErrBytesTx>],
      [TOTAL-ERR-BYTES-RX=<totalErrBytesRx>]"
;
```

Parameters:

enetId Identifies the AID (for RTRV input) as an Ethernet port on an I/O module. A null value for the second part of the AID is equivalent to "ALL"; that is, by leaving the field blank, statistics will be returned for all Ethernet ports configured on the specified I/O module.

Type: IOMorENET
Range: IOM-{8}[-ENET-{1-4}]
Default value: none

enetId Identifies the AID (for RTRV output) as an Ethernet port on an I/O Module in the switch.

Type: ENET
Range: IOM-{8,10}-ENET-{1-4}
Default value: none

macaddr Identifies the MAC (Medium Access Control) address for the Ethernet port.

Type: string
Range: six hex bytes separated by spaces
Default value: none

successfulPktTx Identifies the total number of packets successfully transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

successfulPktRx Identifies the total number of packets successfully received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

errorPktTx Identifies the total number of packets transmitted with errors.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

errorPktRx Identifies the total number of packets received with errors.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

numPauseFrmTx Identifies the total number of paused frames transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

numPauseFrmRx Identifies the total number of paused frames received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

totalBytesTx Identifies the total number of bytes transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

totalBytesRx Identifies the total number of bytes received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

totalErrBytesTx Identifies the total number of bytes transmitted with errors.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

totalErrBytesRx Identifies the total number of bytes received with errors.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

Input Example:

```
RTRV-STATS-ENET::IOM-8-ENET-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-8-ENET-1:MACADDR=0 30 fa 0 12 35,
      SUCCESSFUL-PKT-TX=0,SUCCESSFUL-PKT-RX=0,
      ERROR-PKT-TX=0,ERROR-PKT-RX=0,
      NUM-PAUSE-FRM-TX=0,NUM-PAUSE-FRM-RX=0,
      TOTAL-BYTES-TX=0,TOTAL-BYTES-RX=0,
      TOTAL-ERR-BYTES-TX=0,TOTAL-ERR-BYTES-RX=0"
;
```

Related Commands: none

DLT/ENT/RTRV-IPROUTE

Commands:

DLT-IPROUTE: Delete IPROUTE

ENT-IPROUTE: Enter IPROUTE

RTRV-IPROUTE: Retrieve IPROUTE

Descriptions:

DLT-IPROUTE lets the user delete an established route.

ENT-IPROUTE lets the user establish an IP route from a gateway on the local subnet to a specified destination network.

RTRV-IPROUTE lets the user retrieve the IP address of the gateway on the local subnet used to reach a specified destination network.

Category: Equipment **Security:** SA for all commands

Input Formats:

```
DLT-IPROUTE:[TID]:<srcid>:[CTAG];
ENT-IPROUTE:[TID]:<srcid>:[CTAG]::GATEWAY=<gateway>;
RTRV-IPROUTE:[TID]:<srcid>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<srcid>:GATEWAY=<gateway>"
;
```

Parameters:

srcid Identifies the AID as a configured route by defining the affected module, the destination IP address, and the subnet mask in CIDR (Classless Inter-Domain Routing) notation. You can add a default gateway to an SP by specifying destination IP address "0.0.0.0" with subnet mask "0" (and the mandatory subnet gateway parameter). The subnet mask must be "0" when the IP address is "0.0.0.0". You cannot use IP address "127.0.0.1" (reserved for loopback) or "255.255.255.255" (reserved for broadcast).

Type: string
Range: <spOrIom>-<destIpAddr>-<subnetMask>, where
spOrIom = IOM-{8,10} or SP
destIpAddr = {0-255}.{0-255}.{0-255}.{0-255}
subnetMask = {0-32}
Default value: none

gateway Identifies the IP address of the gateway on the local subnet used to reach the specified destination network. You cannot use IP addresses "0.0.0.0" (reserved for loopback), "127.0.0.1" (reserved for loopback), and "255.255.255.255" (reserved for broadcast).

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

Input Examples:

```
DLT-IPROUTE::IOM-10-192.168.0.1-8;
ENT-IPROUTE::IOM-10-192.168.0.1-8::GATEWAY=10.0.0.90;
RTRV-IPROUTE::IOM-10-192.168.0.1-8;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-10-192.168.0.1-8:GATEWAY=10.0.0.90"
;
```

Related Commands: none

ED/RTRV-CHASSIS-EQPT

Commands:

ED-CHASSIS-EQPT: Edit CHASSIS Equipment

RTRV-CHASSIS-EQPT: Retrieve CHASSIS Equipment

Descriptions:

ED-CHASSIS-EQPT lets the user edit the properties of a Lucent Compact Switch chassis. Use ED-CHASSIS-EQPT to set the system's CLLI code and IP addresses. The IP addresses for the element manager, craft, and signaling ports must be on different networks.

RTRV-CHASSIS-EQPT lets the user retrieve the properties of a Lucent Compact Switch chassis. Retrieved properties include the system's shelf number, gateway function, CLLI code, location, and IP addresses.

Category: Equipment **Security:** SA for ED, View for RTRV

Input Formats:

```
ED-CHASSIS-EQPT:[TID]:[<com>]:[CTAG]::
   [SHELFID=<shelfId>],[CHASSISTYPE=<chassisType>],
   [CLLI=<clli>],[LOC=<loc>],[EMIPSPA=<emIPSPA>],
   [CRAFTIPSPA=<craftIPSPA>],
   [SIGNALINGIPSPA=<signalingIPSPA>],
   [EMIPSPB=<emIPSPB>],[CRAFTIPSPB=<craftIPSPB>],
   [SIGNALINGIPSPB=<signalingIPSPB>],
   [EMIPMASK=<emIPMask>],[CRAFTIPMASK=<craftIPMask>],
   [SIGNALINGIPMASK=<signalingIPMask>],
   [SIGNALINGIPCHASSIS=<signalingIPChassis>],
   [DNSIP1=<dnsIP1>],[DNSIP2=<dnsIP2>],
   [NTPSERVIP1=<ntpservIP1>],
   [NTPSERVIP2=<ntpservIP2>],[DNSNAME=<dnsName>];

RTRV-CHASSIS-EQPT:[TID]:[<com>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<com>:SHELFID=<shelfId>,CHASSISTYPE=<chassisType>,
      [CLLI=<clli>],[LOC=<loc>],EMIPSPA=<emIPSPA>,
      CRAFTIPSPA=<craftIPSPA>,
      SIGNALINGIPSPA=<signalingIPSPA>,
      EMIPSPB=<emIPSPB>,CRAFTIPSPB=<craftIPSPB>,
      SIGNALINGIPSPB=<signalingIPSPB>,
      EMIPMASK=<emIPMask>,CRAFTIPMASK=<craftIPMask>,
      SIGNALINGIPMASK=<signalingIPMask>,
      SIGNALINGIPCHASSIS=<signalingIPChassis>,
      DEFAULTGATEWAY=<defaultGateway>,
      DNSIP1=<dnsIP1>],[DNSIP2=<dnsIP2>,
      NTPSERVIP1=<ntpservIP1>,
      NTPSERVIP2=<ntpservIP2>,DNSNAME=<dnsName>"
;
```

Parameters:

com Identifies the AID as a Lucent Compact Switch.

Type: COM
Range: COM
Default value: COM

shelfId Identifies the shelf containing the switch; the factory default “NULL” indicates "not applicable." This parameter has meaning only for installations containing more than one switch.

Type: enum
Range: 1-64
Default value: not applicable

chassisType Identifies the gateway function for the switch. The factory default is “BOTH”

Type: enum
Range: BOTH = Signaling gateway, media gateway, and media gateway controller
MG = Media gateway
MGC = Media gateway controller
MGM = Media gateway with MEGACO
SG = Signaling gateway
Default value: not applicable

clli Identifies the CLLI code for the switch. The factory default is "NULL".

Type: string
Range: up to 20 alphanumeric characters
Default value: not applicable

loc Identifies the location of the switch. The factory default is "NULL".

Type: string
Range: up to 63 alphanumeric characters
Default value: not applicable

emIPSPA Identifies the IP address of the element manager port on SP A. The factory default is "NULL".

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: not applicable

craftIPSPA Identifies the IP address of the craft port on SP A. The factory default is "NULL".

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: not applicable

signalingIPSPA Identifies the IP address of the signaling port on SP A. The factory default is "NULL".

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: not applicable

emIPSPB Identifies the IP address of the element manager port on SP B. The factory default is "NULL".

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: not applicable

craftIPSPB Identifies the IP address of the craft port on SP B. The factory default is "NULL".

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: not applicable

signalingIPSPB Identifies the IP address of the signaling port on SP B. The factory default is “NULL”.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: not applicable

emIPMask Identifies the element manager interface subnet mask. The factory default is “NULL”.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: not applicable

craftIPMask Identifies the craft interface subnet mask. The factory default is “NULL”.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: not applicable

signalingIPMask Identifies the signaling interface subnet mask. The factory default is “NULL”.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: not applicable

signalingIPChassis Identifies the signaling interface IP address, maintained regardless of the state of either the working or protection SP. The factory default is “NULL”.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: not applicable

dnsIP1 Identifies the IP address of the primary Domain Name Server. The factory default is “NULL”.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: not applicable

dnsIP2 Identifies the IP address of the secondary Domain Name Server. The factory default is “NULL”.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: not applicable

ntpservIP1 Identifies the IP address of the primary Network Time Protocol server. If neither NTP server is provisioned, the switch internal clock derives the time from either the internal UNIX clock, the BITS interface, or an IOM. The factory default is "NULL".

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: not applicable

ntpservIP2 Identifies the IP address of the secondary Network Time Protocol server. The factory default is "NULL".

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: not applicable

dnsName Identifies the domain name for the switch. The factory default is "NULL".

Type: string
Range: up to 64 alphanumeric characters
Default value: not applicable

Input Examples:

```
ED-CHASSIS-EQPT:::::SHELFID=NULL,CHASSISTYPE=BOTH,
   CLLI=NULL,LOC=NULL,EMIPSPA=0.0.0.0,
   CRAFTIPSPA=0.0.0.0,SIGNALINGIPSPA=0.0.0.0,
   EMIPSPB=0.0.0.0,CRAFTIPSPB=0.0.0.0,
   SIGNALINGIPSPB=0.0.0.0,EMIPMASK=0.0.0.0,
   CRAFTIPMASK=0.0.0.0,SIGNALINGIPMASK=0.0.0.0,
   SIGNALINGIPCHASSIS=0.0.0.0,DNSIP1=0.0.0.0,
   DNSIP2=0.0.0.0,NTPSERVIP1=0.0.0.0,
   NTPSERVIP2=0.0.0.0,DNSNAME=NULL;

RTRV-CHASSIS-EQPT;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:SHELFID=NULL,CHASSISTYPE=BOTH,CLLI=NULL,
      LOC=NULL,EMIPSPA=0.0.0.0,CRAFTIPSPA=0.0.0.0,
      SIGNALINGIPSPA=0.0.0.0,EMIPSPB=0.0.0.0,
      CRAFTIPSPB=0.0.0.0,SIGNALINGIPSPB=0.0.0.0,
      EMIPMASK=0.0.0.0,CRAFTIPMASK=0.0.0.0,
      SIGNALINGIPMASK=0.0.0.0,
      SIGNALINGIPCHASSIS=0.0.0.0,DNSIP1=0.0.0.0,
      DNSIP2=0.0.0.0,NTPSERVIP1=0.0.0.0,
      NTPSERVIP2=0.0.0.0,DNSNAME=NULL"
;
```

Related Commands:

RTRV-INFO-CHASSIS

ED/RTRV-TMGREF

Commands:

ED-TMGREF: Edit Timing Reference

RTRV-TMGREF: Retrieve Timing Reference

Descriptions:

ED-TMGREF lets the user change the port to use for the timing reference on a Lucent Compact Switch.

RTRV-TMGREF lets the user retrieve the properties associated with the timing reference source(s) on a Lucent Compact Switch.

Category: Equipment **Security:** NSA for ED, View for RTRV

Input Formats:

```
ED-TMGREF:[TID]:[<src>]:[CTAG]::<primarySrcType>;
RTRV-TMGREF:[TID]:[<src>]:[CTAG]::[<prisrc>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:<prisrc>,<ref>,<lockState>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

primarySrcType Identifies (for ED) the primary source for the timing reference. If the primary source is an IOM from one of the IOM sets in the range, the other IOM in that set is the secondary source. IOM-{1,2} are used if the timing reference is on a T1 port, and IOM-{8,10} are used if the timing reference is on an optical port. If the timing reference is from the BITS interface (TMG-E1/T1), select the primary source with the ENT-T1 command.

Type: enum
Range: IOM-{1,2}
IOM-{8,10}
TMG-E1 (not supported)
TMG-T1
Default value: none

prisrc Identifies (for RTRV) the primary source for the timing reference. If the primary source is an IOM from one of the IOM sets in the range, the other IOM in that set is the secondary source. IOM-{1,2} are used if the timing reference is on a T1 port, and IOM-{8,10} are used if the timing reference is on an optical port. If the timing reference is from the BITS interface (TMG), primary source selection is accomplished with the ENT-T1 command. A null value is equivalent to "ALL"; that is, by leaving the field blank, the properties of both the primary and secondary sources will be returned.

Type: enum
Range: IOM-{1,2}
IOM-{8,10}
TMG
Default value: none

ref Identifies the state of the timing reference source. If the timing reference is from the BITS interface (TMG), *ref* indicates whether the source is primary or secondary. If the timing reference is from an IOM, *ref* indicates whether the source is in service and active, in service and on standby, or out of service.

Type: enum
Range: ACTIVE
OOS
PRIMARY
SECONDARY
STANDBY
Default value: none

lockState Identifies whether the timing reference source is locked; that is, whether the source is enabled to provide the timing reference.

Type: enum
Range: FLT
FREERUN
HOLDOVER
IS
LOCKED
LOCKED_IOM1
LOCKED_IOM10
LOCKED_IOM2
LOCKED_IOM8
LOCKED_TMGA
LOCKED_TMGB
OOS
UNLOCKED
Default value: none

Input Examples:

```
ED-TMGREF:::::IOM-1;

RTRV-TMGREF;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:TMG-A,PRIMARY,IS"
   "COM:TMG-B,SECONDARY,OOS"
   "COM:SP-A-TMGMODULE,OOS,LOCKED_TMGA"
   "COM:SP-B-TMGMODULE,ACTIVE,LOCKED_TMGA"
;
```

Related Commands: none

RTRV-INFO-CHASSIS

Command:

RTRV-INFO-CHASSIS: Retrieve INFO CHASSIS

Description:

RTRV-INFO-CHASSIS lets the user retrieve information about a Lucent Compact Switch chassis. Retrieved properties include the chassis' serial number, hardware version, CLEI code, network element type, number of slots in the chassis, and number of faults.

Category: Equipment **Security:** View

Input Format:

```
RTRV-INFO-CHASSIS:[TID]:[<com>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<com>:SERIALNUMBER=<serialNumber>,
      HWVERSION=<hwVersion>,CLEI=<clei>,
      NETYPE=<neType>,SLOTCOUNT=<slotCount>,
      CRITICALFAULTS=<criticalFaults>,
      MAJORFAULTS=<majorFaults>,
      MINORFAULTS=<minorFaults>,TEMPFAULT=<tempFault>,
      TEMPFAULTCOUNT=<tempFaultCount>,
      POWERA=<powerA>,POWERB=<powerB>"
;
```

Parameters:

com Identifies the AID as a Lucent Compact Switch.

Type: COM
Range: COM
Default value: COM

serialNumber Identifies the serial number for the switch.

Type: string
Range: ANSI characters
Default value: none

hwVersion Identifies the hardware version for the switch.

Type: string
Range: ANSI characters
Default value: none

clei Identifies the CLEI code for the switch.

Type: string
Range: 10 alphanumeric characters
Default value: none

neType Identifies the switch as a specific type of network element.

Type: enum
Range: ADM = Add drop multiplexer.
ADTS = Automated digital timing system.
APS = Automatic protection switching equipment.
CS = Circuit switch.
DCS = Digital cross-connect switch.
DLC = Digital loop carrier system.
EDSX = Electronic digital signal cross-connect.
EM = Environment monitors.
ISDN = Integrated services digital network switch.
LBRV = Low bit rate voice terminal.
LDS = Local digital switch.
LTE = Line terminating equipment.
MUX = Multiplexer.
PS = Packet switch.
REP = Repeater.
SCP = Service control point.
SS = Supervisory system.
STP = Signal transfer point.
TSG = Timing signal generator.
Default value: none

slotCount Identifies the number of slots in the chassis. The value is 21 for the Lucent Compact Switch.

Type: integer
Range: {1-21}
Default value: none

criticalFaults Identifies the number of critical faults in the switch.

Type: integer
Range: {1-9999}
Default value: none

majorFaults Identifies the number of major faults in the switch.

Type: integer
Range: {1-9999}
Default value: none

minorFaults Identifies the number of minor faults in the switch.

Type: integer
Range: {1-9999}
Default value: none

tempFault Indicates whether there is currently an outstanding temperature fault against the chassis.

Type: enum
Range: OKAY = no outstanding temperature fault
FAIL = outstanding temperature fault exists
Default value: none

tempFaultCount Identifies the number of temperature faults that have occurred in the switch since initialization.

Type: integer
Range: {1-9999}
Default value: none

powerA Identifies the state of power feed A.

Type: enum
Range: OKAY = power is present at power feed A
FAIL = power not present at power feed A
Default value: none

powerB Identifies the state of power feed B.

Type: enum
Range: OKAY = power is present at power feed B
FAIL = power not present at power feed B
Default value: none

Input Example:

```
RTRV-INFO-CHASSIS;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:SERIALNUMBER=0000000303400232,HWVERSION=A-7,
      CLEI= BAMFJ00DRA,NETYPE=ISDN,SLOTCOUNT=21,
      CRITICALFAULTS=0,MAJORFAULTS=0,MINORFAULTS=2,
      TEMPFAULT=OKAY,TEMPFAULTCOUNT=0,POWERA=OKAY,
      POWERB=OKAY"
;
```

Related Commands:

ED/RTRV-CHASSIS-EQPT

NOTES

ALW/INH-EX-EQPT / RTRV-EXSCHED-EQPT / SCHED-EX-EQPT

Commands:

ALW-EX-EQPT: Allow Exercise Equipment

INH-EX-EQPT: Inhibit Exercise Equipment

RTRV-EXSCHED-EQPT: Retrieve Exercise Schedule Equipment

SCHED-EX-EQPT: Schedule Exercise Equipment

Descriptions:

ALW-EX-EQPT instructs the switch to allow scheduled periodic exercises for an IOM or SP card in the switch.

INH-EX-EQPT instructs the switch to inhibit scheduled periodic exercises for an IOM or SP card in the switch.

RTRV-EXSCHED-EQPT retrieves parameters associated with scheduled periodic exercises for an IOM or SP card in the switch.

SCHED-EX-EQPT lets the user schedule periodic exercises for an IOM or SP card in the switch. When SCHED-EX-EQPT is issued against an IOM that is not provisioned, the command will return a DENY "entity does not exist". You cannot schedule periodic exercises for a protection IOM. Deleting an IOM deletes its scheduling information.

Category: Equipment **Security:** NSA for ALW/INH/SCHED, View for RTRV

Input Formats:

```
ALW-EX-EQPT:[TID]:<iomOrSp>:[CTAG];
INH-EX-EQPT:[TID]:<iomOrSp>:[CTAG];
RTRV-EXSCHED-EQPT:[TID]:[<iomOrSp>]:[CTAG];
SCHED-EX-EQPT:[TID]:<iomOrSp>:[CTAG]::::[<invl>],
   [<statm>],[<numinvl>],[<reptmode>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<iomOrSp>:<invl>,<statm>,<numinvl>,<reptmode>,
      <inhmode>"
;
```

Parameters:

iomOrSp Identifies the AID as the SP/TMG or I/O module for which to allow or inhibit scheduled periodic exercises (for ALW/INH), the module for which scheduled periodic exercises exist (for RTRV), or the module for which to schedule periodic exercises (for SCHED). A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, parameters associated with scheduled periodic exercises will be returned for all configured modules.

Type: IOMorSP
Range: IOM-{1-17}
SP-{A-B}
Default value: none

invl Identifies the interval; i.e., the frequency at which the exercise runs. The switch returns a value of "0-HR" for *invl* when you run RTRV-EXSCHED-EQPT the first time (that is, before you've ever run SCHED-EX-EQPT).

Type: enum
Range: {1-31}-DAY
{1-24}-HR
Default value: 24-HR

statm Identifies the start time; i.e., the time to begin the scheduled exercise. The format for *statm* is HOD-MOH (hour-of-day, minute-of-hour). Default is the current time of day.

Type: enum
Range: {0-23}-{0-59}
Default value: current time of day

numinvl Identifies the number of intervals; i.e., it specifies the number of times to run a particular scheduled exercise. The default value of "0" indicates that the exercise is to be stopped, or is stopped. A value of "1000" indicates that the scheduled exercise will run until *numinvl* is changed.

Type: integer
Range: {0-1000}
Default value: 0

reptmode Identifies the report mode, which indicates how to report the results of an executed scheduled event.

Type: enum
Range: ALL = Report results of all exercises
FAIL = Report results of failed exercises
NULL = On input, defaults to FAIL
Default value: FAIL

inhmode Identifies (in RTRV output) whether periodic exercises are currently allowed or inhibited on the IOM.

Type: enum
Range: ALW = periodic exercises are allowed
INH = periodic exercises are inhibited
Default value: none

Input Examples:

```
ALW-EX-EQPT::IOM-4;

INH-EX-EQPT::IOM-4;

RTRV-EXSCHED-EQPT::IOM-4;

SCHED-EX-EQPT::IOM-4:::,2-0,1000;
```

The above example schedules an IOM protection switch once a day at 2 AM until the schedule is changed.

```
SCHED-EX-EQPT::SP-A:::7-DAY,4-30,8;
```

The above example schedules an SP protection switch once a week for eight weeks. An SP switch includes a SF protection switch.

```
SCHED-EX-EQPT::IOM-41;
```

The above example turns off a protection exercise, as *numinvl* is zero.

Output Example:

```
   lucent 2004-04-08 14:37:49
M  0 COMPLD
   "IOM-1:24-HR,2-0,1000,FAIL,ALW"
;
```

Related Commands: none

ALW/INH-SWTOPROTN-EQPT / SW-TOPROTN-EQPT

Commands:

ALW-SWTOPROTN-EQPT: Allow Switch To Protection Equipment

INH-SWTOPROTN-EQPT: Inhibit Switch To Protection Equipment

SW-TOPROTN-EQPT: Switch To Protection Equipment

Descriptions:

ALW-SWTOPROTN-EQPT instructs the switch to allow automatic or manual switching to protection of a previously-inhibited I/O Module. ALW-SWTOPROTN-EQPT applies only to I/O Modules configured as primary (working, protected). The AID parameter specifies the working I/O Module being allowed. This function is sometimes called release lockon or release lockout.

INH-SWTOPROTN-EQPT instructs the switch to inhibit automatic or manual switching to protection of an I/O Module. INH-SWTOPROTN-EQPT applies only to I/O Modules configured as primary. The AID parameter specifies the working I/O Module being inhibited. This function is sometimes called release lockon or release lockout.

SW-TOPROTN-EQPT instructs the switch to perform a protection switch; i.e., to switch the traffic from a specified working module to the protection module. SW-TOPROTN-EQPT cannot be issued to a module for which an INH-SWTOPROTN-EQPT command has been issued, unless an ALW-SWTOPROTN-EQPT command is issued first.

Category: Equipment **Security:** SA for all commands

Input Formats:

```
ALW-SWTOPROTN-EQPT:[TID]:<sw_id>:[CTAG];
INH-SWTOPROTN-EQPT:[TID]:<sw_id>:[CTAG]::[<dirn>];
SW-TOPROTN-EQPT:[TID]:<iomOrSp>:[CTAG]::[<mode>],
   [<protid>],[<dirn>];
```

Output Formats: none

Parameters:

sw_id Identifies the AID (for ALW/INH) as an I/O module in the switch.

Type: IOMODULE
Range: IOM-{1-17}
Default value: none

iomOrSp Identifies the AID (for SW-TOPROTN-EQPT) as an SP/TMG or I/O module in the switch.

Type: IOMorSP
Range: IOM-{1-17}
SP-{A-B}
Default value: none

mode Identifies how the module specified by the AID will be removed from service. This parameter is not supported presently; leave it blank.

Type: string
Range: ASCII characters
Default value: none

protid Identifies the protection unit to be switched when there is more than one protection unit. This parameter is not supported, as there is only one protection unit; leave it blank.

Type: string
Range: ASCII characters
Default value: none

dirn The direction relative to the I/O module in the switch to which the command pertains. This parameter is not supported; leave it blank.

Type: enum
Range: AZ = Transmit
BTH = Both directions
NA = Not applicable
RCV = Receive direction only
TDTC = Transmit direction toward customer
TDTN = Transmit direction toward network
TRMT = Transmit direction only
ZA = Receive
Default value: NA

Input Examples:

```
ALW-SWTOPROTN-EQPT::IOM-4;
INH-SWTOPROTN-EQPT::IOM-4;
SW-TOPROTN-EQPT::IOM-4;
```

Related Commands:

ALW/INH-SWTOWKG-EQPT SW-TOWKG-EQPT

ALW/INH-SWTOWKG-EQPT / SW-TOWKG-EQPT

Commands:

ALW-SWTOWKG-EQPT: Allow Switch To Working Equipment

INH-SWTOWKG-EQPT: Inhibit Switch To Working Equipment

SW-TOWKG-EQPT: Switch To Working Equipment

Descriptions:

ALW-SWTOWKG-EQPT instructs the switch to allow automatic or manual switching to working of a previously-inhibited I/O Module.

INH-SWTOWKG-EQPT instructs the switch to inhibit automatic or manual switching back to working of an I/O Module.

SW-TOWKG-EQPT instructs the switch to switch a protected working unit back to working; i.e., to switch traffic from the protection module back to a specified working module. SW-TOWKG-EQPT cannot be issued to a module for which an INH-SWTOWKG-EQPT command has been issued, unless an ALW-SWTOWKG-EQPT command is issued first.

Category: Equipment **Security:** SA for all commands

Input Formats:

```
ALW-SWTOWKG-EQPT:[TID]:<src>:[CTAG];
INH-SWTOWKG-EQPT:[TID]:<src>:[CTAG]::[<dirn>];
SW-TOWKG-EQPT:[TID]:<sw_id>:[CTAG]::[<mode>],[<dirn>];
```

Output Formats: none

Parameters:

src Identifies the AID (for ALW/INH) as an I/O module in the switch.

Type: IOMODULE
Range: IOM-{1-17}
Default value: none

sw_id Identifies the AID (for SW-TOWKG-EQPT) as an SP/TMG or I/O module in the switch.

Type: IOMorSP
Range: IOM-{1-17}
SP-{A-B}
Default value: none

mode Identifies how the module specified by the AID will be restored to service. This parameter is not supported presently; leave it blank.

Type: string
Range: ASCII characters
Default value: none

dirn The direction relative to the I/O module in the switch to which the command pertains. This parameter is not supported; leave it blank.

Type: enum
Range: AZ = Transmit
BTH = Both directions
NA = Not applicable
RCV = Receive direction only
TDTC = Transmit direction toward customer
TDTN = Transmit direction toward network
TRMT = Transmit direction only
ZA = Receive
Default value: NA

Input Examples:

```
ALW-SWTOWKG-EQPT::IOM-4;
INH-SWTOWKG-EQPT::IOM-4;
SW-TOWKG-EQPT::IOM-4;
```

Input Example:

```
ALW-SWTOWKG-EQPT::IOM-4;
```

Related Commands:

```
ALW/INH-SWTOPROT-EQPT     SW-TOPROTN-EQPT
```

CPY-MEM

Command:

CPY-MEM: Copy Memory

Description:

CPY-MEM instructs the switch to copy data from a specified memory storage device (internal or external) to another. This command is used to upgrade the firmware on I/O and System Processor Modules.

Category: Equipment **Security:** SW

Input Format:

```
CPY-MEM:[TID]:<src>:[CTAG];
```

Output Format: none

Parameters:

src Identifies the AID as an SP/TMG or I/O module in the switch.

Type: IOMorSP
Range: IOM-{1-17}
SP-{A-B}
Default value: none

Input Example:

```
CPY-MEM::IOM-4;
```

Related Commands: None

DLT/ED/ENT/RTRV-EQPT

Commands:

DLT-EQPT: Delete Equipment

ED-EQPT: Edit Equipment

ENT-EQPT: Enter Equipment

RTRV-EQPT: Retrieve Equipment

Descriptions:

DLT-EQPT lets the user disconnect an I/O Module; that is, it allows removing an IOM from the recognized system configuration.

ED-EQPT lets the user edit the properties of the switch module. Use ED-EQPT to change a module's type, redundancy, memory and processor utilization thresholds, software version, and desired state.

ENT-EQPT lets the user initialize the properties of an I/O Module. Use ENT-EQPT to set a module's redundancy, memory and processor utilization thresholds, software version, and desired state.

RTRV-EQPT lets the user retrieve the properties of the switch module. Retrieved properties include the module's type, redundancy, memory and processor utilization thresholds, software version, and primary and secondary states.

Category: Equipment **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-EQPT:[TID]:<ioModule>:[CTAG];

ED-EQPT:[TID]:<iomOrSp>:[CTAG]::
   [IOMODULETYPE=<ioModuleType>],[REDUNDANCY=<rn>],
   [SPMEMTHRESHOLD=<spMemThreshold>],
   [SPNVMEMTHRESHOLD=<spNVMemThreshold>],
   [SPBUSYTHRESHOLD=<spBusyThreshold>],
   [SWVERSION=<swVersion>]:[<pst>];

ENT-EQPT:[TID]:<ioModule>:[CTAG]::<ioModuleType>,<rn>,
   <spMemThreshold>,<spNVMemThreshold>,
   <spBusyThreshold>,<swVersion>:<pst>;

RTRV-EQPT:[TID]:[<iomOrSp>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<iomOrSp>::[<moduleType>],[<rn>],<spMemThreshold>,
      <spNVMemThreshold>,<spBusyThreshold>,
      [<swVersion>]:<primaryState>,[<secondaryState>]"
;
```

Parameters:

ioModule Identifies the AID (for DLT and ENT) as an I/O module in the switch.

Type: IOMODULE
Range: IOM-{1-17}
Default value: none

iomOrSp Identifies the AID (for ED and RTRV) as an SP/TMG or I/O module in the switch.

Type: IOMorSP
Range: IOM-{1-17}
SP-{A-B}
Default value: none

ioModuleType Identifies (for ED and ENT) the type of I/O module by its CLEI code.

Type: string
Range: 10 alphanumeric characters
Default value: none

moduleType Identifies (for RTRV output) the type of module by its CLEI code.

Type: string
Range: 10 alphanumeric characters
Default value: none

rn Identifies the redundancy of the module.

Type: enum
Range: PRI = Primary unit of a pair of units. This is the protected unit.
SEC = Secondary unit in a pair of units. This is the protecting unit.
SX = This is a simplex entity.
Default value: none

spMemThreshold Identifies the memory utilization threshold percentage.

Type: integer
Range: {0-100}
Default value: none

spNVMemThreshold Identifies the disk space utilization threshold percentage.

Type: integer
Range: {0-100}
Default value: none

spBusyThreshold Identifies the CPU utilization threshold percentage.

Type: integer
Range: {0-100}
Default value: none

swVersion Identifies the software version for the IOM.

Type: string
Range: ASCII characters, typically four integers separated by periods
Default value: none

pst Identifies (for ED and ENT) the primary state of the IOM. The value indicates the desired state of the IOM.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: none

primaryState Identifies (for RTRV output) the primary state of the module. Although this parameter is a string, its values are restricted to IS (In-Service) and OOS (Out-Of-Service), with OOS having possible qualifiers of AU (Autonomous) and MA (Management).

Type: string
Range: alphanumeric characters
Default value: none

secondaryState Identifies (for RTRV output) the secondary state of the module. Although this parameter is a string, its values are restricted to the following:

- ACT = Active
- FLT = Faulted
- INIT = Waiting for initialization
- MEA = Provisioned mismatch
- NBK = No backup
- PRI = Protection release inhibited
- PSI = Protection switch inhibited
- STBYC = Standby cold
- STBYH = Standby hot
- UAS = Unassigned
- UEQ = Unequipped
- UPDT = Update (CPY-MEM currently being performed)
- WRK = Working

Type: string
Range: alphanumeric characters
Default value: none

Input Examples:

```
DLT-EQPT::IOM-4;

ED-EQPT::IOM-4:::IOMODULETYPE=BA9IX72AAA,
   REDUNDANCY=PRI,SPMEMTHRESHOLD=90,
   SPNVMEMTHRESHOLD=90,SPBUSYTHRESHOLD=90,
   SWVERSION=5.0.1.0:IS;

ENT-EQPT::IOM-4:::BA9IX72AAA,SX,90,90,90,5.0.1.0:IS;

RTRV-EQPT::IOM-4;
```

Output Example:

```
   lucent 2004-04-08 14:37:49
M  0 COMPLD
   "IOM-4:BA9IX72AAA,SX,90,90,90,5.0.1.0:IS,ACT"
;
```

Related Commands:

```
DLT/ED/ENT/RTRV-EQPT-ALL
RMV/RST-EQPT
```

DLT/ED/ENT/RTRV-EQPT-ALL

Commands:

DLT-EQPT-ALL: Delete Equipment

ED-EQPT-ALL: Edit Equipment

ENT-EQPT-ALL: Enter Equipment

RTRV-EQPT-ALL: Retrieve Equipment

Descriptions:

DLT-EQPT-ALL lets the user disconnect an I/O Module; that is, it allows removing an IOM from the recognized system configuration.

ED-EQPT-ALL lets the user edit the properties of the switch module. Use ED-EQPT-ALL to change a module's type, redundancy, memory and processor utilization thresholds, software version, rear module type, and desired state.

ENT-EQPT-ALL lets the user initialize the properties of an I/O Module. Use ENT-EQPT-ALL to identify a module and set its redundancy, memory and processor utilization thresholds, software version, rear module type, and desired state.

RTRV-EQPT-ALL lets the user retrieve the properties of the switch module. Retrieved properties include the module's type, redundancy, memory and processor utilization thresholds, software version, and primary and secondary states.

Category: Equipment **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-EQPT-ALL:[TID]:<ioModule>:[CTAG];
```

```
ED-EQPT-ALL:[TID]:<iomOrSp>:[CTAG]::
   [IOMODULETYPE=<ioModuleType>],[REDUNDANCY=<rn>],
   [SPMEMTHRESHOLD=<spMemThreshold>],
   [SPNVMEMTHRESHOLD=<spNVMemThreshold>],
   [SPBUSYTHRESHOLD=<spBusyThreshold>],
   [SWVERSION=<swVersion>],
   [REARMODULETYPE=<rearModuleType>]:<pst>;
```

```
ENT-EQPT-ALL:[TID]:<ioModule>:[CTAG]::
   IOMODULETYPE=<ioModuleType>,REDUNDANCY=<rn>,
   MEMTHRESHOLD=<spMemThreshold>,
   NVMEMTHRESHOLD=<spNVMemThreshold>,
   BUSYTHRESHOLD=<spBusyThreshold>,
   SWVERSION=<swVersion>,
   [REARMODULETYPE=<rearModuleType>]:<pst>;

RTRV-EQPT-ALL:[TID]:[<iomOrSp>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<iomOrSp>:[IOMODULETYPE=<moduleType>],
      [REDUNDANCY=<rn>],MEMTHRESHOLD=<spMemThreshold>,
      NVMEMTHRESHOLD=<spNVMemThreshold>,
      BUSYTHRESHOLD=<spBusyThreshold>,
      [SWVERSION=<swVersion>],
      [REARMODULETYPE=<rearModuleType>]:
      <primaryState>,[<secondaryState>]"
;
```

Parameters:

ioModule Identifies the AID (for DLT and ENT) as an I/O module in the switch.

Type: IOMODULE
Range: IOM-{1-17}
Default value: none

iomOrSp Identifies the AID (for ED and RTRV) as an SP/TMG or I/O module in the switch.

Type: IOMorSP
Range: IOM-{1-17}
SP-{A-B}
Default value: none

ioModuleType Identifies (for ED and ENT) the type of I/O module by its CLEI code.

Type: string
Range: 10 alphanumeric characters
Default value: none

moduleType Identifies (for RTRV output) the type of module by its CLEI code.

Type: string
Range: 10 alphanumeric characters
Default value: none

rn Identifies the redundancy of the module.

Type: enum
Range: PRI = Primary unit of a pair of units. This is the protected unit.
SEC = Secondary unit in a pair of units. This is the protecting unit.
SX = This is a simplex entity.
Default value: none

spMemThreshold Identifies the memory utilization threshold percentage.

Type: integer
Range: {0-100}
Default value: none

spNVMemThreshold Identifies the disk space utilization threshold percentage.

Type: integer
Range: {0-100}
Default value: none

spBusyThreshold Identifies the CPU utilization threshold percentage.

Type: integer
Range: {0-100}
Default value: none

swVersion Identifies the software version for the IOM.

Type: string
Range: ASCII characters, typically four integers separated by periods
Default value: none

rearModuleType Identifies the type of rear module by its CLEI code.

Type: string
Range: 10 alphanumeric characters
Default value: none

pst Identifies (for ED and ENT) the primary state of the module. The value indicates the desired state of the module.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: none

primaryState Identifies (for RTRV output) the primary state of the module. Although this parameter is a string, its values are restricted to IS (In-Service) and OOS (Out-Of-Service), with OOS having possible qualifiers of AU (Autonomous) and MA (Management).

Type: string
Range: alphanumeric characters
Default value: none

secondaryState Identifies (for RTRV output) the secondary state of the module. Although this parameter is a string, its values are restricted to the following:

- ACT = Active
- FLT = Faulted
- INIT = Waiting for initialization
- MEA = Provisioned mismatch
- NBK = No backup
- PRI = Protection release inhibited
- PSI = Protection switch inhibited
- STBYC = Standby cold
- STBYH = Standby hot
- UAS = Unassigned
- UEQ = Unequipped
- UPDT = Update (CPY-MEM currently being performed)
- WRK = Working

Type: string
Range: alphanumeric characters
Default value: none

Input Examples:

```
DLT-EQPT-ALL::IOM-4;

ED-EQPT-ALL::IOM-4:::IOMODULETYPE=BA9IX72AAA,
   REDUNDANCY=PRI,SPMEMTHRESHOLD=90,
   SPNVMEMTHRESHOLD=90,SPBUSYTHRESHOLD=90,
   SWVERSION=5.0.1.0:IS;

ENT-EQPT-ALL::IOM-4:::IOMODULETYPE=BA9IX72AAA,
   REDUNDANCY=SX,MEMTHRESHOLD=90,NVMEMTHRESHOLD=90,
   BUSYTHRESHOLD=90,SWVERSION=5.0.1.0:IS;

RTRV-EQPT-ALL::IOM-4;
```

Output Example:

```
   lucent 2004-04-08 14:37:49
M  0 COMPLD
   "IOM-4:IOMODULETYPE=BA9IX72AAA,REDUNDANCY=SX,
      MEMTHRESHOLD=90,NVMEMTHRESHOLD=90,
      BUSYTHRESHOLD=90,SWVERSION=5.0.1.0:IS,ACT"
;
```

Related Commands:

```
DLT/ED/ENT/RTRV-EQPT
RMV/RST-EQPT
```

INIT-T0

Command:

INIT-T0: Initialize T0

Description:

INIT-T0 lets the user initialize a DS0 channel; that is, it resets robbed-bit signaling for CAS applications.

Category: Equipment **Security:** ADMIN

Input Format:

```
INIT-T0:[<TID>]:<t0Id>:[CTAG];
```

Output Format: none

Parameters:

t0Id Identifies the AID as a DS0 channel on an IOM.

Type: T0
Range: IOM-{1-17}-PORT-{1-28}-T0-{1-24}
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}-T0-{1-31}
IOM-{1-17}-T3-{1-8}-PORT-{1-28}-T0-{1-31}
Default value: None

Input Example:

```
INIT-T0::IOM-1-T3-2-PORT-3-T0-24;
```

Related Commands: None

RMV/RST-EQPT

Commands:

RMV-EQPT: Remove Equipment

RST-EQPT: Restore Equipment

Descriptions:

RMV-EQPT lets the user remove from service an I/O module or the standby SP module. The command takes the module from an in-service state and places it in a maintenance state. You can initiate service-affecting diagnostic routines or replacement after removing a module from service. You also can remove a module from service with ED-EQPT or ED-EQPT-ALL.

RST-EQPT lets the user restore a module to service. RST-EQPT takes the entity from a maintenance state to an in-service state for which the unit is ready to provide its service functions.

Category: Equipment **Security:** SA for both commands

Input Formats:

```
RMV-EQPT:[TID]:<iomOrSp>:[CTAG]::[<mode>],
   [<state>];
RST-EQPT:[TID]:<iomOrSp>:[CTAG]::[<mode>];
```

Output Format: none

Parameters:

iomOrSp Identifies the AID as an SP/TMG or I/O module in the switch.

Type: IOMorSP
Range: IOM-{1-17}
SP-{A-B}
Default value: none

mode Identifies (for RMV) how the module specified by the AID will be removed from service, or (for RST) whether the switch performs automatic testing of the module being restored to service to verify good working condition. This parameter is not supported presently as the switch always performs automatic testing of the equipment being restored to service; leave the field blank.

Type: string
Range: ASCII characters
Default value: none

state Identifies (for RMV) the state into which the specified entity will be moved. This parameter is not supported presently; leave it blank.

Type: string
Range: ASCII characters
Default value: none

Input Examples:

```
RMV-EQPT::IOM-4;
RST-EQPT::IOM-4;
```

Input Example:

```
RMV-EQPT::IOM-4;
```

Related Commands:

DLT/ED/ENT/RTRV-EQPT DLT/ED/ENT/RTRV-EQPT-ALL

RTRV-FAN-EQPT

Command:

RTRV-FAN-EQPT: Retrieve FAN Equipment

Description:

RTRV-FAN-EQPT lets the user retrieve parameters associated with the fan assembly in the switch.

Category: Equipment **Security:** View

Input Format:

```
RTRV-FAN-EQPT:[TID]:<fan>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<fan>:<status>,<failures>"
;
```

Parameters:

fan Identifies the AID as the fan assembly in the switch.

Type: FAN
Range: FAN
Default value: none

status Indicates whether the fan assembly is operating normally.

Type: enum
Range: OKAY
FAIL
Default value: none

failures Indicates the number of fan failures since initialization.

Type: integer
Range: {1-9999}
Default value: none

Input Example:

```
RTRV-FAN-EQPT::FAN;
```

Output Example:

```
   lucent 2004-04-08 14:37:49
M  0 COMPLD
   "FAN:OKAY,0"
;
```

Related Commands: None

RTRV-INFO-EQPT

Command:

RTRV-INFO-EQPT: Retrieve Information Equipment

Description:

RTRV-INFO-EQPT lets the user retrieve information about a module in the switch. Retrieved information include the module's CLEI code, description, software and hardware versions, serial number, self-test status, type and number of ports, number of faults, operating status, amount of available and used memory and disk space, and processor utilization.

Category: Equipment **Security:** View

Input Format:

```
RTRV-INFO-EQPT:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<iomOrSp>:[<clei>],[<desc>],[<swVersion>],
      [<hwVersion>],[<serialNumber>],
      [<selfTestStatus>],[<portType>],<portCount>,
      <externalFaults>,<internalFaults>,<inService>:
      <memFree>,<memUsed>,<nvMemFree>,<nvMemUsed>,
      <spAveBusy>:[<rearClei>],[<rearDesc>],
      [<rearHwVersion>],[<rearSerialNumber>],[<prtg>]"
;
```

Parameters:

iomOrSp Identifies the AID either as a front I/O module (by slot number), as a front SW/FAB A or B module, or as a front SP/TMG A or B module. A null value is equivalent to "ALL"; that is, by leaving the field blank, information will be returned for all configured modules.

Type: IOMorSPorSF
Range: IOM-{1-17}
SF-{A-B}
SP-{A-B}
Default value: none

clei Identifies the CLEI code for the front module specified by *src*.

Type: string
Range: 10 alphanumeric characters
Default value: none

desc Identifies a text description of the module specified by *src*.

Type: string
Range: alphanumeric characters
Default value: none

swVersion Identifies the software version for the module specified by *src*.

Type: string
Range: ASCII characters, typically four integers separated by periods
Default value: none

hwVersion Identifies the hardware version for the module specified by *src*.

Type: string
Range: ASCII characters, typically four integers separated by periods
Default value: none

serialNumber Identifies the serial number for the module specified by *src*.

Type: string
Range: alphanumeric characters
Default value: none

selfTestStatus Identifies whether the module passed or failed its self-test.

Type: enum
Range: FAIL
PASS
Default value: none

portType Identifies the type of port.

Type: enum
Range: T1
T3
UNKNOWN
Default value: none

portCount Identifies the number of ports.

Type: integer
Range: {1-9999}
Default value: none

externalFaults Identifies the number of module faults whose cause is external to the module; e.g., a loss of signal fault on an IOM.

Type: integer
Range: {1-9999}
Default value: none

internalFaults Identifies the number of module faults whose cause is internal to the module; e.g., a loss of heartbeat fault on an IOM.

Type: integer
Range: {1-9999}
Default value: none

inService Identifies whether the equipment is in service.

Type: enum
Range: N = Equipment is not in service
Y = Equipment is in service
Default value: none

memFree Identifies the amount of free memory as a percentage.

Type: integer
Range: {0-100}
Default value: none

memUsed Identifies the amount of memory used as a percentage.

Type: integer
Range: {0-100}
Default value: none

nvMemFree Identifies the amount of free disk space as a percentage.

Type: integer
Range: {0-100}
Default value: none

nvMemUsed Identifies the amount of disk space used as a percentage.

Type: integer
Range: {0-100}
Default value: none

spAveBusy Identifies CPU utilization as a percentage.

Type: integer
Range: {0-100}
Default value: none

rearClei Identifies the CLEI code for the rear module corresponding to the front module specified by *src*.

Type: string
Range: 10 alphanumeric characters
Default value: none

rearDesc Identifies a text description of the rear module corresponding to the front module specified by *src*.

Type: string
Range: alphanumeric characters
Default value: none

rearHwVersion Identifies the hardware version for the rear module corresponding to the front module specified by *src*.

Type: string
Range: ASCII characters, typically four integers separated by periods
Default value: none

rearSerialNumber Identifies the serial number for the rear module corresponding to the front module specified by *src*.

Type: string
Range: alphanumeric characters
Default value: none

prtg Identifies the faulted IOM being protected by the protection IOM.

Type: IOMODULE
Range: IOM-{1-17}
Default value: none

Input Example:

```
RTRV-INFO-EQPT::IOM-1;
```

Output Example:

```
   lucent 2004-04-08 14:37:49
M  0 COMPLD
   "IOM-1:BA9IAA0AAA,\"Lucent 28-port DS1 Front
      Module\",5.0.1.0,A-M,0000000235000134,PASS,,
      0,1,0,N:0,0,0,0,0:BA9IBC0AAA,\"Lucent 28-port
      DS1 Rear Module\",,0000000000000066,"
;
```

Related Commands: None

NOTES

OPR/SET-ACO

Commands:

OPR-ACO: Operate Alarm Cutoff

SET-ACO: Set Alarm Cutoff

Descriptions:

OPR-ACO instructs the switch to cut off the office audible alarm indications without changing the local alarm indications

SET-ACO instructs the switch to set the alarm cutoff mode for an entity. The various modes describe the degree to which the switch is permitted to provide an automatic ACO function.

Category: Fault **Security:** SA for both commands

Input Formats:

```
OPR-ACO:[TID]:[<aco_id>]:[CTAG];
SET-ACO:[TID]:<aco_id>:[CTAG]::<aco>;
```

Output Formats: none

Parameters:

aco_id Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

aco Identifies the mode of alarm cutoff operation provided by the switch.

Type: enum
Range: DELD = ACO is delayed to allow announcement
IMED = ACO introduced automatically and immediately at the switch
MAN = ACO introduced by OS command or manual operation
Default value: none

Input Examples:

```
OPR-ACO;
SET-ACO::COM:::DELD;
```

Related Commands: none

RTRV-ALM-<AidType>

Command:

RTRV-ALM-<AidType>: Retrieve Alarm (ALL, COM, E1, ENET, EQPT, OC, STS1, T1, T3)

Description:

RTRV-ALM generates a report on the current state of alarm conditions within the switch. The RTRV-COND command generates a report on both alarms and conditions.

Category: Fault **Security:** View

Input Format:

```
RTRV-ALM-<AidType>:[TID]:[<alm_id>]:[CTAG]::
   [NTFCNCDE=<ntfcncde>],[CONDTYPE=<condtype>],
   [SRVEFF=<srveff>],[OCRDAT=<ocrdat>],
   [OCRTM=<ocrtm>],[DESC=<desc>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<alm_id>,[<entitytype>]:<ntfcncde>,<condtype>,
      <srveff>,<ocrdat>,<ocrtm>,<desc>,<tblisltd>"
;
```

Parameters:

AidType Identifies the type of entity within the switch from which to retrieve alarms.

Type: ReptAid
Range: ALL = Designates the switch and all entities within it
COM = Common – designates the switch as a discreet entity
E1 = E1 ports
ENET = Ethernet ports
EQPT = Equipment – designates major assemblies
OC = OC3 ports
STS1 = STS1 ports
T1 = T1 ports
T3 = T3 ports
Default value: none

alm_id Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

ntfcncde Identifies the notification code of the event that caused the condition to be reported. This indicates the alarm level. A null value is equivalent to "ALL"; that is, by leaving the field blank, all event notification codes configured in the system will be returned.

Type: enum
Range: CL = Cleared. Never used in provisioning requests or returned in RTRVs - only active conditions are available through the RTRV-EVT/COND/ALM messages and by definition their notification codes are never CL/CLEAR.
CR = Critical
MJ = Major
MN = Minor
NA = Not Alarmed
Default value: none

condtype Indicates the condition type for an alarm or a reported event.

Type: string
Range: alphanumeric characters
Default value: NULL

srveff Identifies the effect on service caused by the alarm condition.

Type: enum
Range: SA = Service-affecting condition.
NSA = Non-service-affecting condition
Default value: NULL

ocrdat Identifies the date when the specific event or violation occurred.

Type: enum
Range: <YYYY>-{1-12}-{1-31) = <year>-{month}-{day of month}
Default value: NULL

ocrtm Identifies the time when the specific event or violation occurred.

Type: enum
Range: {0-23}-{0-59}-{0-59} = {hour}-{minute}-{second}
{0-23}-{0-59} = {hour}-{minute}
Default value: NULL

desc Describes the alarm condition.

Type: string
Range: alphanumeric characters
Default value: NULL

tblisltd Identifies (in output) an integer representing the alarm.

Type: integer
Range: up to four digits
Default value: NULL

Input Example:

```
RTRV-ALM-EQPT:::::NTFCNCDE=MN;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   "IOM-14,EQPT:MN,PRCDRERR,NSA,2004-10-29,04-34-27,
      \"Module in Slot 14 present but not
      provisioned\",79"
   "IOM-15,EQPT:MN,PROTNA,NSA,2004-10-29,04-47-52,
      \"Module in slot 15 is unprotected\",839"
   "IOM-1,EQPT:MN,PROTNA,NSA,2004-10-29,04-56-20,
      \"Module in slot 1 is unprotected\",839"
   "IOM-4,EQPT:MN,PROTNA,NSA,2004-10-29,05-00-15,
      \"Module in slot 4 is unprotected\",839"
;
```

Related Commands:

```
RTRV-COND-<ReptAid>
```

RTRV-COND-<ReptAid>

Command:

RTRV-COND-<ReptAid>: Retrieve Condition (ALL, COM, E1, ENET, EQPT, OC, STS1, T1, T3)

Description:

RTRV-COND instructs the switch to return the current standing condition and/or state associated with one or more specified facilities or equipment units in the switch. The RTRV-ALM command generates a report on just alarms.

Category: Fault **Security:** View

Input Format:

```
RTRV-COND-<ReptAid>:[TID]:[<src>]:[CTAG]::[<typereq>],
   [<locn>],[<dirn>],[<tmper>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<aid>,<aidtype>:CONDTYPE=<condtype>,
      SRVEFF=<srveff>,MONDAT=<mondat>,OCRTM=<ocrtm>,
      LOCN=<locn>,CONTSTATE=<contstate>,INVL=<invl>,
      DESC=<desc>"
;
```

Parameters:

ReptAid Identifies the type of entity within the switch from which to retrieve alarms and conditions.

Type: ReptAid
Range: ALL = Designates the switch and all entities within it
COM = Common – designates the switch as a discreet entity
E1 = E1 ports
ENET = Ethernet ports
EQPT = Equipment – designates major assemblies
OC = OC3 ports
STS1 = STS1 ports
T1 = T1 ports
T3 = T3 ports
Default value: none

src Identifies the input AID as the switch.

Type: COM
Range: COM
Default value: COM

aid Identifies the output AID as a specific entity within the switch.

Range: alphanumeric characters

aidtype Identifies, in the output AID block, the type of entity within the switch from which to retrieve alarms.

Range: ALL = Designates the switch and all entities within it
COM = Common – designates the switch as a discreet entity
ENET = Ethernet ports
EQPT = Equipment – designates major assemblies
STS1 = STS1 ports
T1 = T1 ports
T3 = T3 ports

typereq Identifies, in input, the type of condition to be retrieved. A null value defaults to all applicable condition types.

Type: string
Range: alphanumeric characters
Default value: none

condtype Identifies, in output, the current standing condition and/or state associated with the equipment specified in the AID block.

Range: alphanumeric characters

srveff Identifies, in output, the effect on service caused by the condition.

Range: SA = Service-affecting condition.
NSA = Non-service-affecting condition

mondat Identifies, in output, the monitored date. The value indicates the beginning date for the period defined by *tmper*. The format is MM-DD.

Range: {1-12}-{1-31}

ocrtm Identifies, in output, the time when the specific event or violation occurred.

Range: {0-23}-{0-59}-{0-59} = {hour}-{minute}-{second}
{0-23}-{0-59} = {hour}-{minute}

locn Identifies, in both input and output, the location of the switch. A null value defaults to all applicable locations.

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: none

dirn Identifies, in input, the direction relative to the entity in the switch. A null value defaults to all applicable directions (currently, RCV is the only valid value).

Type: enum
Range: AZ = Transmit
BTH = Both directions
NA = Not applicable
RCV = Receive direction only
TDTC = Transmit direction toward customer
TDTN = Transmit direction toward network
TRMT = Transmit direction only
ZA = Receive
Default value: RCV

tmper Identifies, in input, the period of time for which to retrieve standing conditions. This parameter is presently not used.; leave it blank

Type: enum
Range: {1}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)
Default value: none

contstate Identifies, in output, the control state of the external control.

Range: NA = Not applicable (duration is momentary)
OPER = Operated
RLS = Released

invl Identifies, in output, the interval between the next scheduled test or exercise to be executed by the switch.

Range: {1-31}-DAY = Interval in days (up to one month)
{1-24}-HR = Interval in hours (up to one day)
{1-1440}-MIN = Interval in minutes (up to one day)
NA = Not applicable (duration is momentary)

desc Describes, in output, the alarm condition.

Range: alphanumeric characters

Input Example:

```
RTRV-COND-COM:::::LOS,FEND,RCV;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   "COM,T1:CONDTYPE=LOS,SRVEFF=NSA,MONDAT=10-29,
      OCRTM=08-45-40,LOCN=FEND,CONTSTATE=NA,
      INVL=1-HR,DESC=LOSS OF SIGNAL"
;
```

Related Commands:

```
RTRV-ALM-<ReptAid>
```

NOTES

DLT/ED/ENT/RTRV-ISDN-IF

Commands:

DLT-ISDN-IF: Delete ISDN Interface

ED-ISDN-IF: Edit ISDN Interface

ENT-ISDN-IF: Enter ISDN Interface

RTRV-ISDN-IF: Retrieve ISDN Interface

Descriptions:

DLT-ISDN-IF lets the user delete an ISDN interface.

ED-ISDN-IF lets the user change the properties of an ISDN interface. Use ED-ISDN-IF to change the interface's resource allocation method, the type of remote switch, restart option, maximum frame length, LAPD retransmission counter value, timer values, the digits prefixed to the called party number, whether B-channel availability signaling is enabled, the amount of echo cancellation, whether echo cancellation processing is required due to long delay, the audio indicator, up to five general-purpose variables for custom functionality, and the primary state of the interface.

ENT-ISDN-IF lets the user initialize the properties of an ISDN interface. Use ENT-ISDN-IF to set the type of interface and the resource allocation method (hunting type). Additionally, the command can define the type of remote switch, the restart option, the maximum frame length, the LAPD retransmission counter value, timer values, the digits to attach to the beginning of incoming calls on the interface, whether to enable B-channel availability signaling, the amount of echo cancellation, whether echo cancellation processing is required due to long delay, the audio indicator, up to five general-purpose variables for custom functionality, and the primary state of the interface. ENT-ISDN-IF will not work unless the following commands have already been issued in the listed order: ENT-SS7SYS, ENT-EQPT, ENT-T1.

RTRV-ISDN-IF lets the user retrieve the properties of an ISDN interface. Use RTRV-ISDN-IF to retrieve the interface's number, type, resource allocation method (hunting type), type of remote switch, restart option, maximum frame length, LAPD retransmission counter value, timer values, prefix for incoming calls, whether to enable B-channel availability signaling, the amount of echo cancellation, whether echo cancellation processing is required due to long delay, the audio indicator, the uses and values for up to five general-purpose variables for custom functionality, the NFAS signaling links, and the primary state of the interface.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-ISDN-IF:[TID]:<ifNum>:[CTAG];

ED-ISDN-IF:[TID]:<ifNum>:[CTAG]::[ALLOC=<alloc>],
   [<ISDNVARIANT>=<isdnvariant>],[SVCTYPE=<svctype>],
   [RSTOPT=<rstopt>],[N201=<n201>],[N200=<n200>],
   [T200=<t200>],[T203=<t203>],[T301=<t301>],
   [T303=<t303>],[T305=<t305>],[T306=<t306>],
   [T308=<t308>],[T309=<t309>],[T310=<t310>],
   [T316=<t316>],[T322=<t322>],
   [PROGRESSTMR=<progresstmr>],
   [PREFIXDIGITS=<prefixDigits>],
   [BCHANAVAIL=<bchanAvail>],[ECHOCTRL=<echoCtrl>],
   [LONGDELAY=<longDelay>],[REMARK=<remark>],
   [AUDIOIND=<audioInd>],[CUSTVAR1=<custVar1>],
   [CUSTVAR2=<custVar2>],[CUSTVAR3=<custVar3>],
   [CUSTVAR4=<custVar4>],[CUSTVAR5=<custVar5>],
   [CHRGNCND=<chrgncnd>]:[<pst>];

ENT-ISDN-IF:[TID]:<ifNum>:[CTAG]::IFTYPE=<ifType>,
   [ALLOC=<alloc>],[<ISDNVARIANT>=<isdnvariant>],
   [SVCTYPE=<svctype>],[RSTOPT=<rstopt>],
   [N201=<n201>],[N200=<n200>],[T200=<t200>],
   [T203=<t203>],[T301=<t301>],[T303=<t303>],
   [T305=<t305>],[T306=<t306>],[T308=<t308>],
   [T309=<t309>],[T310=<t310>],[T316=<t316>],
   [T322=<t322>],[PROGRESSTMR=<progresstmr>],
   [PREFIXDIGITS=<prefixDigits>],
   [BCHANAVAIL=<bchanAvail>],[ECHOCTRL=<echoCtrl>],
   [LONGDELAY=<longDelay>],[REMARK=<remark>],
   [AUDIOIND=<audioInd>],[CUSTVAR1=<custVar1>],
   [CUSTVAR2=<custVar2>],[CUSTVAR3=<custVar3>],
   [CUSTVAR4=<custVar4>],[CUSTVAR5=<custVar5>],
   [CHRGNCND=<chrgncnd>]:[<pst>];

RTRV-ISDN-IF:[TID]:[<ifNum>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
 "<ifNum>:<ifType>,<alloc>:
      ISDNVARIANT=<isdnvariant>,SVCTYPE=<svctype>,
      RSTOPT=<rstopt>,N201=<n201>,N200=<n200>,
      T200=<t200>,T203=<t203>,T301=<t301>,T303=<t303>,
      T305=<t305>,T306=<t306>,T308=<t308>,T309=<t309>,
      T310=<t310>,T316=<t316>,T322=<t322>,
      PROGRESSTMR=<progresstmr>,
      PREFIXDIGITS=<prefixDigits>,
      BCHANAVAIL=<bchanAvail>,ECHOCTRL=<echoCtrl>,
      LONGDELAY=<longDelay>,REMARK=<remark>,
      AUDIOIND=<audioInd>,NFASLNK=<nfaslnk>,
      NFASBACKUPLNK=<nfasbackuplnk>,
      CUSTUSE1=<custUse1>,CUSTVAR1=<custVar1>,
      CUSTUSE2=<custUse2>,CUSTVAR2=<custVar2>,
      CUSTUSE3=<custUse3>,CUSTVAR3=<custVar3>,
      CUSTUSE4=<custUse4>,CUSTVAR4=<custVar4>,
      CUSTUSE5=<custUse5>,CUSTVAR5=<custVar5>,
      CHRGNCND=<chrgncnd>:<pst>,[<sst>]"
;
```

Parameters:

ifNum Identifies the AID as an ISDN interface. A null value (in RTRV input) is equivalent to "ALL"; that is, by leaving the field blank, information for all ISDN interfaces configured in the system will be returned. A range of interfaces is shown by the beginning and ending numbers separated by two ampersands and a hyphen (“&&-”).

Type: IsdnIfNum
Range: {1-32767}
Default value: none

ifType Identifies the type of interface.

Type: enum
Range: NFAS = Non-facility-associated signaling.
NFASBACKUP = Non-facility-associated signaling with a backup D channel on a different T1.
PRI = Primary rate ISDN.
Default value: none

alloc Identifies the resource allocation method (hunting type) for selecting channels within links on the interface.

Type: enum
Range: ASCENDING = Allocates the lowest numbered available channel in a numbered list of channels on the lowest numbered available link in a numbered list of links.
CIRCULAR = Allocates the next free channel, in ascending order, following the last channel selected.
DESCENDING = Allocates the highest numbered available channel in a numbered list of channels on the highest numbered available link in a numbered list of links.
RANDOM = Allocates the next free channel, in ascending order, based on a random entry into a numbered list of resources. After the first allocation from that numbered list of resources, subsequent attempts to find a free resource use the circular method.
Default value: CIRCULAR

isdnvariant Identifies the type of switch at the remote end of the interface. Note that 4ESS and 5ESS switches do not support NFAS interfaces (The value of *ifType* cannot be "NFAS" or "NFASBACKUP" when the value of *isdnvariant* is "4ESS" or "5ESS".

Type: enum
Range: 4ESS = Lucent 4ESS switch
5ESS = Lucent 5ESS switch
DMS100 = Nortel DMS100 switch
NI2 = National ISDN 2-compliant generic switch
Default value: NI2

svctype Identifies the service type; that is, whether the subject interface is on the network or user side.

Type: enum
Range: NETWORK = network side
USER = user side
Default value: NETWORK

rstopt Identifies the restart option; i.e., whether a restart message is issued on a link start up.

Type: enum
Range: ALL = restart enabled for all channels
BCHANONLY = restart enabled for B-channel only
NONE = restart not enabled
Default value: BCHANONLY

n201 Identifies the maximum frame length. Q.931 messages that do not fit into one LAPD frame are fragmented.

Type: integer
Range: {0-4095}
Default value: 260

n200 Identifies the LAPD retransmission counter value.

Type: integer
Range: {0-1023}
Default value: 3

t200 Identifies the LAPD T200 acknowledgement timer value (in increments of 0.1 second), which represents the maximum time allowed to receive an acknowledge message after transmission of a command frame.

Type: integer
Range: {0.5-5}
Default value: 1

t203 Identifies the T203 idle link timer value (in increments of 10 seconds), which represents the maximum time allowed for periods of inactivity on a link during multiple frame operations. For D-channel backup, it relates to the time it takes to declare a D-channel as failed.

Type: integer
Range: {10-300}
Default value: 30

t301 Identifies the T301 timer value (in minutes), which Identifies the maximum time from switch receipt of an ALERTing message from the called party until CONNect message is received from the called party.

Type: integer
Range: {0-600}
Default value: 300

t303 Identifies the T303 timer value (in seconds), which specifies the maximum time from switch transmission of an initial SETUP message to the called party until receipt of the CALL PROCeeding message from the called party.

Type: integer
Range: {1-4}
Default value: 4

t305 Identifies the T305 timer value (in seconds), which specifies the maximum time from transmittal of a DISConnect message to the calling or called party until a DISConnect, RELease, or RELease COMplete message is received from that party.

Type: integer
Range: {2-60}
Default value: 30

t306 Identifies the T306 timer value (in seconds), which specifies the maximum time from transmittal of a PROGress message to the calling party until a DISConnect message is received from the calling party.

Type: integer
Range: {30-150}
Default value: 60

t308 Identifies the T308 timer value (in seconds), which specifies the maximum time from transmittal of a RELease message to the calling or called party until a RELease or RELease COMplete message is received from that party.

Type: integer
Range: {2-10}
Default value: 4

t309 Identifies the T309 timer value (in seconds), which specifies the time from switch detection of a data link malfunction during an active call until receipt of a STATus, DISConnect, RELease, or RELease COMplete message from the customer equipment.

Type: integer
Range: {10-90}
Default value: 90

t310 Identifies the T310 timer value (in seconds), which specifies the maximum time from transmittal of a PROCeeding message from the called party until ALERTing, PROGress, CONNect message, or DISConnect is received from the called party.

Type: integer
Range: {3-10}
Default value: 10

t316 Identifies the T316 timer value (in seconds), which specifies the maximum time from switch transmittal of a RESTart message to the calling or called party until a RESTart ACKnowledge message is received from that party.

Type: integer
Range: {10-120}
Default value: 30

t322 Identifies the T322 timer value (in seconds), which specifies the maximum time from transmittal of a STATus ENQuiry message to the calling or called party until a STATus, DISConnect, RELease, or RELease COMplete message is received from that party.

Type: integer
Range: {2-10}
Default value: 4

progresstmr Identifies the progress timer value in minutes.

Type: integer
Range: {0-600}
Default value: 300

prefixDigits Identifies the digits prefixed to the called party number for each incoming call on the interface.

Type: string
Range: up to 10 digits
Default value: NULL

bchanAvail Identifies whether B-channel availability signaling is enabled for National ISDN 2-compliant generic switches (*isdnvariant* = NI2). B-channel availability signaling lets an NI2 switch notify and negotiate B-channel status changes with the far end.

Type: BoolYN
Range: N = B-channel availability signaling is disabled
Y = B-channel availability signaling is enabled
Default value: N

echoCtrl Identifies the amount, in milliseconds, of echo cancellation for outgoing calls.

Type: integer
Range: {0-128}
Default value: 32

longDelay Identifies whether echo cancellation processing is required because of a long delay (echo tail).

Type: BoolYN
Range: N = echo processing is off (for short-haul; i.e., less than 15 msec propagation delay)
Y = echo processing is on (for long-haul)
Default value: N

remark Identifies optional notes or remarks for use by the carrier.

Type: string
Range: up to 16 characters
Default value: NULL

audioInd Identifies the value sent in the infotransfer indicator of the User Service Information parameter in the IAM for calls on ISUP trunks.

Type: enum
Range: 3.1KHZ = infotransfer default value is overridden to indicate 3.1KHz audio in BearerCap/UserServiceInformation of IAM message
DEFAULT = infotransfer indicator is determined by the ISDN interworking functionality and is not overridden by provisioning
SPEECH = infotransfer default value is overridden to indicate speech in the BearerCap/UserServiceInformation of IAM message
Default value: DEFAULT

nfaslnk Identifies (in RTRV output) the signaling link used for an NFAS interface, which uses the D-channel of this link for signaling.

Type: integer
Range: {0-32767}
Default value: none

nfasbackuplnk Identifies (in RTRV output) the backup signaling link used for an NFAS interface.

Type: integer
Range: {0-32767}
Default value: none

custUse1 Identifies (in RTRV output) the use for custom variable 1.

Type: string
Range: up to 32 characters
Default value: NULL

custVar1 Identifies the value of custom variable 1.

Type: string
Range: up to 16 characters
Default value: NULL

custUse2 Identifies (in RTRV output) the use for custom variable 2.

Type: string
Range: up to 32 characters
Default value: NULL

custVar2 Identifies the value of custom variable 2.

Type: string
Range: up to 16 characters
Default value: NULL

custUse3 Identifies (in RTRV output) the use for custom variable 3.

Type: string
Range: up to 32 characters
Default value: NULL

custVar3 Identifies the value of custom variable 3.

Type: string
Range: up to 16 characters
Default value: NULL

custUse4 Identifies (in RTRV output) the use for custom variable 4.

Type: string
Range: up to 32 characters
Default value: NULL

custVar4 Identifies the value of custom variable 4.

Type: string
Range: up to 16 characters
Default value: NULL

custUse5 Identifies (in RTRV output) the use for custom variable 5.

Type: string
Range: up to 32 characters
Default value: NULL

custVar5 Identifies the value of custom variable 5.

Type: string
Range: up to 16 characters
Default value: NULL

chrgncnd Identifies whether the charge number can be used for calling number delivery on interworking calls or PRIs when the calling party number is not available and MF-SS7 interworking is indicated.

Type: BoolYN
Range: N = charge number cannot be used for calling number delivery
Y = charge number can be used for calling number delivery
Default value: Y

pst Identifies (for ED and ENT) the desired primary state of the interface.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: none

pst Identifies (for RTRV output) the primary state of the interface.

Type: enum
Range: IS-NR = In-Service, Normal
OOS = Out-Of-Service
OOS-AU = Out-Of-Service, Autonomous
OOS-MA = Out-Of-Service, Managed
OOS-AUMA = Out-Of-Service, Autonomous and Managed
Default value: none

sst Identifies (for RTRV output) the secondary state of the interface.

Type: enum

Range: ACT = Active, D channel is in service. In combination with IS, it's used only for interface type PRI or NFAS without backup D channel

DCHL = D-channel. In combination with OOS-AU, Identifies that the interface is OOS because the D-channel is OOS

DSBLD = Disabled. In combination with OOS-MA, Identifies that the interface has had maintenance blocked by management, although the IOM is IS.

SGEO = Supporting Entity Outage. In combination with OOS-AU, Identifies that the interface is OOS because the IOM port is OOS. In combination with OOS-AUMA, Identifies that the interface has been put OOS and the IOM port is OOS.

RSTRQD = Reset Required. In combination with OOS, Identifies an inconsistent or unexpected state that may require resetting the interface at either end, or locally resetting the IOM ports.

PRIACT = Primary D-channel Active. In combination with IS, Identifies that both D channels are up, with the primary D-channel (D1) in service and D2 in a standby state. This state is valid only when the value of *ifType* is "NFASBACKUP".

SECACT = Secondary D-channel Active. In combination with IS, Identifies that both D channels are up, with the backup D-channel (D2) in service and D1 in a standby state. This state is valid only when the value of *ifType* is "NFASBACKUP".

PRIOOS = Primary D-channel Out-Of-Service. In combination with IS, Identifies D1 is OOS, D2 is IS. This state is valid only when the value of *ifType* is "NFASBACKUP".

SECOOS = Secondary D-channel Out-Of-Service. In combination with IS, Identifies D1 is IS, D2 is OOS. This state is valid only when the value of *ifType* is "NFASBACKUP".

Default value: none

Input Examples:

```
DLT-ISDN-IF::14;

ED-ISDN-IF::14:::ALLOC=CIRCULAR,ISDNVARIANT=NI2,
   SVCTYPE=NETWORK,RSTOPT=BCHANONLY,N201=260,N200=3,
   T200=1,T203=10,T301=5,T303=4,T305=30,T306=60,
   T308=4,T309=90,T310=10,T316=30,T322=4,
   PROGRESSTMR=5,PREFIXDIGITS=508,BCHANAVAIL=N,
   ECHOCTRL=32,LONGDELAY=N,REMARK=NULL,
   AUDIOIND=DEFAULT,CUSTVAR1=NULL,CUSTVAR2=NULL,
   CUSTVAR3=NULL,CUSTVAR4=NULL,CUSTVAR5=NULL,
   CHRGNCND=Y:IS;
```

ENT-ISDN-IF examples interrelated with input examples given in **ENT-ISDN-LNK**:

(Without NFAS)

```
ENT-ISDN-IF::1:::IFTYPE=PRI,ALLOC=ASCENDING:IS;
ENT-ISDN-IF::2:::IFTYPE=PRI,ALLOC=ASCENDING;
ENT-ISDN-IF::3:::IFTYPE=PRI,ALLOC=ASCENDING;
ENT-ISDN-IF::4:::IFTYPE=PRI,ALLOC=ASCENDING;
```

(With NFAS, no backup)

```
ENT-ISDN-IF::1:::IFTYPE=NFAS,ALLOC=ASCENDING;
ENT-ISDN-IF::2:::IFTYPE=PRI,ALLOC=ASCENDING;
```

(With NFAS Backup)

```
ENT-ISDN-IF::1:::IFTYPE=NFASBACKUP,ALLOC=ASCENDING;
ENT-ISDN-IF::2:::IFTYPE=PRI,ALLOC=ASCENDING;
```

```
RTRV-ISDN-IF::14&&-16;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "14:IFTYPE=PRI,ALLOC=ASCENDING,ISDNVARIANT=NI2,
      SVCTYPE=NETWORK,RSTOPT=BCHANONLY,N201=260,
      N200=3,T200=1,T203=10,T301=5,T303=4,T305=30,
      T306=60,T308=4,T309=90,T310=10,T316=30,T322=4,
      PROGRESSTMR=5,PREFIXDIGITS=508,BCHANAVAIL=N,
      ECHOCTRL=32,LONGDELAY=N,REMARK=NULL,
      AUDIOIND=DEFAULT,NFASLNK=0,NFASBACKUPLNK=0,
      CUSTUSE1=NULL,CUSTVAR1=NULL,CUSTUSE2=NULL,
      CUSTVAR2=NULL,CUSTUSE3=NULL,CUSTVAR3=NULL,
      CUSTUSE4=NULL,CUSTVAR4=NULL,CUSTUSE5=NULL,
      CUSTVAR5=NULL,CHRGNCND=Y:IS-NR,ACT"

   "15:IFTYPE=PRI,ALLOC=ASCENDING,ISDNVARIANT=NI2,
      SVCTYPE=NETWORK,RSTOPT=BCHANONLY,N201=260,
      N200=3,T200=1,T203=10,T301=5,T303=4,T305=30,
      T306=60,T308=4,T309=90,T310=10,T316=30,T322=4,
      PROGRESSTMR=5,PREFIXDIGITS=508,BCHANAVAIL=N,
      ECHOCTRL=32,LONGDELAY=N,REMARK=NULL,
      CUSTUSE1=NULL,CUSTVAR1=NULL,CUSTUSE2=NULL,
      CUSTVAR2=NULL,CUSTUSE3=NULL,CUSTVAR3=NULL,
      CUSTUSE4=NULL,CUSTVAR4=NULL,CUSTUSE5=NULL,
      CUSTVAR5=NULL,CHRGNCND=Y:IS-NR,ACT"

   "16:IFTYPE=PRI,ALLOC=ASCENDING,ISDNVARIANT=NI2,
      SVCTYPE=NETWORK,RSTOPT=BCHANONLY,N201=260,
      N200=3,T200=1,T203=10,T301=5,T303=4,T305=30,
      T306=60,T308=4,T309=90,T310=10,T316=30,T322=4,
      PROGRESSTMR=5,PREFIXDIGITS=508,BCHANAVAIL=N,
      ECHOCTRL=32,LONGDELAY=N,REMARK=NULL,
      CUSTUSE1=NULL,CUSTVAR1=NULL,CUSTUSE2=NULL,
      CUSTVAR2=NULL,CUSTUSE3=NULL,CUSTVAR3=NULL,
      CUSTUSE4=NULL,CUSTVAR4=NULL,CUSTUSE5=NULL,
      CUSTVAR5=NULL,CHRGNCND=Y:IS-NR,ACT"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-ISDN-LNK

Commands:

DLT-ISDN-LNK: Delete ISDN Link

ED-ISDN-LNK: Edit ISDN Link

ENT-ISDN-LNK: Enter ISDN Link

RTRV-ISDN-LNK: Retrieve ISDN Link

Descriptions:

DLT-ISDN-LNK lets the user delete an ISDN link.

ED-ISDN-LNK lets the user change the carrier's remarks for an ISDN link.

ENT-ISDN-LNK lets the user initialize the properties of an ISDN link. Use ENT-ISDN-LNK to set the link's associated port, B channel number range, and the link ID within an NFAS interface. The command assigns an interface number to a T1 link, assigns a link number to an IOM and port, configures PRI B-channel usage, and assigns an NFAS group ID if the interface is part of an NFAS group. ENT-ISDN-LNK will not work correctly unless the following commands have already been issued in the listed order: ENT-SS7SYS, ENT-EQPT, ENT-T1, and ENT-ISDN-IF.

RTRV-ISDN-LNK lets the user retrieve the properties of an ISDN link. Use RTRV-ISDN-LNK to retrieve the link's associated IOM, port, B channel number range, and the link ID within an NFAS interface.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-ISDN-LNK:[TID]:<src>:[CTAG];

ED-ISDN-LNK:[TID]:<src>:[CTAG]::REMARK=<remark>;

ENT-ISDN-LNK:[TID]:<src>:[CTAG]::IOMPORT=<port>,
   LNKTYPE=<lnkType>,[STARTCHAN=<startChanNum>],
   [ENDCHAN=<endChanNum>],[NFASLNKID=<nfasLnkId>],
   [REMARK=<remark>];

RTRV-ISDN-LNK:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<isdnLnkId>:IOMPORT=<port>,LNKTYPE=<lnkType>,
      STARTCHAN=<startChanNum>,ENDCHAN=<endChanNum>,
      NFASLNKID=<nfasLnkId>,REMARK=<remark>,
      LNKSTATE=<lnkState>"
;
```

Parameters:

src Identifies the AID as an ISDN link on an interface. The first number in the range identifies the interface; the second identifies the link. The interface ID has global significance in comparison to the link number. A null value (in RTRV input) is equivalent to "ALL"; that is, by leaving the AID field blank, information for all ISDN links configured in the system will be returned. A null value for the second field in the AID (in RTRV input) is equivalent to "ALL"; that is, by leaving the field blank, information for all ISDN links on the specified interface will be returned. Show a range of links on an interface by separating the beginning and ending link numbers with two ampersands and a hyphen (“&&-”). Show a range of links spanning interfaces by separating the beginning and ending interface numbers (each followed by a link) with two ampersands (“&&”).

Type: IsdnLink
Range: {1-32767}-{1-32767}
Default value: none

isdnLnkId Identifies the AID (in RTRV output) as an ISDN link on an interface. The first number in the range identifies the interface; the second identifies the link. The interface ID has global significance in comparison to the link number.

Type: IsdnLink
Range: {1-32767}-{1-32767}
Default value: none

port Identifies the port on the I/O module that pertains to the link being configured.

Type: enum
Range: IOM-{1-17}-PORT-{1-28}
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}
IOM-{1-17}-T3-{1-8}-PORT-{1-28}
Default value: none

lnkType Identifies the type of link.

Type: enum
Range: B_LNK = B-link
D_LNK= D-link for PRI ISDN
D_PRI = Primary NFAS D-Link
D_SEC = Secondary NFAS D-Link
Default value: none

startChanNum Identifies the beginning of the B-channel number range.

Type: integer
Range: {1}
Default value: 1

endChanNum Identifies the end of the B-channel number range.

Type: integer
Range: {23, 24}
Default value: 23

nfasLnkId Identifies a particular link within an NFAS interface and must be unique for every link in an NFAS interface. The range is one less than the number of links in the NFAS group.

Type: integer
Range: {0-27}
Default value: 0

remark Identifies optional notes or remarks for use by the carrier.

Type: string
Range: up to 16 characters
Default value: NULL

lnkState Identifies (in RTRV output) the link state of an ISDN signaling channel.

Type: enum
Range: CONNECT = Link is connecting
DOWN = Link is down
RESTART = Link is restarting
UP = Link is up
Default value: none

Input Examples:

```
DLT-ISDN-LNK::14-3;

ED-ISDN-LNK::4-4::REMARK=8202MB;
```

ENT-ISDN-LNK examples interrelated with input examples given in **ENT-ISDN-IF**:

(Without NFAS)

```
ENT-ISDN-LNK::1-1:::IOMPORT=IOM-4-PORT-1,
   LNKTYPE=D_LNK,STARTCHAN=1,ENDCHAN=23,NFASLNKID=0;

ENT-ISDN-LNK::2-2:::IOMPORT=IOM-4-PORT-2,
   LNKTYPE=D_LNK,STARTCHAN=1,ENDCHAN=23,NFASLNKID=0;

ENT-ISDN-LNK::3-3:::IOMPORT=IOM-4-PORT-3,
   LNKTYPE=D_LNK,STARTCHAN=1,ENDCHAN=23,NFASLNKID=0;

ENT-ISDN-LNK::4-4:::IOMPORT=IOM-4-PORT-4,
   LNKTYPE=D_LNK,STARTCHAN=1,ENDCHAN=23,NFASLNKID=0;
```

(With NFAS, no backup)

```
ENT-ISDN-LNK::1-1:::IOMPORT=IOM-4-PORT-1,
   LNKTYPE=D_LNK,STARTCHAN=1,ENDCHAN=23,NFASLNKID=0;

ENT-ISDN-LNK::1-2:::IOMPORT=IOM-4-PORT-2,
   LNKTYPE=B_LNK,STARTCHAN=1,ENDCHAN=24,NFASLNKID=1;

ENT-ISDN-LNK::1-3:::IOMPORT=IOM-4-PORT-3,
   LNKTYPE=B_LNK,STARTCHAN=1,ENDCHAN=24,NFASLNKID=2;

ENT-ISDN-LNK::2-4:::IOMPORT=IOM-4-PORT-4,
   LNKTYPE=B_LNK,STARTCHAN=1,ENDCHAN=23,NFASLNKID=0;
```

(With NFAS Backup)

```
ENT-ISDN-LNK::1-1:::IOMPORT=IOM-4-PORT-1,
   LNKTYPE=D_PRI,STARTCHAN=1,ENDCHAN=23,NFASLNKID=0;

ENT-ISDN-LNK::1-2:::IOMPORT=IOM-4-PORT-2,
   LNKTYPE=B_LNK,STARTCHAN=1,ENDCHAN=23,NFASLNKID=1;

ENT-ISDN-LNK::1-3:::IOMPORT=IOM-4-PORT-3,
   LNKTYPE=B_LNK,STARTCHAN=1,ENDCHAN=24,NFASLNKID=2;

ENT-ISDN-LNK::2-4:::IOMPORT=IOM-4-PORT-4,
   LNKTYPE=D_SEC,STARTCHAN=1,ENDCHAN=23,NFASLNKID=0;

RTRV-ISDN-LNK::14-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "14-1:IOMPORT=IOM-1-PORT-1,LNKTYPE=D_LNK,
      STARTCHAN=1,ENDCHAN=23,NFASLNKID=0,REMARK=NULL,
      LNKSTATE=CONNECT"
;
```

Related Commands: none

ED-STATE-ISDNBCHAN

Command:

ED-STATE-ISDNBCHAN: Edit State ISDN B-Channel

Description:

ED-STATE-ISDNBCHAN lets the user edit the properties of an ISDN B channel.

Category: Signaling **Security:** SA

Input Format:

```
ED-STATE-ISDNBCHAN:[TID]:<isdnChanId>:[CTAG]::
   <endChanNum>,<chanAction>;
```

Output Format: none

Parameters:

isdnChanId Identifies the ISDN B channel. The range is {interface}-{link}-{channel}.

Type: IsdnChanAid
Range: {1-32767}-{1-32767}-{1-24}
Default value: none

endChanNum Identifies the end of the B channel number range.

Type: integer
Range: {1-24}
Default value: none

chanAction Identifies the action to take for the ISDN B channel.

Type: enum
Range: CHAN-ENB = Enable the channel
CHAN-RESET = Reset the channel
CHANFORCE-DIS = Forcefully disconnect from the channel
Default value: none

Input Example:

```
ED-STATE-ISDNBCHAN::14-12-1:::1,CHAN-ENB;
```

Related Commands: none

INIT-REG-ISDNMSG / RTRV-PM-ISDNMSG

Commands:

INIT-REG-ISDNMSG: Initialize Register ISDN Message

RTRV-PM-ISDNMSG: Retrieve Performance Monitors ISDN Message

Descriptions:

INIT-REG-ISDNMSG lets the user clear the counters for ISDN message statistics.

RTRV-PM-ISDNMSG lets the user retrieve current and historical performance data for ISDN messages in the switch.

Category: Signaling **Security:** NSA for INIT-REG, View for RTRV-PM

Input Formats:

```
INIT-REG-ISDNMSG:[TID]:<isdnIfNum>:[CTAG]::<montype>,
   [<monval>],[<locn>],[<dirn>];
```

```
RTRV-PM-ISDNMSG:[TID]:<isdnIfNum>:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<isdnIfNum>:<montype>,<monval>,<monlev>,<locn>,
      <dirn>"
;
```

Parameters:

isdnIfNum Identifies the AID as an ISDN interface

Type: IsdnIfNum
Range: {1-32767}
Default value: none

montype Identifies the type of monitored call control parameter. "ALL" is the only valid input value.

Type: enum

Range: ALERTINGRX = Number of alerting messages received
ALERTINGTX = Number of alerting messages transmitted
ALL = All types
AVECALLS = Average number of open calls
CALLPROCRX = Number of call proceeding messages received
CALLPROCTX = Number of call proceeding messages transmitted
CONGCNTRLRX = Number of congestion control messages received
CONGLTX = Number of congestion control messages transmitted
CONNACKRX = Number of connect acknowledge messages received
CONNACKTX = Number of connect acknowledge messages transmitted
CONNRX = Number of connect messages received
CONNTX = Number of connect messages transmitted
CONS = Total number of connect messages
DISCRX = Number of disconnect messages received
DISCS = Total number of disconnect messages
DISCTX = Number of disconnect messages transmitted
FACILACKRX = Number of facility acknowledge messages received
FACILACKTX = Number of facility acknowledge messages transmitted
FACILREJRX = Number of facility reject messages received
FACILREJTX = Number of facility reject messages transmitted
FACILRX = Number of facility messages received
FACILTX = Number of facility messages transmitted
HOLDACKRX = Number of hold acknowledge messages received
HOLDACKTX = Number of hold acknowledge messages transmitted
HOLDREJRX = Number of hold reject messages received
HOLDREJTX = Number of hold reject messages transmitted
HOLDRX = Number of hold messages received
HOLDTX = Number of hold messages transmitted
INFORX = Number of information messages received
INFOTX = Number of information messages transmitted

LASTINITNA = Number of minutes since initialization of all counters for which there is no direction (neither RCV nor TRMT)
LASTINITRCV = Number of minutes since initialization of all RCV (receive) counters
LASTINITTRMT = Number of minutes since initialization of all TRMT (transmit) counters
LSTRXCAUSE = Last received cause code
LSTRXDGN = Last received diagnostic code
LSTTXCAUSE = Last transmitted cause code
LSTTXDGN = Last transmitted diagnostic code
NOTIFYRX = Number of notify messages received
NOTIFYTX = Number of notify messages transmitted
PROGRESSRX = Number of progress messages received
PROGRESSTX = Number of progress messages transmitted
REGRX = Number of register messages received
REGTX = Number of register messages transmitted
RELCMPLTRX = Number of release complete messages received
RELCMPLTTX = Number of release complete messages transmitted
RELRX = Number of release messages received
RELTX = Number of release messages transmitted
RETACKRX = Number of retrieve acknowledge messages received
RETACKTX = Number of retrieve acknowledge messages transmitted
RETREJRX = Number of retrieve reject messages received
RETREJTX = Number of retrieve reject messages transmitted
RETRX = Number of retrieve messages received
RETTX = Number of retrieve messages transmitted
RSMACKRX = Number of resume acknowledge messages received
RSMACKTX = Number of resume acknowledge messages transmitted
RSMREJRX = Number of resume reject messages received
RSMREJTX = Number of resume reject messages transmitted
RSMRX = Number of resume messages received
RSMTX = Number of resume messages transmitted
RSTACKRX = Number of restart acknowledge messages received
RSTACKTX = Number of restart acknowledge messages transmitted
RSTRX = Number of restart messages received

RSTTX = Number of restart messages transmitted
SEGMENTRX = Number of segment messages received
SEGMENTX = Number of segment messages transmitted
SERVACKRX = Number of service acknowledge messages received
SERVACKTX = Number of service acknowledge messages transmitted
SERVRX = Number of service messages received
SERVTX = Number of service messages transmitted
SETUPACKRX = Number of setup acknowledge messages received
SETUPACKTX = Number of setup acknowledge messages transmitted
SETUPRX = Number of setup messages received
SETUPTX = Number of setup messages transmitted
STATENQRX = Number of status enquiry messages received
STATENQTX = Number of status enquiry messages transmitted
STATRX = Number of status messages received
STATTX = Number of status messages transmitted
SUSPACKRX = Number of suspend acknowledge messages received
SUSPACKTX = Number of suspend acknowledge messages transmitted
SUSPREJRX = Number of suspend reject messages received
SUSPREJTX = Number of suspend messages reject transmitted
SUSPRX = Number of suspend messages received
SUSPTX = Number of suspend messages transmitted
USRINFORX = Number of user information messages received
USRINFOTX = Number of user information messages transmitted

Default value: none

monval Monitored value is either the measured value of the monitored parameter, or the value to which the register identified by montype is to be initialized. The value is in the form of numeric counts or rates. The value is "0" if the value of *montype* is "ALL".

Type: integer
Range: {0-9999}
Default value: 0

monlev Identifies (in RTRV-PM) the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

locn Identifies the location of the storage counters to be initialized or from which to retrieve performance data. Currently only NEND is supported.

Type: enum
Range: NEND = near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters.

Type: enum
Range: ALL = All directions
NA = Direction not applicable
RCV = Receive direction only
TRMT = Transmit direction only
Default value: ALL

Input Examples:

```
INIT-REG-ISDNMSG;
RTRV-PM-ISDNMSG;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:ALERTINGTX,0,0-UP,NEND,ALL"
   ":CALLPROCTX,0,0-UP,NEND,ALL"
   ":CONNTX,0,0-UP,NEND,ALL"
   ":CONNTX,4,0-UP,NEND,ALL"
   ":PROGRESSTX,0,0-UP,NEND,ALL"
   ":SETUPTX,4,0-UP,NEND,ALL"
   ":SETUPACKTX,0,0-UP,NEND,ALL"
   ":RSMTX,0,0-UP,NEND,ALL"
   ":RSMACKTX,0,0-UP,NEND,ALL"
   "1:RSMREJTX,0,0-UP,NEND,ALL"
   "1:SUSPTX,0,0-UP,NEND,ALL"
   "1:SUSPACKTX,0,0-UP,NEND,ALL"
   "1:SUSPREJTX,0,0-UP,NEND,ALL"
   "1:USRINFOTX,0,0-UP,NEND,ALL"
   "1:HOLDTX,0,0-UP,NEND,ALL"
```

```
"1:HOLDACKTX,0,0-UP,NEND,ALL"
"1:HOLDREJTX,0,0-UP,NEND,ALL"
"1:RETTX,0,0-UP,NEND,ALL"
"1:RETACKTX,0,0-UP,NEND,ALL"
"1:RETREJTX,0,0-UP,NEND,ALL"
"1:DISCTX,3,0-UP,NEND,ALL"
"1:RELTX,0,0-UP,NEND,ALL"
"1:RELCMPLTTX,3,0-UP,NEND,ALL"
"1:RSTTX,0,0-UP,NEND,ALL"
"1:RSTACKTX,0,0-UP,NEND,ALL"
"1:SEGMENTX,0,0-UP,NEND,ALL"
"1:CONGLTX,0,0-UP,NEND,ALL"
"1:INFOTX,0,0-UP,NEND,ALL"
"1:NOTIFYTX,0,0-UP,NEND,ALL"
"1:STATTX,0,0-UP,NEND,ALL"
"1:STATENQTX,0,0-UP,NEND,ALL"
"1:SERVTX,0,0-UP,NEND,ALL"
"1:SERVACKTX,0,0-UP,NEND,ALL"
"1:FACILTX,0,0-UP,NEND,ALL"
"1:FACILACKTX,0,0-UP,NEND,ALL"
"1:FACILREJTX,0,0-UP,NEND,ALL"
"1:REGTX,0,0-UP,NEND,ALL"
"1:LASTINITTRMT,1123,0-UP,NEND,ALL"
"1:ALERTINGRX,4,0-UP,NEND,ALL"
"1:CALLPROCRX,4,0-UP,NEND,ALL"
"1:CONNRX,4,0-UP,NEND,ALL"
"1:CONNACKRX,0,0-UP,NEND,ALL"
"1:PROGRESSRX,0,0-UP,NEND,ALL"
"1:SETUPRX,0,0-UP,NEND,ALL"
"1:SETUPACKRX,0,0-UP,NEND,ALL"
"1:RSMRX,0,0-UP,NEND,ALL"
"1:RSMACKRX,0,0-UP,NEND,ALL"
"1:RSMREJRX,0,0-UP,NEND,ALL"
"1:SUSPRX,0,0-UP,NEND,ALL"
"1:SUSPACKRX,0,0-UP,NEND,ALL"
"1:SUSPREJRX,0,0-UP,NEND,ALL"
"1:USRINFORX,0,0-UP,NEND,ALL"
"1:HOLDRX,0,0-UP,NEND,ALL"
"1:HOLDACKRX,0,0-UP,NEND,ALL"
"1:HOLDREJRX,0,0-UP,NEND,ALL"
"1:RETRX,0,0-UP,NEND,ALL"
"1:RETACKRX,0,0-UP,NEND,ALL"
"1:RETREJRX,0,0-UP,NEND,ALL"
"1:DISCRX,0,0-UP,NEND,ALL"
"1:RELRX,3,0-UP,NEND,ALL"
"1:RELCMPLTRX,0,0-UP,NEND,ALL"
"1:RSTRX,0,0-UP,NEND,ALL"
```

```
   "1:RSTACKRX,0,0-UP,NEND,ALL"
   "1:SEGMENTRX,0,0-UP,NEND,ALL"
   "1:CONGCNTRLRX,0,0-UP,NEND,ALL"
   "1:INFORX,0,0-UP,NEND,ALL"
   "1:NOTIFYRX,0,0-UP,NEND,ALL"
   "1:STATRX,0,0-UP,NEND,ALL"
   "1:STATENQRX,0,0-UP,NEND,ALL"
   "1:SERVRX,0,0-UP,NEND,ALL"
   "1:SERVACKRX,0,0-UP,NEND,ALL"
   "1:FACILRX,0,0-UP,NEND,ALL"
   "1:FACILACKRX,0,0-UP,NEND,ALL"
   "1:FACILREJRX,0,0-UP,NEND,ALL"
   "1:REGRX,0,0-UP,NEND,ALL"
   "1:LASTINITRCV,1123,0-UP,NEND,ALL"
   "1:CONS,4,0-UP,NEND,ALL"
   "1:DISCS,3,0-UP,NEND,ALL"
   "1:AVECALLS,1,0-UP,NEND,ALL"
   "1:LASTINITNA,1123,0-UP,NEND,ALL"
;
```

Related Commands:

RTRV-STATS-ISDNMSG

INIT-REG-LAPD / RTRV-PM-LAPD

Commands:

INIT-REG-LAPD: Initialize Register LAPD

RTRV-PM-ISDNMSG: Retrieve Performance Monitors LAPD

Descriptions:

INIT-REG-LAPD lets the user clear the counters for LAPD (Link Access Protocol – D channel) message statistics.

RTRV-PM-LAPD lets the user retrieve the number of times LAPD (Link Access Protocol – D channel) message types have been transmitted or received since the counters were last initialized.

Category: Signaling **Security:** NSA for INIT-REG, View for RTRV-PM

Input Formats:

```
INIT-REG-LAPD:[TID]:<lapdAid>:[CTAG]::[<montype>],
   [<monval>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

```
RTRV-PM-LAPD:[TID]:<lapdAid>:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<lapdAid>:<montype>,<monval>,[<vldty>],[<locn>],
      [<dirn>],[<tmper>],[<mondat>],[<montm>]"
;
```

Parameters:

lapdAid Identifies the AID as an LAPD interface and link.

Type: lapdAid
Range: GR303EOC-{1-32767}-{1-28}
GR303TMC-{1-32767}-{1-32767}
ISDN-{1-32767}-{1-32767}
IUA-IOM-{1-17}-PORT-{1-28}
IUA-IOM-{1-17}-STS1-{1-8}-PORT-{1-28}
IUA-IOM-{1-17}-T3-{1-8}-PORT-{1-28}
Default value: none

montype Identifies the type of monitored LAPD parameter.

Type: enum
Range: ALL = All types
DISCRX = Number of disconnect frames received
DISCTX = Number of disconnect frames transmitted
DMRX = Number of disconnect mode frames received
DMTX = Number of disconnect mode frames transmitted
FRMR = Number of frame reject errors
FRMRRX = Number of frame reject errors received
FRMRTX = Number of frame reject frames transmitted
INVRX = Number of invalid frames received
IRX = Number of information frames received
ITX = Number of information frames transmitted
REJRX = Number of reject frames received
REJTX = Number of reject frames transmitted
RNRRX = Number of receive not ready frames received
RNRTX = Number of receive not ready frames transmitted
RRRX = Number of receive ready frames received
RRTX = Number of receive ready frames transmitted
SABMERR = Number of set asynchronous balanced mode errors
SABMRX = Number of set asynchronous balanced mode frames received
SABMTX = Number of set asynch balanced mode frames transmitted
UARX = Number of unnumbered acknowledge frames received
UATX = Number of unnumbered acknowledge frames transmitted
UIRX = Number of unnumbered information frames received
UITX = Number of unnumbered information frames transmitted
XIDRX = Number of exchange ID frames received
XIDTX = Number of exchange ID frames transmitted
Default value: ALL

monnval Identifies the value to which the counters identified by montype are to be initialized or the measured value of the monitored parameter. The value is in the form of numeric counts or rates. The value is "0" if the value of *montype* is "ALL". This parameter is presently not supported; leave it blank.

Type: integer
Range: {0-2147483647}
Default value: 0

monlev Identifies (in RTRV-PM input) the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

vldty Identifies (in RTRV-PM output) the validity of the monitored interval. This parameter is presently not supported; its value will always be "NULL".

Type: enum
Range: ADJ = Data manually adjusted or initialized
COMPL = Data accumulated over the entire time period
LONG = Data accumulated over greater than the entire time period
NA = Data not available
PRTL = Data accumulated over a portion of the time period
Default value: 1-UP

locn Identifies the location of the storage counters to be initialized or from which to retrieve performance data. Currently only NEND is supported.

Type: enum
Range: NEND = near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters. This parameter is presently not supported; leave it blank.

Type: enum
Range: BTH = Both directions
RCV = Receive direction only
TRMT = Transmit direction only
Default value: BTH

tmper The accumulation period for performance counters. The only values currently allowed for *tmper* are “15-MIN” and “24-HR”. This parameter is presently not supported; leave it blank.

Type: enum
Range: {1}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)
Default value: 15-MIN

mondat Identifies the monitored date. The value Identifies the beginning date for the performance-monitoring or storage register period defined by *tmper*. The format is MM-DD. This parameter is presently not supported; leave it blank.

Type: enum
Range: {1-12}-{1-31}
Default value: current date

montm Identifies the monitored time. The value Identifies the beginning time of day for the performance-monitoring or storage register period defined by *tmper*. The format is HH-MM. This parameter is presently not supported; leave it blank.

Type: enum
Range: {0-23}-{0-59}
Default value: current time

Input Examples:

```
INIT-REG-LAPD::ISDN-1-1;
RTRV-PM-LAPD::ISDN-1-1;
```

Output Example:

```
    lucent 2005-05-15 14:37:49
M  0 COMPLD
   "ISDN-1-1:ITX,187363"
   "ISDN-1-1:RRTX,140547"
   "ISDN-1-1:RNRTX,0"
   "ISDN-1-1:REJTX,23"
   "ISDN-1-1:SABMTX,2"
   "ISDN-1-1:DISCTX,0"
   "ISDN-1-1:UATX,1"
   "ISDN-1-1:DMTX,0"
   "ISDN-1-1:FRMRTX,0"
   "ISDN-1-1:XIDTX,0"
   "ISDN-1-1:UITX,0"
   "ISDN-1-1:IRX,140554"
   "ISDN-1-1:RRRX,187357"
   "ISDN-1-1:RNRRX,0"
   "ISDN-1-1:REJRX,6"
   "ISDN-1-1:SABMRX,1"
   "ISDN-1-1:DISCRX,0"
   "ISDN-1-1:UARX,1"
   "ISDN-1-1:DMRX,0"
   "ISDN-1-1:FRMRRX,0"
   "ISDN-1-1:XIDRX,0"
   "ISDN-1-1:UIRX,0"
   "ISDN-1-1:INVRX,0"
   "ISDN-1-1:SABMERR,0"
   "ISDN-1-1:FRMRERR,0"
;
```

Related Commands: none

RTRV-STATS-ISDNMSG

Command:

RTRV-STATS-ISDNMSG: Retrieve Statistics ISDN Message

Description:

RTRV-STATS-ISDNMSG lets the user retrieve ISDN message statistics. Use this command to retrieve the total number of the various ISDN messages transmitted and received, and the last transmitted and received cause and diagnostic codes.

Category: Signaling **Security:** View

Input Format:

```
RTRV-STATS-ISDNMSG:[TID]:<isdnIfNum>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<isdnIfNum>:ALRTGMSGTX=<alrtgMsgTx>,
      CALLPROCMSGTX=<callProcMsgTx>,
      CNTMSGTX=<cntMsgTx>,CNTACKMSGTTX=<cntAckMsgTx>,
      PROGMSGTTX=<progMsgTx>,SETUPMSGTTX=<setupMsgTx>,
      SETUPACKMSGTX=<setupAckMsgTx>,
      RESMSGTTX=<resmMsgTx>,
      RESACKMSGTTX=<resmAckMsgTx>,
      RESREJMSGTTX=<resmRejMsgTx>,SUSMSGTX=<susMsgTx>,
      SUSPACKMSGTX=<susAckMsgTx>,
      SUSPREJMSGTX=<susRejMsgTx>,
      USRINFOMSGTX=<usrInfoMsgTx>,HLDMSGTX=<hldMsgTx>,
      HLDACKMSGTX=<hldAckMsgTx>,
      HLDREJMSGTX=<hldRejMsgTx>,RTRVMSGTX=<rtrvMsgTx>,
      RTRVACKMSGTX=<rtrvAckMsgTx>,
      RTRVREJMSGTX=<rtrvRejMsgTx>,
      DSCNTMSGTX=<dscntMsgTx>,RELMSGTX=<relMsgTx>,
      RELCMPLMSGTX=<relCmplMsgTx>,
      RESTRTMSGTX=<restrtMsgTx>,
      RESTRTACKMSGTX=<restrtAckMsgTx>,
      SGMTMSGTX=<sgmtMsgTx>,
      CNGSTNCTRLMSGTX=<cngstnCtrlMsgTx>,
      INFOMSGTX=<infoMsgTx>,NTFYMSGTX=<ntfyMsgTx>,
      STATUSMSGTX=<statusMsgTx>,
```

```
        STATUSENQMSGTX=<statusEnqMsgTx>,
        SRVMSGTX=<srvMsgTx>,SRVACKMSGTX=<srvAckMsgTx>,
        FACMSGTX=<facMsgTx>,FACACKMSGTX=<facAckMsgTx>,
        FACREJMSGTX=<facRejMsgTx>,REGMSGTX=<regMsgTx>,
        ALRTGMSGRX=<alrtgMsgRx>,
        CALLPROCMSGRX=<callProcMsgRx>,
        CNTMSGRX=<cntMsgRx>,CNTACKMSGRX=<cntAckMsgRx>,
        PROGMSGRX=<progMsgRx>,SETUPMSGRX=<setupMsgRx>,
        SETUPACKMSGRX=<setupAckMsgRx>,
        RESMSGRX=<resMsgRx>,RESACKMSGRX=<resAckMsgRx>,
        RESREJMSGRX=<resRejMsgRx>,SUSMSGRX=<susMsgRx>,
        SUSPACKMSGRX=<susAckMsgRx>,
        SUSPREJMSGRX=<susRejMsgRx>,
        USRINFOMSGRX=<usrInfoMsgRx>,HLDMSGRX=<hldMsgRx>,
        HLDACKMSGRX=<hldAckMsgRx>,
        HLDREJMSGRX=<hldRejMsgRx>,RTRVMSGRX=<rtrvMsgRx>,
        RTRVACKMSGRX=<rtrvAckMsgRx>,
        RTRVREJMSGRX=<rtrvRejMsgRx>,
        DSCNTMSGRX=<dscntMsgRx>,RELMSGRX=<relMsgRx>,
        RELCMPLMSGRX=<relCmplMsgRx>,
        RESTRTMSGRX=<restrtMsgRx>,
        RESTRTACKMSGRX=<restrtAckMsgRx>,
        SGMTMSGRX=<sgmtMsgRx>,
        CNGSTNCTRLMSGRX=<cngstnCtrlMsgRx>,
        INFOMSGRX=<infoMsgRx>,NTFYMSGRX=<ntfyMsgRx>,
        STATUSMSGRX=<statusMsgRx>,
        STATUSENQMSGRX=<statusEnqMsgRx>,
        SRVMSGRX=<srvMsgRx>,SRVACKMSGRX=<srvAckMsgRx>,
        FACMSGRX=<facMsgRx>,FACACKMSGRX=<facAckMsgRx>,
        FACREJMSGRX=<facRejMsgRx>,REGMSGRX=<regMsgRx>,
        CNTS=<cnts>,DISCNTS=<discnts>,
        AVGNUMOPENCLS=<avgNumOpenCls>,
        LSTTXCAUSECDE=<lstTxCauseCd>,
        LSTTSDIAGCDE=<lstTxDiagCd>,
        LSTRXCAUSECDE=<lstRxCauseCd>,
        LSTRXDIAGCDE=<lstRxDiagCd>"
;
```

Parameters:

isdnIfNum Identifies the AID as an ISDN interface. *isdnIfNum* must not be null.

Type: IsdnIfNum
Range: {1-32767}
Default value: none

alrtgMsgTx Identifies the total number of alerting messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

callProcMsgTx Identifies the total number of call proceeding messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cntMsgTx Identifies the total number of connect messages transmitted.

Range: {0 – 4,294,967,295}

cntAckMsgTx Identifies the total number of connect acknowledge messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

progMsgTx Identifies the total number of progress messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

setupMsgTx Identifies the total number of setup messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

setupAckMsgTx Identifies the total number of setup acknowledge messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

resMsgTx Identifies the total number of resume messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

resAckMsgTx Identifies the total number of resume acknowledge messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

resRejMsgTx Identifies the total number of resume reject messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

suspMsgTx Identifies the total number of suspend messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

suspAckMsgTx Identifies the total number of suspend acknowledge messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

suspRejMsgTx Identifies the total number of suspend reject messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

usrInfoMsgTx Identifies the total number of user information messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

hldMsgTx Identifies the total number of hold messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

hldAckMsgTx Identifies the total number of hold acknowledge messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

hldRejMsgTx Identifies the total number of hold reject messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

rtrvMsgTx Identifies the total number of retrieve messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

rtrvAckMsgTx Identifies the total number of retrieve acknowledge messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

rtrvRejMsgTx Identifies the total number of retrieve reject messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

dscntMsgTx Identifies the total number of disconnect messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

relMsgTx Identifies the total number of release messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

relCmplMsgTx Identifies the total number of release complete messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

restrtMsgTx Identifies the total number of restart messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

restrtAckMsgTx Identifies the total number of restart acknowledge messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

sgmtMsgTx Identifies the total number of segment messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cngstnCtrlMsgTx Identifies the total number of congestion control messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

infoMsgTx Identifies the total number of information messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

ntfyMsgTx Identifies the total number of notify messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

statusMsgTx Identifies the total number of status messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

statusEnqMsgTx Identifies the total number of status enquiry messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

srvMsgTx Identifies the total number of service messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

srvAckMsgTx Identifies the total number of service acknowledge messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

facMsgTx Identifies the total number of facility messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

facAckMsgTx Identifies the total number of facility acknowledge messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

facRejMsgTx Identifies the total number of facility reject messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

regMsgTx Identifies the total number of register messages transmitted.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

alrtgMsgRx Identifies the total number of alerting messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

callProcMsgRx Identifies the total number of call proceeding messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cntMsgRx Identifies the total number of connect messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cntAckMsgRx Identifies the total number of connect acknowledge messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

progMsgRx Identifies the total number of progress messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

setupMsgRx Identifies the total number of setup messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

setupAckMsgRx Identifies the total number of setup acknowledge messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

resMsgRx Identifies the total number of resume messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

resAckMsgRx Identifies the total number of resume acknowledge messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

resRejMsgRx Identifies the total number of resume reject messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

suspMsgRx Identifies the total number of suspend messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

suspAckMsgRx Identifies the total number of suspend acknowledge messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

suspRejMsgRx Identifies the total number of suspend reject messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

usrInfoMsgRx Identifies the total number of user information messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

hldMsgRx Identifies the total number of hold messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

hldAckMsgRx Identifies the total number of hold acknowledge messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

hldRejMsgRx Identifies the total number of hold reject messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

rtrvMsgRx Identifies the total number of retrieve messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

rtrvAckMsgRx Identifies the total number of retrieve acknowledge messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

rtrvRejMsgRx Identifies the total number of retrieve reject messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

dscntMsgRx Identifies the total number of disconnect messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

relMsgRx Identifies the total number of release messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

relCmplMsgRx Identifies the total number of release complete messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

restrtMsgRx Identifies the total number of restart messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

restrtAckMsgRx Identifies the total number of restart acknowledge messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

sgmtMsgRx Identifies the total number of segment messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cngstnCtrlMsgRx Identifies the total number of congestion control messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

infoMsgRx Identifies the total number of information messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

ntfyMsgRx Identifies the total number of notify messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

statusMsgRx Identifies the total number of status messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

statusEnqMsgRx Identifies the total number of status enquiry messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

srvMsgRx Identifies the total number of service messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

srvAckMsgRx Identifies the total number of service acknowledge messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

facMsgRx Identifies the total number of facility messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

facAckMsgRx Identifies the total number of facility acknowledge messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

facRejMsgRx Identifies the total number of facility reject messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

regMsgRx Identifies the total number of register messages received.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cnts Identifies the total number of connects.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

discnts Identifies the total number of disconnects.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

avgNumOpenCalls Identifies the average number of open calls.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

lstTxCauseCde Identifies the last transmitted cause code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

lstTxDiagCde Identifies the last transmitted diagnostic code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

lstRxCauseCde Identifies the last received cause code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

lstRxDiagCde Identifies the last received diagnostic code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

Input Example:

```
RTRV-STATS-ISDNMSG::14;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "14:ALRTGMSGTX=0,CALLPROCMSGTX=0,CNTMSGTX=0,
      CNTACKMSGTTX=0,PROGMSGTTX=0,SETUPMSGTTX=0,
      SETUPACKMSGTX=0,RESMSGTTX=0,RESACKMSGTTX=0,
      RESREJMSGTTX=0,SUSMSGTX=0,SUSPACKMSGTX=0,
      SUSPREJMSGTX=0,USRINFOMSGTX=0,HLDMSGTX=0,
      HLDACKMSGTX=0,HLDREJMSGTX=0,RTRVMSGTX=0,
      RTRVACKMSGTX=0,RTRVREJMSGTX=0,DSCNTMSGTX=0,
      RELMSGTX=0,RELCMPLMSGTX=0,RESTRTMSGTX=0,
      RESTRTACKMSGTX=0,SGMTMSGTX=0,CNGSTNCTRLMSGTX=0,
      INFOMSGTX=0,NTFYMSGTX=0,STATUSMSGTX=0,
      STATUSENQMSGTX=0,SRVMSGTX=0,SRVACKMSGTX=0,
      FACMSGTX=0,FACACKMSGTX=0,FACREJMSGTX=0,
      REGMSGTX=0,ALRTGMSGRX=0,CALLPROCMSGRX=0,
      CNTMSGRX=0,CNTACKMSGRX=0,PROGMSGRX=0,
      SETUPMSGRX=0,SETUPACKMSGRX=0,RESMSGRX=0,
      RESACKMSGRX=0,RESREJMSGRX=0,SUSMSGRX=0,
      SUSPACKMSGRX=0,SUSPREJMSGRX=0,USRINFOMSGRX=0,
      HLDMSGRX=0,HLDACKMSGRX=0,HLDREJMSGRX=0,
      RTRVMSGRX=0,RTRVACKMSGRX=0,RTRVREJMSGRX=0,
      DSCNTMSGRX=0,RELMSGRX=0,RELCMPLMSGRX=0,
      RESTRTMSGRX=0,RESTRTACKMSGRX=0,SGMTMSGRX=0,
      CNGSTNCTRLMSGRX=0,INFOMSGRX=0,NTFYMSGRX=0,
      STATUSMSGRX=0,STATUSENQMSGRX=0,SRVMSGRX=0,
      SRVACKMSGRX=0,FACMSGRX=0,FACACKMSGRX=0,
      FACREJMSGRX=0,REGMSGRX=0,CNTS=0,DISCNTS=0,
      AVGNUMOPENCLS=0,LSTTXCAUSECDE=0,LSTTSDIAGCDE=0,
      LSTRXCAUSECDE=0,LSTRXDIAGCDE=0"
;
```

Related Commands:

INIT-REG-ISDNMSG RTRV-PM-ISDNMSG

RTRV-STATUS-ISDNBCHAN

Command:

RTRV-STATUS-ISDNBCHAN: Retrieve Status ISDN B-Channel

Description:

RTRV-STATUS-ISDNBCHAN retrieves the current state of specified ISDN B channels on a link.

Category: Signaling **Security:** View

Input Format:

```
RTRV-STATUS-ISDNBCHAN:[TID]:<isdnBcStaChanId>:[CTAG]::
   [<numChans>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<isdnBcStaChanId>:<primaryState>,
   [<secondaryState>]"
;
```

Parameters:

isdnBcStaChanId Identifies the first in the range of ISDN B channels for which to retrieve the current state. The first field in the range represents the ISDN interface, the second field represents the ISDN link, and the third represents the channel. A null value for the second field in the AID is equivalent to "ALL"; that is, by leaving the field blank, information for all ISDN B channels on all links on the specified interface will be returned. A null value for the third field in the AID is equivalent to “ALL”; that is, by leaving the field blank, information for all ISDN B channels on the specified link on the specified interface will be returned.

Type: isdnBcStaChannelStateAid
Range: {1-32767}[-{1-32767}[-{1-24}]]
Default value: none

numChans Identifies the number of ISDN B channels on the link following, and including, the channel defined by *isdnBcStaChanId*, for which to retrieve the current state.

Type: integer
Range: {1-24}
Default value: 1

primaryState Identifies the primary state of the ISDN B channel in the Telcordia standard form of "primary state – primary state qualifier".

Type: enum
Range: IS-NR = In Service, Normal
OOS = Out of Service
OOS-AU = Out of Service, Autonomous
OOS-MA = Out of Service, Management
OOS-AUMA = Out of Service, Autonomous and Management
Default value: none

secondaryState Identifies the secondary state of the ISDN B channel.

Type: enum

Range: BLKD = Blocked. In combination with OOS-AU, Identifies that the B-channel is OOS at the far end. In combination with OOS-MA, Identifies that the B-channel has been put OOS, although the IOM is IS.

BUSY = Bearer channel carrying traffic.

DCHL = D-channel. In combination with OOS-AU, Identifies that the B-channel is OOS because the D-channel is OOS.

DSBLD = Disabled. In combination with OOS-MA, Identifies that the B-channel has been disabled by management, although the IOM is IS.

IDLE = Bearer channel available to carry traffic.

NOTBCHAN = Not a B-channel. In combination with OOS-MA, Identifies that the specified B-channel is not recognized as a B-channel, although the IOM is IS.

RSTRQD = Reset Required. In combination with OOS, Identifies an inconsistent or unexpected state that may require resetting the channel at either end, or locally resetting the IOM port.

SGEO = Supporting Entity Out of Service. In combination with OOS-AU, Identifies that the B-channel is OOS because the IOM port is OOS. In combination with OOS-AUMA, Identifies that the B-channel has been put OOS and the IOM port is OOS.

UAS = Unassigned. In combination with OOS-MA, Identifies that the B-channel is unprovisioned and unequipped, and the IOM is OOS.

Default value: none

Input Example:

```
RTRV-STATUS-ISDNBCHAN::14-12-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "14-12-1:IS-NR,ACT"
;
```

Related Commands: none

SW-TOPROTN-ISDN

Command:

SW-TOPROTN-ISDN: Switch To Protection ISDN

Description:

SW-TOPROTN-ISDN instructs the switch to perform a protection switch; i.e., to initiate a fail-over of the D-channel on an NFAS interface to the backup signaling link used for the NFAS interface. This command is only valid for NFAS interfaces with backup D-channels, and will succeed if both the primary and secondary D-channels on the specified interface are in the "UP" state (i.e., the command is valid only when the value of *sst* in the RTRV-ISDN-IF output is either "PRIACT" or "SECACT").

Category: Signaling **Security:** SA

Input Format:

```
SW-TOPROTN-ISDN:[TID]:<ifNum>:[CTAG];
```

Output Format: none

Parameters:

ifNum Identifies the AID as an ISDN interface.

Type: IsdnIfNum
Range: {1-32767}
Default value: none

Input Example:

```
SW-TOPROTN-ISDN::1;
```

Related Commands: none

RTRV-ATTR-LOG / SET-ATTR-LOG

Commands:

RTRV-ATTR-LOG: Retrieve Attribute Log

SET-ATTR-LOG: Set Attribute Log

Descriptions:

RTRV-ATTR-LOG lets the user retrieve the current attributes for an existing log in the switch. Use it to review these attributes prior to making changes with the SET-ATTR-LOG command. These attributes govern how many, how long, and what kinds of messages are logged.

SET-ATTR-LOG lets the user set the attributes associated with a message log in the switch. If an associated log already exists, the new values specified by the command replace the previous values. The switch also logs execution of this command.

Category: Log **Security:** NSA for SET, View for RTRV

Input Formats:

```
RTRV-ATTR-LOG:[TID]:[<log_id>]:[CTAG]::[<lognm>];
SET-ATTR-LOG:[TID]:[<log_id>]:[CTAG]::<lognm>,
   [<clrlog>],[<maxmsg>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<lognm>,[<maxmsg>]"
;
```

Parameters:

log_id Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

lognm Identifies the name of a log for which to set or retrieve log attributes. The call capture (CALLCAPT) and call capture verbose (CALLCAPTV) logs are not included in the set of values for RTRV as they have no retrievable attributes. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the maximum number of messages for all logs will be returned.

Type: enum
Range: AO = autonomous output log – All autonomous message output (a subset of the system log)
BKUP = backup log – All output from running backup scripts (success/failure messages, error messages, etc.)
BULK = bulk download log – All output from EXEC-BULK-DOWNLOAD
CALLCAPT = call capture log – All records of in-progress calls for which capture sessions have been initiated with the ENT-CALL-CAPT command
CALLCAPTV = call capture verbose log – All records of in-progress calls for which capture sessions have been initiated with the ENT-CALL-CAPTVERBOSE command
FRAUD = fraud calls log – All records of calls designated as fraudulent
MSG = messages log – All TL1 commands entered into the system
SEC = security log – All logins, logouts, failed login attempt messages, etc.
SECBKUP = security backup log – All logins, logouts, failed login attempt messages, etc.
SYS = system log – All system messages (processes started, alarms, events, informational messages, etc.)
Default value: none

clrlog Controls the clearing of the log. There is no implementation difference between the values “CLR” and “DLT” to the TL1 user; both values delete the entire log file.

Type: enum
Range: CLR = Clear log
DLT = Delete log
NOCLR = Don’t clear log
Default value: NOCLR

maxmsg Identifies the maximum number of messages to be logged. The patch (PATCH), bulk download (BULK), and call capture (CALLCAPT) logs can each have only a single message that contains the contents of the log file for the most recent patch install attempt or capture session.

Type: integer
Range: {1-9999}
Default value: 1000 for autonomous output log (AO)
1000 for messages log (MSG)
400 for security log (SEC)
1000 for system log (SYS)

Input Examples:

```
RTRV-ATTR-LOG;
```

```
SET-ATTR-LOG::COM:::MSG,NOCLR,1000;
```

Output Example:

```
   LUCENT 2004-10-29 14:37:49
M  0 COMPLD
   "SYS,500"
   "MSG,1000"
   "AO,1000"
   "SEC,400"
;
```

Related Commands:

RTRV-LOG

RTRV-LOG

Command:

RTRV-LOG: Retrieve Log

Description:

RTRV-LOG lets the user retrieve the contents of one of the logs.

Category: Log **Security:** View

Input Format:

```
RTRV-LOG:[TID]:[<log_id>]:[CTAG]::<lognm>;
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   /*
   "<free-format-text log message 1>"
   "<free-format-text log message 2>"
   "<free-format-text log message 3>"
    .
    .
    .
   "<free-format-text log message n>"
   */
;
```

Parameters:

log_id Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

lognm Identifies the name of a log for which to retrieve the contents.

Type: enum
Range: AO = autonomous output log – All autonomous message output (a subset of the system log)
BKUP = backup log – All output from running backup scripts (success/failure messages, error messages, etc.)
BULK = bulk download log – All output from EXEC-BULK-DOWNLOAD
CALLCAPT = call capture log – All records of in-progress calls for which capture sessions have been initiated with the ENT-CALL-CAPT command
CALLCAPTV = call capture verbose log – All records of in-progress calls for which capture sessions have been initiated with the ENT-CALL-CAPTVERBOSE command
FRAUD = fraud calls log – All records of calls designated as fraudulent
MSG = messages log – All TL1 commands entered into the system
SEC = security log – All logins, logouts, failed login attempt messages, etc.
SECBKUP = security backup log – All logins, logouts, failed login attempt messages, etc.
SYS = system log – All system messages (processes started, alarms, events, informational messages, etc.)
Default value: none

Note: There are no output parameters – The normal response is the standard response block and the contents of the specified log.

Input Example:

```
RTRV-LOG:::::MSG;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   /*
   "2004-10-29 11:49:01:lucent:rtrv-eqpt"
   "2004-10-29 11:49:28:lucent:rtrv-ss7-trk::1"
   "2004-10-29 11:54:22::act-user::lucent:::******"
   "2004-10-29 11:54:35:lucent:rtrv-log:::::sec"
   */
;
```

Related Commands:

RTRV/SET-ATTR-LOG

CANC/DLT/ED/ENT/RTRV-USER-SECU

Commands:

CANC-USER-SECU: Cancel User Security

DLT-USER-SECU: Delete User Security

ED-USER-SECU: Edit User Security

ENT-USER-SECU: Enter User Security

RTRV-USER-SECU: Retrieve User Security

Descriptions:

CANC-USER-SECU lets an administrator terminate a user's existing TL1 session. The AID block contains the user identifier.

DLT-USER-SECU lets an administrator remove a user. The AID block contains the user identifier.

ED-USER-SECU allows an administrator to edit a user's access privileges, password, or password properties. The AID block contains the user identifier. Use this command to change the user's password, access privilege, password aging interval, password update grace period, time out interval, and whether the user is allowed to execute commands related to CALEA.

ENT-USER-SECU allows an administrator to add a user account. The AID block contains the user identifier. Use this command to set the user's password, access privilege, password aging interval, password update grace period, time out interval, and whether the user is allowed to execute commands related to CALEA.

RTRV-USER-SECU lets an administrator retrieve the privilege/security parameters of one or more users. It does not return users' passwords. Only an administrator may invoke the general version of this command.

Category: Security **Security:** ADMIN for all commands

Input Formats:

```
CANC-USER-SECU:[TID]:<uid>:[CTAG];

DLT-USER-SECU:[TID]:<uid>:[CTAG];

ED-USER-SECU:[TID]:<uid>:[CTAG]::[<pid>],[<cid>],
   [<uap>]:[PAGE=<page>],[PCND=<pcnd>],
   [TMOUT=<tmout>],[CALEA=<calea>];

ENT-USER-SECU:[TID]:<uid>:[CTAG]::<pid>,<cid>,<uap>:
   [PAGE=<page>],[PCND=<pcnd>],[TMOUT=<tmout>],
   [CALEA=<calea>];

RTRV-USER-SECU:[TID]:[<uid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<uid>:<uap>:[PAGE=<page>],[PCND=<pcnd>],
      [TMOUT=<tmout>],[CALEA=<calea>]"
;
```

Parameters:

uid Identifies the user. The UID is the user ID or login name.

Type: string
Range: 8 – 16 alphanumeric characters
Default value: none

pid Identifies the user's initial password, which should contain at least one number and one letter.

Type: string
Range: 8 – 16 alphanumeric characters
Default value: none

cid Identifies the channel. This parameter is presently not supported; leave it blank for ED. For ENT, however, you must enter a value of any alphanumeric string up to 20 characters or the command will fail.

Type: string
Range: up to 20 alphanumeric characters
Default value: none

uap Identifies the user's access privilege. The values in the range are defined in descending order of security. Higher levels include lower levels.

Type: enum
Range: ADMIN = Administrative permits the user to perform all TL1 commands including managing user accounts or profiles and downloading new software.

SW = SoftWare, in addition to all commands with security levels SA, NSA, and VIEW, allows the user to issue commands to download software. This level of access security applies to the System command CPY-MEM and all OS Access System commands.

SA = Service-Affecting, in addition to all commands with security levels NSA and VIEW, allows the user to issue service-affecting commands. This level applies to DSFacility, Equipment, Signalling, and Test commands, and System command ED-DAT.

NSA = Non-Service-Affecting, in addition to all commands with security level VIEW, allows the user to issue non-service-affecting commands. This level applies to Log commands, System commands (excepting CPY-MEM and ED-DAT), and Facility commands INIT-REG, ALW/INH/SCHED-PMREPT, and SET-TH.

VIEW = VIEW allows the user to issue RTRV commands (except RTRV-IPHOST-SECU and RTRV-USER-SECU, which are ADMIN level) to view the switch's status and statistics information. This lowest level of access security also applies to ACT-USER (to log on), CANC-USER (to log off), ED-PID (with which users can change their passwords), and to REPT autonomous messages.

Default value: none

page Indicates the password aging interval, in days. At the end of the interval the password expires and the user receives a prompt to replace the existing password. When greater than zero, *page* forces users to change their passwords. This limits the time in which an intruder who has learned a username/password pair can use that account. Setting the value of *page* to "0" makes the password perpetual. For typical long-term users, *page* is generally set to a value much greater than *passwdChgFreq* (set in ED-SYS-SECU). However, temporary users, who will have access for a period less than the value of *passwdChgFreq* and who must change passwords only on first use, can have values of *page* smaller than that set for *passwdChgFreq*.

Type: enum
Range: {0-999}, typically 45 to 60
Default value: 90

pcnd Indicates the number of days that a user can use the existing password after the password aging interval has elapsed before an update is mandatory.

Type: enum
Range: {0-999}, typically 7
Default value: 7

tmout Identifies the time out interval in minutes. If there are no messages between the user and the switch over the *tmout* interval, the session is logged off.

Type: enum
Range: {0-99}
Default value: 30

calea Identifies whether the user is allowed to execute commands related to CALEA (Communications Assistance to Law Enforcement Act). The user must already have an access privilege level of "SA" or higher.

Type: BoolYN
Range: Y = Enabled
N = Disabled
Default value: N

Input Examples:

```
CANC-USER-SECU::JOHNUSER;

DLT-USER-SECU::JOHNUSER;

ED-USER-SECU::JOHNUSER:::LUCENT,,VIEW:PAGE=90,PCND=7,
   TMOUT=30,CALEA=N;

ENT-USER-SECU::JOHNUSER:::LUCENT,NULL,VIEW:PAGE=90,
   PCND=7,TMOUT=30,CALEA=N;

RTRV-USER-SECU::JOHNUSER;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "JOHNUSER:VIEW:PAGE=45,PCND=7,TMOUT=30,CALEA=N"
;
```

Related Commands:

```
ED-PID
```

DLT-ALMQ

Command:

DLT-ALMQ: Delete Alarm Queue

Description:

DLT-ALMQ allows an administrator to remove the alarm queuing session identified by the AID from the list of active alarm queuing sessions. Alarm queuing for the session is immediately disabled and alarm queuing resources are discarded.

Category: Security **Security:** ADMIN

Input Format:

```
DLT-ALMQ:[TID]:<almqSessionId>:[CTAG];
```

Output Format: none

Parameters:

almqSessionId Identifies the AID as the alarm queuing session to delete from the list of active alarm queuing sessions. *almqSessionID* is the hexadecimal representation of the IP address of the machine connecting to the alarm queue port, and can be determined by issuing the RTRV-STATUS-ALMQ command.

Type: AlmqSessionId
Range: up to eight hexadecimal characters
Default value: none

Input Example:

```
DLT-ALMQ::a0a0002;
```

Related Commands:

ED/RTRV-SYS-SECU RTRV-STATUS-ALMQ

DLT/ENT/RTRV-IPHOST-SECU

Commands:

DLT-IPHOST-SECU: Delete IPHOST Security

ENT-IPHOST-SECU: Enter IPHOST Security

RTRV-IPHOST-SECU: Retrieve IPHOST Security

Descriptions:

DLT-IPHOST-SECU allows an administrator to remove IP addresses from the list of addresses representing trusted hosts; that is, hosts that may connect to the switch.

ENT-IPHOST-SECU allows an administrator to create a list of IP addresses representing trusted hosts; that is, hosts that may connect to the switch.

RTRV-IPHOST-SECU allows an administrator to retrieve a list of IP addresses representing trusted hosts; that is, hosts that may connect to the switch.

Category: Security **Security:** ADMIN for all commands

Input Formats:

```
DLT-IPHOST-SECU:[TID]:[<com>]:[CTAG]::<ipHosts>;
ENT-IPHOST-SECU:[TID]:[<com>]:[CTAG]::<ipHosts>;
RTRV-IPHOST-SECU:[TID]:[<com>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<com>:[<ipHosts>]"
;
```

Parameters:

com Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

iphosts Identifies the trusted hosts (up to 250) to connect to or disconnect from the switch. Multiple trusted host addresses are separated by ampersands.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}&
{0-255}.{0-255}.{0-255}.{0-255}&…&
{0-255}.{0-255}.{0-255}.{0-255}
Default value: none

Input Examples:

```
DLT-IPHOST-SECU:::::
   192.168.0.204&192.168.0.207&192.168.0.208;

ENT-IPHOST-SECU:::::
   192.168.0.204&192.168.0.207&192.168.0.208;

RTRV-IPHOST-SECU;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:192.168.0.204&192.168.0.207&192.168.0.208"
;
```

Related Commands:

```
ED/RTRV-SYS-SECU
```

ED-PID

Command:

ED-PID: Edit Password

Description:

ED-PID allows users to change their passwords. Users must issue ED-PID after their initial log-ins to create encrypted passwords known only to them. Only users with Admin privilege can enter another user's identification and access changes.

Category: Security **Security:** View

Input Format:

```
ED-PID:[TID]:<uid>:[CTAG]::<oldpid>,<newpid>;
```

Output Format: none

Parameters:

uid Identifies the user. The UID is the user ID or login name.

Type: string
Range: 8 – 16 characters
Default value: none

oldpid Identifies the user's old password, which should contain at least one number and one letter.

Type: string
Range: 8 – 16 characters
Default value: none

newpid Identifies the user's new password, which should contain at least one number and one letter. The system prevents the user from reusing the most recently used five passwords (or the current password) when selecting a new password.

Type: string
Range: 8 – 16 characters
Default value: none

Input Example:

```
ED-PID::JOHNUSER:::1OLDPASSWORD,1NEWPASSWORD;
```

Related Commands:

DLT/ED/ENT/RTRV-USER-SECU

ED/RTRV-SYS-SECU

Commands:

ED-SYS-SECU: Edit System Security

RTRV-SYS-SECU: Retrieve System Security

Descriptions:

ED-SYS-SECU allows an administrator to edit security parameters associated with the switch. Use this command to set the maximum allowable number of invalid session setup attempts, the alert condition duration, the time out intervals, the period in which to generate a password expiration alert message, the lower limit for the password aging interval, the heartbeat interval, whether the TCP connection and trusted hosts are enabled, the assigned ports for alarm queue sessions and the Element Manager, the maximum elapsed time for a user to reconnect to the TL1 agent after an alarm queue session disconnect, the IP address for the Element Manager, whether secure shell is enabled, and the allowed interval between reported TL1 events or alarms.

RTRV-SYS-SECU allows a user to retrieve security parameters associated with the switch. Use this command to retrieve the maximum allowable number of invalid session setup attempts, the alert condition duration, the time out intervals, the period in which to generate a password expiration alert message, the lower limit for the password aging interval, whether the TCP connection and trusted hosts are enabled, the assigned port for alarm queue sessions and the Element Manager, the maximum elapsed time for a user to reconnect to the TL1 agent after an alarm queue session disconnect, the IP address for the Element Manager, whether secure shell is enabled, and the allowed interval between reported TL1 events or alarms.

Category: Security **Security:** ADMIN for all commands

Input Formats:

```
ED-SYS-SECU:[TID]:[<src>]:[CTAG]::[MAXINV=<maxInv>],
   [DURAL=<dural>],[TMOUT=<tmout>],
   [PRELOGINTIMEOUT=<preLoginTimeOut>],
   [PASSWDEXPALERT=<passwdExpAlert>],
   [PASSWDCHGFREQ=<passwdChgFreq>],
   [HEARTBEAT=<heartbeat>],
   [TCPCONNENABLED=<tcpConnEnabled>],
   [TRUSTEDHOSTENABLED=<trustedHostEnabled>],
   [ALMQPORT=<almqPort>],[ALMQTMO=<almqTmo>],
   [EMPORT=<emPort>],[EM1IP=<em1Ip>],[EM2IP=<em2Ip>],
   [SSHENABLED=<sshEnabled>],
   [EVENTINTERVAL=<eventInterval>];

RTRV-SYS-SECU:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:MAXINV=<maxInv>,DURAL=<dural>,
      TMOUT=<tmout>,PRELOGINTIMEOUT=<preLoginTimeOut>,
      PASSWDEXPALERT=<passwdExpAlert>,
      PASSWDCHGFREQ=<passwdChgFreq>,
      HEARTBEAT=<heartbeat>,
      TCPCONNENABLED=<tcpConnEnabled>,
      TRUSTEDHOSTENABLED=<trustedHostEnabled>,
      ALMQPORT=<almqPort>,ALMQTMO=<almqTmo>
      EMPORT=<emPort>,EM1IP=<em1Ip>,EM2IP=<em2Ip>,
      SSHENABLED=<sshEnabled>,
      EVENTINTERVAL=<eventInterval>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

maxInv Identifies the maximum number of invalid session setup attempts allowed (such as illegal user IDs or passwords) before an intrusion attempt is suspected and alert messages are generated. The factory default is “3”.

Type: enum
Range: {0-9}
Default value: not applicable

dural Identifies the duration of an alert condition in hours, minutes, and seconds during which the channel suspected of an intrusion attempt is locked out. This impedes the efficiency of an automated password cracker. It is not longer than one minute typically, because a longer duration could cause service deterioration. The factory default is “0-0-30”.

Type: enum
Range: {0-99}-{0-59}-{0-59}
Default value: not applicable

tmout Identifies the time out interval in minutes. If there are no messages between the user and the switch over the *tmout* interval, the session is logged off. The factory default is “30”.

Type: enum
Range: {0-99}
Default value: not applicable

preLoginTimeOut Identifies the time out interval in minutes for the period between the initialization of the login process and the first entry by the user. If there are no messages between the user and the switch over the *preLoginTimeOut* interval, the session is logged off. Setting the value to 0 allows a user to receive autonomous messages from the switch without logging on (ACT-USER) and without being disconnected automatically. The factory default is “2”.

Type: enum
Range: {0-99}
Default value: not applicable

passwdExpAlert Indicates the number of days, after the password aging interval has elapsed, that a password expiration alert message is generated for the user before the existing password can no longer be used. The factory default is “2”.

Type: enum
Range: {0-30}
Default value: not applicable

passwdChgFreq Indicates the minimum number of days a password exists before a user can change it. Generally, *passwdChgFreq* is the lower limit for the password aging interval, for which *page* (in ED/ENT-USER-SECU) is the upper limit. When greater than zero, *passwdChgFreq* prohibits frequent password changing. The system stores the most recently used five passwords and prevents the user from reusing them (or the current password) when selecting a new password. Restricting password "flipping" and reuse makes the system more secure against intruders. A *passwdChgFreq* value of 20 days (the default) ideally prevents reuse of a password for a minumum of 120 days. In reality, this waiting period may not be achieved; for instance, when an Administrator using ENT-USER-SECU or ED-USER-SECU sets a password, the user must change the password immediately. Passwords assigned by the Administrator are remembered in the user's recent password list; but as they do not have a *passwdChgFreq* waiting period, they can be reused in less than (6 * *passwdChgFreq*) days. (Note: the Administrator may reuse recent passwords in ED-USER-SECU.) Set *passwdChgFreq* to be considerably less than the smallest value of *page* assigned to typical long-term users. Temporary users, who will have access for a period less than the value of *passwdChgFreq* and who must change passwords only on first use, can have values of *page* smaller than that set for *passwdChgFreq*. The factory default is “20”.

Type: enum
Range: {0-99}
Default value: not applicable

heartbeat Indicates the number of minutes that can pass without a REPT-COND automatic message being sent to the system administrators indicating the standing conditions on the switch. The REPT-COND automatic message is generated when no activity occurs within the heartbeat timeframe. Setting the value to the default of 0 deactivates the function. The factory default is “0”.

Type: enum
Range: {0-120}
Default value: not applicable

tcpConnEnabled Indicates whether the TCP connection is enabled. The factory default is “Y”.

Type: BoolYN
Range: Y = Enabled
N = Disabled (serial connections only)
Default value: not applicable

trustedHostEnabled Indicates whether the trusted host function is enabled; i.e., whether the system can connect only to trusted hosts or is open to any connection. The factory default is "N".

Type: BoolYN
Range: Y = Enabled (only trusted hosts can connect)
N = Disabled
Default value: not applicable

almqPort Identifies the port used for alarm queue sessions. The allowed range for *almqPort* precludes the use of any well-known TCP ports or ports already used by the switch. At present, the only value allowed is the factory default of "2363".

Type: enum
Range: {1025-1109}
{1111-1198}
{1200-1982}
{1986-2048}
{2050-2359}
{2362-5999}
{6010-6666}
{6668-6999}
{7001-65535}
Default value: not applicable

almqTmo Identifies the maximum elapsed time, in minutes, for a user to reconnect to the TL1 agent after a session disconnect or anomalous condition is detected; i.e., the maximum elapsed time during which alarm queuing can occur. If reconnection doesn't occur within the time specified by *almqTmo*, the alarm queue session is removed from the list of active alarm queue sessions and the alarms in the affected queue are discarded. Setting *almqTmo* to "0" globally disables alarm queuing and flushes queued events. The factory default is 0 (alarm queuing disabled).

Type: enum
Range: {0-4320}
Default value: not applicable

emPort Identifies the port used to connect to the Element Manager. At present, the only value allowed is the factory default of "2362".

Type: integer
Range: {1025-65535}
Default value: not applicable

em1Ip Identifies the IP address for the primary Element Manager. This address is required for interaction between the Element Manager and a switch running in secure mode; that is, when secure shell (SSH) is enabled. The factory default is “0.0.0.0”.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: not applicable

em2Ip Identifies the IP address for an optional secondary Element Manager. This address is required for interaction between the Element Manager and a switch running in secure mode; that is, when secure shell (SSH) is enabled. The factory default is “0.0.0.0”.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: not applicable

sshEnabled Identifies whether secure shell (SSH) is enabled. Setting the value to “Y” enables IP filtering, thus placing the box in secure mode by requiring the use of SSH for network access in place of common facilities such as telnet, rlogin and FTP. The factory default is “N”.

Type: BoolYN
Range: Y = SSH enabled
N = SSH disabled
Default value: not applicable

eventInterval Identifies the interval between TL1 events or alarms in milliseconds. The factory default is “150”.

Type: integer
Range: {50-500}
Default value: not applicable

Input Examples:

```
ED-SYS-SECU::COM:::MAXINV=3,DURAL=0-0-30,
   TMOUT=30,PRELOGINTIMEOUT=2,PASSWDEXPALERT=7,
   PASSWDCHGFREQ=20,HEARTBEAT=0,TCPCONNENABLED=Y,
   TRUSTEDHOSTENABLED=N,ALMQPORT=2363,ALMQTMO=0,
   EMPORT=2362,EM1IP=10.2.11.86,EM21P=0.0.0.0,
   SSHENABLED=N,EVENTINTERVAL=150;

RTRV-SYS-SECU;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:MAXINV=3,DURAL=0-0-30,TMOUT=30,
      PRELOGINTIMEOUT=2,PASSWDEXPALERT=7,
      PASSWDCHGFREQ=20,HEARTBEAT=0,TCPCONNENABLED=Y,
      TRUSTEDHOSTENABLED=N,ALMQPORT=2363,ALMQTMO=0,
      EMPORT=2362,EM1IP=10.2.11.86,EM21P=0.0.0.0,
      SSHENABLED=N,EVENTINTERVAL=150"
;
```

Related Commands:

```
DLT-ALMQ                    ENT/RTRV-IPHOST-SECU
RTRV-STATUS-ALMQ
```

RTRV/SET-ATTR-SECULOG

Commands:

RTRV-ATTR-SECULOG: Retrieve Attributes Security Log

SET-ATTR-SECULOG: Set Attributes Security Log

Descriptions:

RTRV-ATTR-SECULOG lets the user retrieve the security banner (that is, the free-format text warning, before access is granted, regarding unauthorized entry/use and possible consequences) for the switch.

SET-ATTR-SECULOG lets the user generate the security banner for the switch; that is, the free-format text warning, before access is granted, regarding unauthorized entry/use and possible consequences.

Category: Security **Security:** ADMIN for SET, View for RTRV

Input Formats:

```
RTRV-ATTR-SECULOG:[TID]:[<src>]:[CTAG]::
   [WRNLN=<wrnLn>];
SET-ATTR-SECULOG:[TID]:[<src>]:[CTAG]::WRNLN=<wrnLn>,
   [WRNTX=<wrnTx>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:WRNLN=<wrnLn>,WRNTX=<wrnTx>"
;
```

Input Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

wrnLn Identifies, within the warning message, the line number that receives the new text specified by *wrnTx*. The switch supports up to 20 lines of text. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the entire security banner will be returned.

Type: integer
Range: {1-20}
Default value: none

wrnTx Identifies the free-format text warning on the line identified by *wrnLn*. A null value (not entering a value) results in a blank line.

Type: string
Range: up to 61 ASCII characters
Default value: none

Input Examples:

```
RTRV-ATTR-SECULOG;

SET-ATTR-SECULOG:::::WRNLN=1,WRNTX=This is a private
   computer system.  Unauthorized access or use ;
SET-ATTR-SECULOG:::::WRNLN=2,WRNTX= may lead to prosec
   ution.;
SET-ATTR-SECULOG:::::WRNLN=3;
```

Output Example:

```
   LUCENT 2005-05-15 14:37:49
M  0 COMPLD
   "COM:WRNLN=1,WRNTX=This is a private computer sys
      tem.  Unauthorized access or use "
   "COM:WRNLN=2,WRNTX= may lead to prosecution."
   "COM:WRNLN=3,WRNTX="
   "COM:WRNLN=4,WRNTX="
   "COM:WRNLN=5,WRNTX="
   "COM:WRNLN=6,WRNTX="
   "COM:WRNLN=7,WRNTX="
   "COM:WRNLN=8,WRNTX="
   "COM:WRNLN=9,WRNTX="
   "COM:WRNLN=10,WRNTX="
   "COM:WRNLN=11,WRNTX="
   "COM:WRNLN=12,WRNTX="
   "COM:WRNLN=13,WRNTX="
   "COM:WRNLN=14,WRNTX="
   "COM:WRNLN=15,WRNTX="
   "COM:WRNLN=16,WRNTX="
   "COM:WRNLN=17,WRNTX="
   "COM:WRNLN=18,WRNTX="
   "COM:WRNLN=19,WRNTX="
   "COM:WRNLN=20,WRNTX="
;
```

Related Commands: none

RTRV-STATUS-ALMQ

Command:

RTRV-STATUS-ALMQ: Retrieve Status Alarm Queue

Description:

RTRV-STATUS-ALMQ allows a user to retrieve parameters associated with alarm queuing sessions established for alarm queuing TCP ports defined with ED-SYS-SECU. Use this command to retrieve the affected alarm queuing session(s), the IP address for the switch, the date and time the session was established, the date and time alarm queuing began, the date and time of reconnection to the TL1 agent, and the current state of the alarm queue.

Category: Security **Security:** View

Input Format:

```
RTRV-STATUS-ALMQ:[TID]:[<almqSessionId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<almqSessionId>:SRCIPADDR=<srcIpAddr>,
      CONNECTTIMESTAMP=<connectTimestamp>,
      QUEUEINGTIMESTAMP=<queueingTimestamp>,
      REPLAYTIMESTAMP=<replayTimestamp>,
      ALMQSTATE=<almqState>"
;
```

Parameters:

almqSessionId Identifies the alarm queuing session for which to return status from the list of active alarm queuing sessions. *almqSessionID* is the hexadecimal representation of the IP address of the machine connecting to the alarm queue port. A null value is equivalent to "ALL"; that is, if the optional AID is omitted, the switch returns status for all sessions having alarm queuing enabled.

Type: AlmqSessionId
Range: up to eight hexadecimal characters
Default value: none

srcIpAddr Identifies the IP address for the client (i.e., the user's computer) used to access the alarm queue session port on the switch (defined by the parameter *almqPort* in the command ED-SYS-SECU).

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

connectTimestamp Identifies the date and time that the alarm queuing session was established.

Type: string
Range: {MM-DD-YYYY-HH-MM-SS}
Default value: none

queueingTimestamp Identifies the date and time alarm queuing began due to an anomalous or error condition.

Type: string
Range: {MM-DD-YYYY-HH-MM-SS}
Default value: none

replayTimestamp Identifies the date and time the user reconnects to the TL1 agent after a session disconnect or anomalous condition is detected, and replay of queued alarms begins.

Type: string
Range: {MM-DD-YYYY-HH-MM-SS}
Default value: none

almqState Identifies the current state of an alarm queue established on disconnection with the switch of a specific session on a client.

Type: enum
Range: CONNECTED = the client session is not disconnected from the switch; alarms do not queue.
QUEUEING = the client session is disconnected from the switch; alarms queue for subsequent replay.
REPLAYING = the client session has reconnected to the switch, which outputs the queued autonomous messages to the client.
Default value: none

Input Example:

```
RTRV-STATUS-ALMQ;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "a0a0002:SRCIPADDR=199.190.180.1,
      CONNECTTIMESTAMP=05-03-2005-08-35-00,
      QUEUEINGTIMESTAMP=05-04-2005-16-42-55,
      REPLAYTIMESTAMP=05-04-2005-16-55-27,
      ALMQSTATE=CONNECTED"
;
```

Related Commands:

DLT-ALMQ	ED/RTRV-SYS-SECU

DLT/ED/ENT/RTRV-LSET

Commands:

DLT-LSET: Delete Link Set

ED-LSET: Edit Link Set

ENT-LSET: Enter Link Set

RTRV-LSET: Retrieve Link Set

Descriptions:

DLT-LSET lets the user delete an SS7 link set.

ED-LSET lets the user change the maximum number of links that can be active for an SS7 link set.

ENT-LSET lets the user add a link set. ENT-LSET will not work correctly unless the following commands have already been issued in the listed order: ENT-SS7SYS, ENT-PRFL-PC, ENT-PC.

RTRV-LSET lets the user retrieve parameters associated with an SS7 link set.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-LSET:[TID]:<lsetId>:[CTAG];

ED-LSET:[TID]:<lsetId>:[CTAG]::
   ACTLNKREQD=<actLnkReqd>;

ENT-LSET:[TID]:<lsetId>:[CTAG]::[ADJDPC=<lsetAdjDpc>,
   [ACTLNKREQD=<actLnkReqd>];

RTRV-LSET:[TID]:[<lsetId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<lsetAid>:ADJDPC=<lsetAdjDpc>,
      ACTLNKREQD=<actLnkReqd>"
;
```

Parameters:

lsetId Identifies the AID as an SS7 link set. A null value (in RTRV input) is equivalent to "ALL"; that is, by leaving the field blank, parameters for all SS7 link sets configured in the system will be returned.

Type: LsetAid
Range: {1-20}
Default value: none

lsetAdjDpc Identifies the adjacent DPC to which the link set connects.

Type: enum
Range: {0-255}-{0-255}-{0-255}
Default value: none

actLnkReqd Identifies the maximum number of links that can be active at any given time.

Type: integer
Range: {1-16}
Default value: 16

Input Examples:

```
DLT-LSET::1;

ED-LSET::1:::ACTLNKREQD=16;

ENT-LSET::1:::ADJDPC=192-43-156,ACTLNKREQD=16;

RTRV-LSET::1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:ADJDPC=192-43-156,ACTLNKREQD=16"
;
```

Related Commands:

```
ED-STATE-LSET            INIT-REG-LSET
RTRV-PM-LSET             RTRV-STATUS-LSET
```

DLT/ED/ENT/RTRV-PC

Commands:

DLT-PC: Delete Point Code

ED-PC: Edit Point Code

ENT-PC: Enter Point Code

RTRV-PC: Retrieve Point Code

Descriptions:

DLT-PC lets the user delete a point code for an adjacent or a remote device, but not for the Lucent Compact switch (OWN).

ED-PC lets the user change the properties associated with an adjacent or a remote device, but not for the Lucent Compact switch (OWN).

ENT-PC lets the user add a point code for the Lucent Compact switch (OWN), an adjacent device (ADJ), or a remote device (REM). The Lucent Compact switch supports a maximum of 1024 point codes. ENT-PC will not work unless the following commands have already been issued in the listed order: ENT-SS7SYS and ENT-PRFL-PC.

RTRV-PC lets the user retrieve parameters associated with a point code.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-PC:[TID]:<pcId>:[CTAG];

ED-PC:[TID]:<pcId>:[CTAG]::[PCPRFL=<pcPrflId>],
   [MINDGT2SEIZE=<minDgt2Seize>],
   [ISUPTPAUSE=<isupTPause>],
   [PCPAUSEACTN=<pcPauseActn>],[PCSSF=<pcSsf>],
   [RSTREQ=<rstReq>],[ANSIVARIANT=<ansiVariant>];

ENT-PC:[TID]:<pcId>:[CTAG]::<pcDir>,<pcPrflId>:
   [PCSTARTMODE=<pcStartMode>],
   [MINDGT2SEIZE=<minDgt2Seize>],
   [ISUPTPAUSE=<isupTPause>],
   [PCPAUSEACTN=<pcPauseActn>],[PCSSF=<pcSsf>],
   [RSTREQ=<rstReq>],[ANSIVARIANT=<ansiVariant>];

RTRV-PC:[TID]:[<pcId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<pcId>:<pcDir>,<pcPrflId>:
      PCSTARTMODE=<pcStartMode>,
      MINDGT2SEIZE=<minDgt2Seize>,
      ISUPTPAUSE=<isupTPause>,
      PCPAUSEACTN=<pcPauseActn>,PCSSF=<pcSsf>,
      RSTREQ=<rstReq>,ANSIVARIANT=<ansiVariant>"
;
```

Parameters:

pcId Identifies the AID as a point code. A null value (in RTRV input) is equivalent to "ALL"; that is, by leaving the field blank, parameters for all point codes configured in the system will be returned.

Type: PcAid
Range: {0-255}-{0-255}-{0-255}
Default value: none

pcDir Identifies the type of point code.

Type: enum
Range: ADJ = adjacent point code
OWN = own point code
REM = remote point code
Default value: none

pcPrflId Identifies the point code profile.

Type: enum
Range: {1-128}
Default value: none

pcStartMode Identifies the action the switch takes on startup for all circuit groups towards the DPC to ensure a known state for the circuits.

Type: enum
Range: STARTNOACTION = no action on startup
STARTRESET = reset point code on startup
STARTUNBLOCK = unblock point code on startup
Default value: STARTNOACTION

minDgt2Seize Identifies the minimum number of digits that must be present in the Called Party Number before the router issues a connect request.

Type: integer
Range: {1-20}
Default value: 3

isupTPause Identifies the value (in seconds) for the Pause Validation timer. Typical values are 15 to 20 seconds.

Type: integer
Range: {0-3267}
Default value: 0

pcPauseActn Identifies the action to be taken when MTP level 3 sends a pause status primitive to indicate that the DPC is unavailable.

Type: enum
Range: CLRDFLT = (Clear: Default) clear all calls on receipt of the pause status primitive
CLRTMOUT = (Clear: Timeout) clear calls only when the pause timer (tPAUSE) expires
CLRTRAN = (Clear: Transient) clear transient calls on receipt of the pause status primitive and start the timer tPAUSE
Default value: CLRTMOUT

pcSsf Identifies the sub-service field to be used.

Type: enum
Range: SSFINTL= international sub-service field
SSFNAT= national sub-service field
SSFRES = reserved sub-service field
SSFSPARE = spare sub-service field
Default value: SSFNAT

rstReq Specifies the type of restart procedure required. If this field is not 0, the MTP Level 3 restart procedure is started by MTP Level 3 as soon as the first link becomes in-service.

Type: enum
Range: ANSI = ANSI restart protocol
NORST = restart not required
Default value: NORST

ansiVariant Identifies the format for Group Reset messages and acknowledgements used by the equipment at the point code.

Type: AnsiVariant
Range: 92 = 1992 ANSI format
96 = 1996 ANSI format
Default value: 92

Input Examples:

```
DLT-PC::1-1-1;

ED-PC::1-1-1:::PCPRFL=1,MINDGT2SEIZE=7,ISUPTPAUSE=10,
   PCPAUSEACTN=CLRTMOUT,PCSSF=SSFNAT,RSTREQ=NORST,
   ANSIVARIANT=92;

ENT-PC::1-1-1:::ADJ,1:PCSTARTMODE=STARTNOACTION,
   MINDGT2SEIZE=7,ISUPTPAUSE=10,PCPAUSEACTN=CLRTMOUT,
   PCSSF=SSFNAT,RSTREQ=NORST,ANSIVARIANT=92;

RTRV-PC::192-43-156;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "192-43-156:ADJ,1:PCSTARTMODE=STARTNOACTION,
      MINDGT2SEIZE=7,ISUPTPAUSE=10,
      PCPAUSEACTN=CLRTMOUT,PCSSF=SSFNAT,RSTREQ=NORST,
      ANSIVARIANT=92"
;
```

Related Commands:

```
DLT/ED/ENT/RTRV-PRFL-PC  INIT-REG-DPC
RTRV-PM-DPC              RTRV-STATUS-PC
```

DLT/ED/ENT/RTRV-PRFL-PC

Commands:

DLT-PRFL-PC: Delete Profile Point Code

ED-PRFL-PC: Edit Profile Point Code

ENT-PRFL-PC: Enter Profile Point Code

RTRV-PRFL-PC: Retrieve Profile Point Code

Descriptions:

DLT-PRFL-PC lets the user delete a profile for a point code.

ED-PRFL-PC lets the user edit a profile for a point code. Use this command to change the values of MTP3 timers for a point code.

ENT-PRFL-PC lets the user add a profile for a point code. ENT-PRFL-PC is dependent on ENT-SS7SYS; that is, ENT-PRFL-PC will not work unless ENT-SS7SYS has already been issued.

RTRV-PRFL-PC lets the user retrieve a profile for a point code.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-PRFL-PC:[TID]:<pcPrflId>:[CTAG];

ED-PRFL-PC:[TID]:<pcPrflId>:[CTAG]::
   [MTP3T6=<mtp3T6>],[MTP3T8=<mtp3T8>],
   [MTP3T10=<mtp3T10>],[MTP3T11=<mtp3T11>],
   [MTP3T18=<mtp3T18>],[MTP3T25=<mtp3T25>];
   [MTP3T28=<mtp3T28>],[MTP3T29=<mtp3T29>];

ENT-PRFL-PC:[TID]:<pcPrflId>:[CTAG]::
   [MTP3T6=<mtp3T6>],[MTP3T8=<mtp3T8>],
   [MTP3T10=<mtp3T10>],[MTP3T11=<mtp3T11>],
   [MTP3T18=<mtp3T18>],[MTP3T25=<mtp3T25>];
   [MTP3T28=<mtp3T28>],[MTP3T29=<mtp3T29>];

RTRV-PRFL-PC:[TID]:[<pcPrflId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<pcPrflId>:MTP3T6=<mtp3T6>,MTP3T8=<mtp3T8>,
      MTP3T10=<mtp3T10>,MTP3T11=<mtp3T11>,
      MTP3T18=<mtp3T18>,MTP3T25=<mtp3T25>,
      MTP3T28=<mtp3T28>,MTP3T29=<mtp3T29>"
;
```

Parameters:

pcPrflId Identifies the AID as a point code profile.

Type: PcPrflId
Range: {1-128}
Default value: none

mtp3T6 Identifies the Timer T6 value (in seconds) for the MTP3 layer. Timer T6 specifies the delay to avoid mis-sequencing on rerouting.

Type: integer
Range: {0-200}
Default value: 0.5

mtp3T8 Identifies the Timer T8 value (in seconds) for the MTP3 layer. Timer T8 is the transfer prohibited inhibition timer.

Type: integer
Range: {0-500}
Default value: 0.8

mtp3T10 Identifies the Timer T10 value (in seconds) for the MTP3 layer. Timer T10 is the route set test timer.

Type: integer
Range: {0-100}
Default value: 30

mtp3T11 Identifies the Timer T11 value (in seconds) for the MTP3 layer. Timer T11 is the transfer restrict timer.

Type: integer
Range: {0-100}
Default value: 65

mtp3T18 Identifies the Timer T18 value (in seconds) for the MTP3 layer. Timer T18 is the transfer restricted inhibition timer.

Type: integer
Range: {0-6553.5}
Default value: 10

mtp3T25 Identifies the Timer T25 value (in seconds) for the MTP3 layer. Timer T25 specifies the period to wait for a TRAFFIC RESTART ALLOWED message.

Type: integer
Range: {0-6553.5}
Default value: 10

mtp3T28 Identifies the Timer T28 value (in seconds) for the MTP3 layer. Timer T28 specifies the period to wait for a TRAFFIC RESTART WAITING message from an adjacent restarting signaling point.

Type: integer
Range: {0-100}
Default value: 5

mtp3T29 Identifies the Timer T29 value (in seconds) for the MTP3 layer. Timer T29 is started when a TRA is sent in response to an unexpected TRA or TRW.

Type: integer
Range: {0-100}
Default value: 60

Input Examples:

```
DLT-PRFL-PC::1;

ED-PRFL-PC::1:::MTP3T6=0.5,MTP3T8=0.8,MTP3T10=30,
   MTP3T11=65,MTP3T18=10,MTP3T25=30,MTP3T28=5,
   MTP3T29=60;

ENT-PRFL-PC::1:::MTP3T6=0.5,MTP3T8=0.8,MTP3T10=30,
   MTP3T11=65,MTP3T18=10,MTP3T25=30,MTP3T28=5,
   MTP3T29=60;

RTRV-PRFL-PC::1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:MTP3T6=0.5,MTP3T8=0.8,MTP3T10=30,MTP3T11=65,
      MTP3T18=10,MTP3T25=30,MTP3T28=5,MTP3T29=60"
;
```

Related Commands:

DLT/ED/ENT/RTRV-PC

DLT/ED/ENT/RTRV-PRFL-SLKL2

Commands:

DLT-PRFL-SLKL2: Delete Profile Signaling Link Layer 2

ED-PRFL-SLKL2: Edit Profile Signaling Link Layer 2

ENT-PRFL-SLKL2: Enter Profile Signaling Link Layer 2

RTRV-PRFL-SLKL2: Retrieve Profile Signaling Link Layer 2

Descriptions:

DLT-PRFL-SLKL2 lets the user delete a signaling link MTP layer 2 profile.

ED-PRFL-SLKL2 lets the user edit a signaling link MTP layer 2 profile.

ENT-PRFL-SLKL2 lets the user add a signaling link MTP layer 2 profile. ENT-PRFL-SLKL2 is dependent on ENT-SS7SYS; that is, ENT-PRFL-SLKL2 will not work unless ENT-SS7SYS has already been issued.

RTRV-PRFL-SLKL2 lets the user retrieve a signaling link MTP layer 2 profile.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-PRFL-SLKL2:[TID]:<mtp2PrflId>:[CTAG];

ED-PRFL-SLKL2:[TID]:<mtp2PrflId>:[CTAG]::
   [MTP2T1=<mtp2T1>],[MTP2T2=<mtp2T2>],
   [MTP2T3=<mtp2T3>],[MTP2T5=<mtp2T5>],
   [MTP2T6=<mtp2T6>],[MTP2T7=<mtp2T7>],
   [MTP2PROVEMRGCY=<mtp2ProvEmrgcy>],
   [MTP2PROVNORMAL=<mtp2ProvNormal>],
   [MTP2AA=<mtp2AA>];

ENT-PRFL-SLKL2:[TID]:<mtp2PrflId>:[CTAG]::
   [MTP2T1=<mtp2T1>],[MTP2T2=<mtp2T2>],
   [MTP2T3=<mtp2T3>],[MTP2T5=<mtp2T5>],
   [MTP2T6=<mtp2T6>],[MTP2T7=<mtp2T7>],
   [MTP2PROVEMRGCY=<mtp2ProvEmrgcy>],
   [MTP2PROVNORMAL=<mtp2ProvNormal>],
   [MTP2AA=<mtp2AA>];

RTRV-PRFL-SLKL2:[TID]:[<mtp2PrflId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<mtp2PrflId>:MTP2T1=<mtp2T1>,MTP2T2=<mtp2T2>,
      MTP2T3=<mtp2T3>,MTP2T5=<mtp2T5>,MTP2T6=<mtp2T6>,
      MTP2T7=<mtp2T7>,MTP2PROVEMRGCY=<mtp2ProvEmrgcy>,
      MTP2PROVNORMAL=<mtp2ProvNormal>,MTP2AA=<mtp2AA>"
;
```

Parameters:

mtp2PrflId Identifies the AID as an MTP layer 2 profile. A null value (in RTRV input) is equivalent to "ALL"; that is, by leaving the field blank, parameters for all MTP2 signaling link profiles configured in the system will be returned.

Type: Mtp2PrflId
Range: {1-128}
Default value: none

mtp2T1 Identifies the Timer T1 value (in seconds) for the MTP2 layer. This is the ALIGNMENT READY timer.

Type: integer
Range: {0-30}
Default value: 13

mtp2T2 Identifies the Timer T2 value (in seconds) for the MTP2 layer. This is the NOT ALIGNED timer.

Type: integer
Range: {0-150}
Default value: 11.5

mtp2T3 Identifies the Timer T3 value (in seconds) for the MTP2 layer. This is the ALIGNED timer.

Type: integer
Range: {0-15}
Default value: 11.5

mtp2T5 Identifies the Timer T5 value (in seconds) for the MTP2 layer. This is the SENDING SIB timer.

Type: integer
Range: {0-0.3}
Default value: 0.1

mtp2T6 Identifies the Timer T6 value (in seconds) for the MTP2 layer. This is the remote congestion timer.

Type: integer
Range: {0-6}
Default value: 3

mtp2T7 Identifies the Timer T7 value (in seconds) for the MTP2 layer. This is the excessive delay of acknowledgement timer.

Type: integer
Range: {0-2}
Default value: 0.5

mtp2ProvEmrgcy Identifies the emergency proving period timer value in seconds.

Type: integer
Range: {0-2}
Default value: 0.6

mtp2ProvNormal Identifies the normal proving period timer value in seconds.

Type: integer
Range: {0-10}
Default value: 2.3

mtp2AA Identifies the maximum number of alignment attempts allowed.

Type: integer
Range: {0-15}
Default value: 5

Input Examples:

```
DLT-PRFL-SLKL2::1;

ED-PRFL-SLKL2::1:::MTP2T1=13,MTP2T2=11.5,
   MTP2T3=11.5,MTP2T5=0.1,MTP2T6=3,MTP2T7=0.5,
   MTP2PROVEMRGCY=0.6,MTP2PROVNORMAL=2.3,MTP2AA=1;

ENT-PRFL-SLKL2::1:::MTP2T1=13,MTP2T2=11.5,
   MTP2T3=11.5,MTP2T5=0.1,MTP2T6=3,MTP2T7=0.5,
   MTP2PROVEMRGCY=0.6,MTP2PROVNORMAL=2.3,MTP2AA=1;

RTRV-PRFL-SLKL2::1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:MTP2T1=13,MTP2T2=11.5,MTP2T3=11.5,MTP2T5=0.1,
      MTP2T6=3,MTP2T7=0.5,MTP2PROVEMRGCY=0.6,
      MTP2PROVNORMAL=2.3,MTP2AA=1"
;
```

Related Commands:

```
INIT-REG-SLKL2          RTRV-PM-SLKL2
```

DLT/ED/ENT/RTRV-PRFL-SLKL3

Commands:

DLT-PRFL-SLKL3: Delete Profile Signaling Link Layer 3

ED-PRFL-SLKL3: Edit Profile Signaling Link Layer 3

ENT-PRFL-SLKL3: Enter Profile Signaling Link Layer 3

RTRV-PRFL-SLKL3: Retrieve Profile Signaling Link Layer 3

Descriptions:

DLT-PRFL-SLKL3 lets the user delete a signaling link MTP layer 3 profile.

ED-PRFL-SLKL3 lets the user edit a signaling link MTP layer 3 profile.

ENT-PRFL-SLKL2 lets the user add a signaling link MTP layer 3 profile. ENT-PRFL-SLKL3 is dependent on ENT-SS7SYS; that is, ENT-PRFL-SLKL3 will not work unless ENT-SS7SYS has already been issued.

RTRV-PRFL-SLKL3 lets the user retrieve a signaling link MTP layer 2 profile.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-PRFL-SLKL3:[TID]:<mtp3PrflId>:[CTAG];
```

```
ED-PRFL-SLKL3:[TID]:<mtp3PrflId>:[CTAG]::
   [MTP3T1=<mtp3T1>],[MTP3T2=<mtp3T2>],
   [MTP3T3=<mtp3T3>],[MTP3T4=<mtp3T4>],
   [MTP3T5=<mtp3T5>],[MTP3T7=<mtp3T7>],
   [MTP3T12=<mtp3T12>],[MTP3T13=<mtp3T13>],
   [MTP3T14=<mtp3T14>],[MTP3T17=<mtp3T17>],
   [MTP3T20=<mtp3T20>],[MTP3T21=<mtp3T21>],
   [MTP3TSTT1=<mtp3TstT1>],[MTP3TSTT2=<mtp3TstT2>],
   [MTP3T31=<mtp3T31>],[MTP3T33=<mtp3T33>],
   [MTP3T34=<mtp3T34>];
```

```
ENT-PRFL-SLKL3:[TID]:<mtp3PrflId>:[CTAG]::
   [MTP3T1=<mtp3T1>],[MTP3T2=<mtp3T2>],
   [MTP3T3=<mtp3T3>],[MTP3T4=<mtp3T4>],
   [MTP3T5=<mtp3T5>],[MTP3T7=<mtp3T7>],
   [MTP3T12=<mtp3T12>],[MTP3T13=<mtp3T13>],
   [MTP3T14=<mtp3T14>],[MTP3T17=<mtp3T17>],
   [MTP3T20=<mtp3T20>],[MTP3T21=<mtp3T21>],
   [MTP3TSTT1=<mtp3TstT1>],[MTP3TSTT2=<mtp3TstT2>],
   [MTP3T31=<mtp3T31>],[MTP3T33=<mtp3T33>],
   [MTP3T34=<mtp3T34>];

RTRV-PRFL-SLKL3:[TID]:[<mtp3PrflId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<mtp3PrflId>:MTP3T1=<mtp3T1>,MTP3T2=<mtp3T2>,
      MTP3T3=<mtp3T3>,MTP3T4=<mtp3T4>,MTP3T5=<mtp3T5>,
      MTP3T7=<mtp3T7>,MTP3T12=<mtp3T12>,
      MTP3T13=<mtp3T13>,MTP3T14=<mtp3T14>,
      MTP3T17=<mtp3T17>,MTP3T20=<mtp3T20>,
      MTP3T21=<mtp3T21>,MTP3TSTT1=<mtp3TstT1>,
      MTP3TSTT2=<mtp3TstT2>,MTP3T31=<mtp3T31>,
      MTP3T33=<mtp3T33>,MTP3T34=<mtp3T34>"
;
```

Parameters:

mtp3PrflId Identifies the AID as an MTP layer 3 profile. A null value (in RTRV input) is equivalent to "ALL"; that is, by leaving the field blank, parameters for all MTP3 signaling link profiles configured in the system will be returned.

Type: Mtp3PrflId
Range: {1-20}
Default value: none

mtp3T1 Identifies the Timer T1 value (in seconds) for the MTP3 layer. Timer T1 specifies the delay to avoid mis-sequencing on changeover.

Type: integer
Range: {0-150}
Default value: 0.8

mtp3T2 Identifies the Timer T2 value (in seconds) for the MTP3 layer. Timer T2 specifies the period to wait for changeover acknowledgement.

Type: integer
Range: {0-500}
Default value: 1.4

mtp3T3 Identifies the Timer T3 value (in seconds) for the MTP3 layer. Timer T3 specifies the delay to avoid mis-sequencing on changeback.

Type: integer
Range: {0-200}
Default value: 0.8

mtp3T4 Identifies the Timer T4 value (in seconds) for the MTP3 layer. Timer T4 specifies the period to wait for the first changeback acknowledgement.

Type: integer
Range: {0-200}
Default value: 0.8

mtp3T5 Identifies the Timer T5 value (in seconds) for the MTP3 layer. Timer T5 specifies the period to wait for the second changeback acknowledgement.

Type: integer
Range: {0-200}
Default value: 0.8

mtp3T7 Identifies the Timer T7 value (in seconds) for the MTP3 layer. Timer T7 specifies the period to wait for a link connection acknowledgement.

Type: integer
Range: {0-5}
Default value: 1

mtp3T12 Identifies the Timer T12 value (in seconds) for the MTP3 layer. Timer T12 specifies the period to wait for an uninhibit acknowledgement.

Type: integer
Range: {0-200}
Default value: 1

mtp3T13 Identifies the Timer T13 value (in seconds) for the MTP3 layer. Timer T13 specifies the period to wait for a force uninhibit message.

Type: integer
Range: {0-200}
Default value: 0.8

mtp3T14 Identifies the Timer T14 value (in seconds) for the MTP3 layer. Timer T14 specifies the period to wait for an inhibition acknowledgement.

Type: integer
Range: {0-5}
Default value: 2

mtp3T17 Identifies the Timer T17 value (in seconds) for the MTP3 layer. Timer T17 specifies the delay to avoid oscillation of initial alignment failure and link restart.

Type: integer
Range: {0-200}
Default value: 1.5

mtp3T20 Identifies the Timer T20 value (in seconds) for the MTP3 layer. Timer T20 is the local inhibit test timer.

Type: integer
Range: {0-200}
Default value: 90

mtp3T21 Identifies the Timer T21 value (in seconds) for the MTP3 layer. Timer T21 is the remote inhibit test timer.

Type: integer
Range: {0-200}
Default value: 90

mtp3TstT1 Identifies the Test Timer T1 value (in seconds) for the MTP3 layer. Test Timer T1 is the Signaling Link Test message Acknowledgement (SLTA) timer described in GR-246-CORE, chapter T1.111.7.

Type: integer
Range: {0-100}
Default value: 8

mtp3TstT2 Identifies the Test Timer T2 value (in seconds) for the MTP3 layer. Test Timer T2 is the periodic Signaling Link Test Message (SLTM) timer described in GR-246-CORE, chapter T1.111.7.

Type: integer
Range: {0-100}
Default value: 60

mtp3T31 Identifies the Timer T31 value (in seconds) for the MTP3 layer. Timer T31 is the false link congestion detection timer.

Type: integer
Range: {0-200}
Default value: 30

mtp3T33 Identifies the Timer T33 value (in seconds) for the MTP3 layer. Timer T33 is the probation timer for link oscillation.

Type: integer
Range: {0-6553.5}
Default value: 100

mtp3T34 Identifies the Timer T34 value (in seconds) for the MTP3 layer. Timer T34 is the suspension timer for link oscillation.

Type: integer
Range: {0-6553.5}
Default value: 10

Input Examples:

```
DLT-PRFL-SLKL3::1;

ED-PRFL-SLKL3::1:::MTP3T1=0.8,MTP3T2=1.4,MTP3T3=0.8,
   MTP3T4=0.8,MTP3T5=0.8,MTP3T7=1,MTP3T12=1,
   MTP3T13=0.8,MTP3T14=2,MTP3T17=1.5,MTP3T20=90,
   MTP3T21=90,MTP3TSTT1=8,MTP3TSTT2=60,MTP3T31=30,
   MTP3T33=100,MTP3T34=10;

ENT-PRFL-SLKL3::1:::MTP3T1=0.8,MTP3T2=1.4,MTP3T3=0.8,
   MTP3T4=0.8,MTP3T5=0.8,MTP3T7=1,MTP3T12=1,
   MTP3T13=0.8,MTP3T14=2,MTP3T17=1.5,MTP3T20=90,
   MTP3T21=90,MTP3TSTT1=8,MTP3TSTT2=60,MTP3T31=30,
   MTP3T33=100,MTP3T34=10;

RTRV-PRFL-SLKL3::1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:MTP3T1=0.8,MTP3T2=1.4,MTP3T3=0.8,MTP3T4=0.8,
      MTP3T5=0.8,MTP3T7=1,MTP3T12=1,MTP3T13=0.8,
      MTP3T14=2,MTP3T17=1.5, MTP3T20=90,MTP3T21=90,
      MTP3TSTT1=8,MTP3TSTT2=60,MTP3T31=30,MTP3T33=100,
      MTP3T34=10"
;
```

Related Commands:

```
INIT-REG-SLKL2          RTRV-PM-SLKL2
```

DLT/ENT/RTRV-ROUTE-SS7

Commands:

DLT-ROUTE-SS7: Delete SS7 Route

ENT-ROUTE-SS7: Enter SS7 Route

RTRV-ROUTE-SS7: Retrieve SS7 Route

Descriptions:

DLT-ROUTE-SS7 lets the user delete an SS7 route.

ENT-ROUTE-SS7 lets the user establish an SS7 route. Use ENT-ROUTE-SS7 to establish the point code, the link set identity, and the link set priority. ENT-ROUTE-SS7 will not work correctly unless the following commands have already been issued in the listed order: ENT-SS7SYS, ENT-PRFL-PC, ENT-PC, and ENT-LSET.

RTRV-ROUTE-SS7 lets the user retrieve the link set priority associated with a link set in an SS7 route.

Category: Signaling **Security:** SA for DLT and ENT, View for RTRV

Input Formats:

```
DLT-ROUTE-SS7:[TID]:<routeSs7>:[CTAG];
ENT-ROUTE-SS7:[TID]:<routeSs7>:[CTAG]::
   [<lsetPriority>];
RTRV-ROUTE-SS7:[TID]:[<routeSs7>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<routeSs7>:<lsetPriority>"
;
```

Parameters:

routeSs7 Identifies the AID as an SS7 route. The pattern is a combination of the destination point code and the link set connecting to it. A null value (in RTRV input) is equivalent to "ALL"; that is, by leaving the field blank, parameters for all SS7 routes configured in the system will be returned.

Type: RouteSs7Aid
Range: <PCAID>-<LSETAID>, where
PCAID = {0-255}-{0-255}-{0-255} and
LSETAID = {1-20}
Default value: none

lsetPriority Identifies the priority for the link set, with lower numbers indicating higher priority. Priorities must be assigned contiguously for a given point code; for example, for a single point code, you cannot have multiple link sets, some with priority “1” and the rest with priority “3”.

Type: enum
Range: {0-3}
Default value: 0

Input Examples:

```
DLT-ROUTE-SS7::3-4-5-16;

ENT-ROUTE-SS7::3-4-5-16:::0;

RTRV-ROUTE-SS7::3-4-5-16;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "3-4-5-16:0"
;
```

Related Commands:

```
INIT-REG-SS7ROUTE          RTRV-PM-SS7ROUTE
RTRV-STATUS-ROUTESS7
```

DLT/ED/ENT/RTRV-SLK

Commands:

DLT-SLK: Delete Signaling Link

ED-SLK: Edit Signaling Link

ENT-SLK: Enter Signaling Link

RTRV-SLK: Retrieve Signaling Link

Descriptions:

DLT-SLK lets the user delete a signaling link.

ED-SLK lets the user edit a signaling link. Use this command to assign profiles to signaling links.

ENT-SLK lets the user add a signaling link. You can have up to four signaling links on any I/O module. Use ENT-SLK to assign profiles to signaling links. The three *congestionThreshold* parameters define the onset thresholds for the three congestion levels. Each onset threshold (*congestionThreshold*) is the discard threshold for the immediately preceding congestion level; i.e., once the congestion level reaches *n*, MTP3 discards the congestion level *n-1* messages. The abatement threshold for each congestion level is the average of the onset thresholds for the concerned congestion level and the immediately preceding congestion level; for example, the abatement threshold for congestion level 2 is the average of *congestionThreshold1* and *congestionThreshold2*. ENT-SLK will not work correctly unless the following commands have already been issued: ENT-T1, ENT-PRFL-SLKL2, ENT-PRFL-SLKL3, and ENT-LSET.

RTRV-SLK lets the user retrieve parameters associated with a signaling link. Use RTRV-SLK to retrieve the link's location (slot/port/channel), MTP2 profile, link set identity, link selection code, MTP3 profile, speed, priority level, and congestion thresholds.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-SLK:[TID]:<ss7LnkId>:[CTAG];

ED-SLK:[TID]:<ss7LnkId>:[CTAG]::[SLC=<slc>],
   [MTP2PRFLID=<mtp2PrflId>],
   [MTP3PRFLID=<mtp3PrflId>],[CONGLVL1=<congLvl1>],
   [CONGLVL2=<congLvl2>],[CONGLVL3=<congLvl3>],
   [ENABLEMTP3T31=<enableMtp3T31>],
   [RESETMTP3T31=<resetMtp3T31>];

ENT-SLK:[TID]:<ss7LnkId>:[CTAG]::IOMPORT=<iomPort>,
   CHAN=<chan>,LSETID=<lsetId>,SLC=<slc>,
   MTP2PRFLID=<mtp2PrflId>,MTP3PRFLID=<mtp3PrflId>,
   [LNKSPEED=<lnkSpeed>],[LNKPRIORITY=<lnkPriority>],
   [CONGLVL1=<congLvl1>],[CONGLVL2=<congLvl2>],
   [CONGLVL3=<congLvl3>],
   [ENABLEMTP3T31=<enableMtp3T31>],
   [RESETMTP3T31=<resetMtp3T31>];

RTRV-SLK:[TID]:[<ss7LnkId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<ss7LnkId>:IOMPORT=<iomPort>,CHAN=<chan>,
      LSETID=<lsetId>,SLC=<slc>,
      MTP2PRFLID=<mtp2PrflId>,MTP3PRFLID=<mtp3PrflId>,
      LNKSPEED=<lnkSpeed>,LNKPRIORITY=<lnkPriority>,
      CONGLVL1=<congLvl1>,CONGLVL2=<congLvl2>,
      CONGLVL3=<congLvl3>,
      ENABLEMTP3T31=<enableMtp3T31>,
      RESETMTP3T31=<resetMtp3T31>"
;
```

Parameters:

ss7LnkId Identifies the AID as a signaling link. There can be no more than 16 signaling links in a link set. A null value (in RTRV input) is equivalent to "ALL"; that is, by leaving the field blank, parameters for all signaling links configured in the system will be returned.

Type: Ss7LnkAid
Range: {1-64}
Default value: none

iomPort Identifies the DS1 port on the I/O module.

Type: enum
Range: IOM-{1-17}-PORT-{1-28}
IOM-{1-17}- T3-{1-8}-PORT-{1-28}
IOM-{1-17}- STS1-{1-8}-PORT-{1-28}
Default value: none

chan Identifies the DS0 channel on the port.

Type: integer
Range: {1-24}
Default value: none

lsetId Identifies the link set.

Type: enum
Range: {1-64}
Default value: none

slc Identifies the link selection code, which represents a single link in a specific link set.

Type: integer
Range: {0-15}
Default value: none

mtp2PrflId Identifies the MTP layer 2 profile.

Type: enum
Range: {1-128}
Default value: none

mtp3PrflId Identifies the MTP layer 3 profile.

Type: enum
Range: {1-128}
Default value: none

lnkSpeed Identifies the link speed.

Type: enum
Range: 56K
64K
Default value: 64K

lnkPriority Identifies the link priority level for the link within its link set, with lower numbers indicating higher priority. At least one link in a link set must have priority 0 to enable call routing over the link set. Multiple priorities within a link set must be contiguous.

Type: enum
Range: {0-3}
Default value: 0

congLvl1 Identifies the onset threshold for congestion level 1 in MTP3. It is not activated until the number of messages queued at MTP2 reaches 250.

Type: integer
Range: {1-65536}
Default value: 250

congLvl2 Identifies the onset threshold for congestion level 2 in MTP3. It is not activated until the number of messages queued at MTP2 reaches 250 and the number of messages queued at MTP3 reaches the value specified for *congestionThreshold1*.

Type: integer
Range: {1-65536}
Default value: 500

congLvl3 Identifies the onset threshold for congestion level 3 in MTP3. It is not activated until the number of messages queued at MTP2 reaches 250 and the number of messages queued at MTP3 reaches the value specified for *congestionThreshold2*.

Type: integer
Range: {1-65536}
Default value: 750

enableMtp3T31 Identifies whether congestion timer T31 is enabled for congestion level 1.

Type: BoolYN
Range: N = T31 not enabled
Y = T31 enabled
Default value: Y

resetMtp3T31 Identifies whether congestion timer T31 is reset when the congestion level increases.

Type: BoolYN
Range: N = T31 not reset
Y = T31 reset
Default value: N

Input Examples:

```
DLT-SLK::1;

ED-SLK::1:::MTP2PRFLID=1,SLC=1,MTP3PRFLID=1,
   CONGLVL1=250,CONGLVL2=500,CONGLVL3=750,
   ENABLEMTPT31=Y,RESETMTP3T31=Y;

ENT-SLK::1:::IOMPORT=IOM-1-PORT-1,CHAN=24,LSETID=1,
   SLC=0,MTP2PRFLID=1,MTP3PRFLID=1,LNKSPEED=64K,
   LNKPRIORITY=0,CONGLVL1=250,CONGLVL2=500,
   CONGLVL3=750,ENABLEMTPT31=Y,RESETMTP3T31=Y;

RTRV-SLK::1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:IOMPORT=IOM-1-PORT-1,CHAN=24,LSETID=1,SLC=0,
      MTP2PRFLID=1,MTP3PRFLID=1,LNKSPEED=64K,
      LNKPRIORITY=0,CONGLVL1=250,CONGLVL2=500,
      CONGLVL3=750,ENABLEMTPT31=Y,RESETMTP3T31=Y"
;
```

Related Commands:

```
ED-STATE-SLK            INIT-REG-SLK
RTRV-PM-SLK             RTRV-STATUS-SLK
```

ED-STATE-LSET

Command:

ED-STATE-LSET: Edit State Link Set

Description:

ED-STATE-LSET lets the user change the state of a link set.

Category: Signaling **Security:** SA

Input Format:

```
ED-STATE-LSET:[TID]:<lsetId>:[CTAG]::<pst>;
```

Output Format: none

Parameters:

lsetId Identifies the link set.

Type: LsetAid
Range: {1-64}
Default value: none

pst Identifies the primary state of a signaling link.

Type: enum
Range: IS = In-service
OOS = Out-of-service
Default value: none

Input Example:

```
ED-STATE-LSET::1:::IS;
```

Related Messages:

RTRV-STATUS-LSET

ED-STATE-SLK

Command:

ED-STATE-SLK: Edit State Signaling Link

Description:

ED-STATE-SLK lets the user change the state of a signaling link.

Category: Signaling **Security:** SA

Input Format:

```
ED-STATE-SLK:[TID]:<lsetId>:[CTAG]::<pst>;
```

Output Format: none

Input Parameters:

ss7LnkId Identifies the signaling link.

Type: LsetAid
Range: {1-64}
Default value: none

pst Identifies the state of the signaling link.

Type: enum
Range: INH = Inhibited
IS = In service
OOS = Out of service
UNINH = Uninhibited
Default value: none

Input Example:

```
ED-STATE-SLK::1:::IS;
```

Related Messages:

RTRV-STATUS-SLK

INIT-REG-DPC / RTRV-PM-DPC

Commands:

INIT-REG-DPC: Initialize Register Destination Point Code

RTRV-PM-DPC: Retrieve Performance Monitors Destination Point Code

Descriptions:

INIT-REG-DPC lets the user clear the counters for statistics gathered from a destination point code.

RTRV-PM-DPC lets the user retrieve current and historical performance data gathered from a destination point code.

Category: Signaling **Security:** NSA for INIT-REG, View for RTRV-PM

Input Formats:

```
INIT-REG-DPC:[TID]:<ss7Pc>:[CTAG]::<montype>,
   [<monval>],[<locn>],[<dirn>];
```

```
RTRV-PM-DPC:[TID]:<ss7Pc>:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<ss7Pc>:<montype>,<monval>,<monlev>,<locn>,<dirn>"
;
```

Parameters:

ss7Pc Identifies the AID as a destination point code.

Type: Ss7PcAid
Range: {0-255}-{0-255}-{0-255}
Default value: none

montype Identifies the registers (for a type of monitored parameter) to initialize or from which to retrieve performance data. "ALL" is the only valid input value.

Type: enum
Range: ALL = All types
DURRTEUNAV = Duration in minutes of route unavailability
LASTINITNA = Number of minutes since initialization of all counters for which there is no direction (neither RCV nor TRMT)
LASTINITRCV = Number of minutes since initialization of all RCV (receive) counters
LASTINITTRMT = Number of minutes since initialization of all TRMT (transmit) counters
RTECONGTSTRX = Number of route set congestion test messages received
RTECONGTSTTX = Number of route set congestion test messages transmitted
RTETSTRX = Number of route set test messages received
RTETSTTX = Number of route set test messages transmitted
RTEUNAV = Number of times route became unavailable
SIFOCTPRTETX = Number of SIF (Service Information Field) octets transmitted per route
SIOOCTPRTETX = Number of SIO (Service Indicator Octet) octets transmitted per route
TXALLWRX = Number of transfer allowed messages received
TXALLWTX = Number of transfer allowed messages transmitted
TXPROHIBRX = Number of transfer prohibited messages received
TXPROHIBTX = Number of transfer prohibited messages transmitted
TXRESTRICTRX = Number of transfer restricted messages received
TXRESTRICTTX = Number of transfer restricted messages transmitted
Default value: none

monval Monitored value is either the measured value of the monitored parameter, or the value to which the register identified by *montype* has been initialized. The value is in the form of numeric counts or rates. The value "0" is currently the only acceptable input value.

Type: integer
Range: {0 – 4294967295}
Default value: 0

monlev Identifies the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

locn Identifies the location of the storage counters to initialize or from which to retrieve performance data. Currently only NEND is supported.

Type: enum
Range: NEND = near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters. This parameter is not supported presently; leave it blank.

Type: enum
Range: ALL = All directions
NA = Direction not applicable
RCV = Receive direction only
TRMT = Transmit direction only
Default value: ALL

Input Examples:

```
INIT-REG-DPC::3-4-5:::ALL;
RTRV-PM-DPC;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "001-001-001:RTETSTTX,0,1-UP,NEND,ALL"
   "001-001-001:RTECONGTSTTX,0,1-UP,NEND,ALL"
   "001-001-001:TXPROHIBTX,0,1-UP,NEND,ALL"
   "001-001-001:TXRESTRICTTX,0,1-UP,NEND,ALL"
   "001-001-001:TXALLWTX,0,1-UP,NEND,ALL"
   "001-001-001:SIFOCTPRTETX,0,1-UP,NEND,ALL"
   "001-001-001:SIOOCTPRTETX,0,1-UP,NEND,ALL"
   "001-001-001:LASTINITTRMT,33,1-UP,NEND,ALL"
   "001-001-001:RTETSTRX,0,1-UP,NEND,ALL"
   "001-001-001:RTECONGTSTRX,0,1-UP,NEND,ALL"
;
```

Related Commands: none

INIT-REG-ISUPMSG / RTRV-PM-ISUPMSG

Commands:

INIT-REG-ISUPMSG: Initialize Register ISUP Messages

RTRV-PM-ISUPMSG: Retrieve Performance Monitors ISUP Messages

Descriptions:

INIT-REG-ISUPMSG lets the user clear the counters for ISUP message statistics received from a destination point code.

RTRV-PM-ISUPMSG lets the user retrieve current and historical performance data for ISUP messages received from a destination point code.

Category: Signaling **Security:** NSA for INIT-REG, View for RTRV-PM

Input Formats:

```
INIT-REG-ISUPMSG:[TID]:<ss7Pc>:[CTAG]::<montype>,
   [<monval>],[<locn>],[<dirn>];
```

```
RTRV-PM-ISUPMSG:[TID]:<ss7Pc>:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<ss7Pc>:<montype>,<monval>,<monlev>,<locn>,<dirn>"
;
```

Parameters:

ss7Pc Identifies the AID as a destination point code.

Type: PcAid
Range: {0-255}-{0-255}-{0-255}
Default value: none

montype Identifies the registers (for a type of monitored parameter) to initialize or from which to retrieve performance data. "ALL" is the only valid input value.

Type: enum

Range: ACMRX = Number of address complete messages received
ACMTX = Number of address complete messages transmitted
ALL = All types
ANMRX = Number of answer messages received
ANMTX = Number of address complete messages transmitted
BLARX = Number of blocking acknowledgement messages received
BLATX = Number of blocking acknowledgement messages transmitted
BLORX = Number of blocking messages received
BLOTX = Number of blocking messages transmitted
CCRRX = Number of continuity check request messages received
CCRTX = Number of continuity check request messages transmitted
CFNRX = Number of confusion messages received
CFNTX = Number of confusion messages transmitted
CGBARX = Number of circuit group blocking acknowledgement messages received
CGBATX = Number of circuit group blocking acknowledgement messages transmitted
CGBRX = Number of circuit group blocking messages received
CGBTX = Number of circuit group blocking messages transmitted
CGUARX = Number of circuit group unblocking acknowledgement messages received
CGUATX = Number of circuit group unblocking acknowledgement messages transmitted
CGURX = Number of circuit group unblocking messages received
CGUTX = Number of circuit group unblocking messages transmitted
CONRX = Number of connect messages received
CONTX = Number of connect messages transmitted
COTRX = Number of continuity messages received
COTTX = Number of continuity messages transmitted
CPGRX = Number of call progress messages received
CPGTX = Number of call progress messages transmitted
CQMRX = Number of circuit query messages transmitted

CQMTX = Number of circuit query messages transmitted
CQRRX = Number of circuit query acknowledgement messages received
CQRTX = Number of circuit query acknowledgement messages transmitted
CRARX = Number of circuit reservation acknowledgement messages received
CRATX = Number of circuit reservation acknowledgement messages transmitted
CRGRX = Number of charging messages received
CRGTX = Number of charging messages transmitted
CRMRX = Number of circuit reservation messages received
CRMTX = Number of circuit reservation messages transmitted
CVRRX = Number of circuit validation response messages received
CVRTX = Number of circuit validation response messages transmitted
CVTRX = Number of circuit validation messages received
CVTTX = Number of circuit validation messages transmitted
EXMRX = Number of exit messages received
EXMTX = Number of exit messages transmitted
FAARX = Number of facility accepted messages received
FAATX = Number of facility accepted messages transmitted
FACRX = Number of facility messages received
FACTX = Number of facility messages transmitted
FARMSGRX = Number of facility request messages received
FARMSGTX = Number of facility request messages transmitted
FOTRX = Number of forward transfer messages received
FOTTX = Number of forward transfer messages transmitted
FRJRX = Number of facility rejected messages received
FRJTX = Number of facility rejected messages transmitted
GRARX = Number of circuit group reset acknowledgement messages received
GRATX = Number of circuit group reset acknowledgement messages transmitted
GRSRX = Number of circuit group reset messages received
GRSTX = Number of circuit group reset messages transmitted
IAMRX = Number of initial address messages received
IAMTX = Number of initial address messages transmitted
IDRRX = Number of identification request messages received

IDRTX = Number of identification request messages transmitted
INFRX = Number of information messages received
INFTX = Number of information messages transmitted
INRRX = Number of information request messages received
INRTX = Number of information request messages transmitted
IRSRX = Number of identification response messages received
IRSTX = Number of identification response messages transmitted
LASTINITRCV = Number of minutes since initialization of all RCV (receive) counters
LASTINITTRMT = Number of minutes since initialization of all TRMT (transmit) counters
LOPRX = Number of loop prevention messages received
LOPTX = Number of loop prevention messages transmitted
LPARX = Number of loopback acknowledgement messages received
LPATX = Number of loopback acknowledgement messages transmitted
NRMRX = Number of network resource management messages received
NRMTX = Number of network resource management messages transmitted
OLMRX = Number of overload messages received
OLMTX = Number of overload messages transmitted
PAMRX = Number of pass-along messages received
PAMTX = Number of pass-along messages transmitted
RELRX = Number of release messages received
RELTX = Number of release messages transmitted
RESRX = Number of resume messages received
RESTX = Number of resume messages transmitted
RLCRX = Number of release complete messages received
RLCTX = Number of release complete messages transmitted
RSCRX = Number of reset messages received
RSCTX = Number of reset messages transmitted
SAMRX = Number of subsequent address messages received
SAMTX = Number of subsequent address messages transmitted
SGMRX = Number of segmentation messages received
SGMTX = Number of segmentation messages transmitted
SUSRX = Number of suspend messages received
SUSTX = Number of suspend messages transmitted
TOTALRX = Total number of messages received
TOTALTX = Total number of messages transmitted

UBARX = Number of unblocking acknowledgement messages received
UBATX = Number of unblocking acknowledgement messages transmitted
UBLRX = Number of unblocking messages received
UBLTX = Number of unblocking messages transmitted
UCICRX = Number of unequipped CIC messages received
UCICTX = Number of unequipped CIC messages transmitted
UPARX = Number of user part available messages received
UPATX = Number of user part available messages transmitted
UPTRX = Number of user part test messages received
UPTTX = Number of user part test messages transmitted
USRRX = Number of user-to-user messages received
USRTX = Number of user-to-user messages transmitted

Default value: none

monval Monitored value is either the measured value of the monitored parameter, or the value to which the register identified by *montype* has been initialized. The value is in the form of numeric counts or rates. The value "0" is currently the only acceptable input value.

Type: integer
Range: {0 – 4294967295}
Default value: 0

monlev Identifies the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

locn Identifies the location of the storage counters to initialize or from which to retrieve performance data. Currently only NEND is supported.

Type: enum
Range: NEND = near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters. This parameter is not supported presently; leave it blank.

Type: enum
Range: ALL = All directions
NA = Direction not applicable
RCV = Receive direction only
TRMT = Transmit direction only
Default value: ALL

Input Examples:

```
INIT-REG-ISUPMSG::1-1-1:::ALL;
RTRV-PM-ISUPMSG;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "001-001-001:CGUATX,0,1-UP,NEND,ALL"
   "001-001-001:CONTX,0,1-UP,NEND,ALL"
   "001-001-001:COTTX,0,1-UP,NEND,ALL"
   "001-001-001:CPGTX,0,1-UP,NEND,ALL"
   "001-001-001:CQMTX,0,1-UP,NEND,ALL"
   "001-001-001:CQRTX,0,1-UP,NEND,ALL"
   "001-001-001:CRGTX,0,1-UP,NEND,ALL"
   "001-001-001:FAATX,0,1-UP,NEND,ALL"
   "001-001-001:FACTX,0,1-UP,NEND,ALL"
   "001-001-001:FARMSGTX,0,1-UP,NEND,ALL"
   "001-001-001:FOTTX,0,1-UP,NEND,ALL"
   "001-001-001:FRJTX,0,1-UP,NEND,ALL"
   "001-001-001:GRATX,0,1-UP,NEND,ALL"
   "001-001-001:GRSTX,0,1-UP,NEND,ALL"
   "001-001-001:IAMTX,0,1-UP,NEND,ALL"
   "001-001-001:IDRTX,0,1-UP,NEND,ALL"
   "001-001-001:INFTX,0,1-UP,NEND,ALL"
   "001-001-001:INRTX,0,1-UP,NEND,ALL"
   "001-001-001:IRSTX,0,1-UP,NEND,ALL"
   "001-001-001:LOPTX,0,1-UP,NEND,ALL"
   "001-001-001:LPATX,0,1-UP,NEND,ALL"
   "001-001-001:NRMTX,0,1-UP,NEND,ALL"
   "001-001-001:OLMTX,0,1-UP,NEND,ALL"
   "001-001-001:PAMTX,0,1-UP,NEND,ALL"
   "001-001-001:RELTX,0,1-UP,NEND,ALL"
   "001-001-001:RESTX,0,1-UP,NEND,ALL"
   "001-001-001:RLCTX,0,1-UP,NEND,ALL"
   "001-001-001:RSCTX,0,1-UP,NEND,ALL"
```

```
"001-001-001:SAMTX,0,1-UP,NEND,ALL"
"001-001-001:SGMTX,0,1-UP,NEND,ALL"
"001-001-001:SUSTX,0,1-UP,NEND,ALL"
"001-001-001:UBATX,0,1-UP,NEND,ALL"
"001-001-001:UBLTX,0,1-UP,NEND,ALL"
"001-001-001:UCICTX,0,1-UP,NEND,ALL"
"001-001-001:UPATX,0,1-UP,NEND,ALL"
"001-001-001:UPTTX,0,1-UP,NEND,ALL"
"001-001-001:USRTX,0,1-UP,NEND,ALL"
"001-001-001:CRATX,0,1-UP,NEND,ALL"
"001-001-001:CRMTX,0,1-UP,NEND,ALL"
"001-001-001:CVRTX,0,1-UP,NEND,ALL"
"001-001-001:CVTTX,0,1-UP,NEND,ALL"
"001-001-001:EXMTX,0,1-UP,NEND,ALL"
"001-001-001:LASTINITTRMT,27,1-UP,NEND,ALL"
"001-001-001:TOTALRX,0,1-UP,NEND,ALL"
"001-001-001:ACMRX,0,1-UP,NEND,ALL"
"001-001-001:ANMRX,0,1-UP,NEND,ALL"
"001-001-001:BLARX,0,1-UP,NEND,ALL"
"001-001-001:BLORX,0,1-UP,NEND,ALL"
"001-001-001:CCRRX,0,1-UP,NEND,ALL"
"001-001-001:CFNRX,0,1-UP,NEND,ALL"
"001-001-001:CGBRX,0,1-UP,NEND,ALL"
"001-001-001:CGBARX,0,1-UP,NEND,ALL"
"001-001-001:CGURX,0,1-UP,NEND,ALL"
"001-001-001:CGUARX,0,1-UP,NEND,ALL"
"001-001-001:CONRX,0,1-UP,NEND,ALL"
"001-001-001:COTRX,0,1-UP,NEND,ALL"
"001-001-001:CPGRX,0,1-UP,NEND,ALL"
"001-001-001:CQMRX,0,1-UP,NEND,ALL"
"001-001-001:CQRRX,0,1-UP,NEND,ALL"
"001-001-001:CRGRX,0,1-UP,NEND,ALL"
"001-001-001:FAARX,0,1-UP,NEND,ALL"
"001-001-001:FACRX,0,1-UP,NEND,ALL"
"001-001-001:FARMSGRX,0,1-UP,NEND,ALL"
"001-001-001:FOTRX,0,1-UP,NEND,ALL"
"001-001-001:FRJRX,0,1-UP,NEND,ALL"
"001-001-001:GRARX,0,1-UP,NEND,ALL"
"001-001-001:GRSRX,0,1-UP,NEND,ALL"
"001-001-001:IAMRX,0,1-UP,NEND,ALL"
"001-001-001:IDRRX,0,1-UP,NEND,ALL"
"001-001-001:INFRX,0,1-UP,NEND,ALL"
"001-001-001:INRRX,0,1-UP,NEND,ALL"
"001-001-001:IRSRX,0,1-UP,NEND,ALL"
"001-001-001:LOPRX,0,1-UP,NEND,ALL"
"001-001-001:LPARX,0,1-UP,NEND,ALL"
"001-001-001:NRMRX,0,1-UP,NEND,ALL"
```

```
    "001-001-001:OLMRX,0,1-UP,NEND,ALL"
    "001-001-001:PAMRX,0,1-UP,NEND,ALL"
    "001-001-001:RELRX,0,1-UP,NEND,ALL"
    "001-001-001:RESRX,0,1-UP,NEND,ALL"
    "001-001-001:RLCRX,0,1-UP,NEND,ALL"
    "001-001-001:RSCRX,0,1-UP,NEND,ALL"
    "001-001-001:SAMRX,0,1-UP,NEND,ALL"
    "001-001-001:SGMRX,0,1-UP,NEND,ALL"
    "001-001-001:SUSRX,0,1-UP,NEND,ALL"
    "001-001-001:UBARX,0,1-UP,NEND,ALL"
    "001-001-001:UBLRX,0,1-UP,NEND,ALL"
    "001-001-001:UCICRX,0,1-UP,NEND,ALL"
    "001-001-001:UPARX,0,1-UP,NEND,ALL"
    "001-001-001:UPTRX,0,1-UP,NEND,ALL"
    "001-001-001:USRRX,0,1-UP,NEND,ALL"
    "001-001-001:CRARX,0,1-UP,NEND,ALL"
    "001-001-001:CRMRX,0,1-UP,NEND,ALL"
    "001-001-001:CVRRX,0,1-UP,NEND,ALL"
    "001-001-001:CVTRX,0,1-UP,NEND,ALL"
    "001-001-001:EXMRX,0,1-UP,NEND,ALL"
    "001-001-001:LASTINITRCV,27,1-UP,NEND,ALL"
;
```

Related Commands:

RTRV-STATS-ISUPMSG

INIT-REG-LSET / RTRV-PM-LSET

Commands:

INIT-REG-LSET: Initialize Register Link Set

RTRV-PM-LSET: Retrieve Performance Monitors Link Set

Descriptions:

INIT-REG-LSET lets the user clear the counters for statistics gathered from a link set.

RTRV-PM-LSET lets the user retrieve current and historical performance data gathered from a link set.

Category: Signaling **Security:** NSA for INIT-REG, View for RTRV-PM

Input Formats:

```
INIT-REG-LSET:[TID]:<lsetId>:[CTAG]::[<montype>],
   [<monval>],[<locn>],[<dirn>];
RTRV-PM-LSET:[TID]:<lsetId>:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<lsetId>:<montype>,<monval>,<monlev>,<locn>,
      <dirn>"
;
```

Parameters:

lsetId Identifies the AID as a link set.

Type: LsetId
Range: {1-64}
Default value: none

montype Identifies the registers (for a type of monitored parameter) to initialize or from which to retrieve performance data. “ALL” is the only valid input value.

Type: enum
Range: ALL = All types
DURLSETUNAV = Duration in minutes of link set unavailability
LASTINITNA = Number of minutes since initialization of all counters for which there is no direction (neither RCV nor TRMT)
STARTLSETFAIL = Number of times the link set has failed since initialization of all counters
STOPLSETFAIL = Number of times the link set has become active (after failure) since initialization of all counters
Default value: ALL

monval Monitored value is either the measured value of the monitored parameter, or the value to which the register identified by *montype* has been initialized. The value is in the form of numeric counts or rates. The value “0” is currently the only acceptable input value.

Type: integer
Range: {0 – 4294967295}
Default value: 0

monlev Identifies the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

locn Identifies the location of the storage counters to initialize or from which to retrieve performance data. Currently only NEND is supported.

Type: enum
Range: NEND = near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters. This parameter is not supported presently; leave it blank.

Type: enum
Range: ALL = All directions
NA = Direction not applicable
RCV = Receive direction only
TRMT = Transmit direction only
Default value: ALL

Input Examples:

```
INIT-REG-LSET::1:::ALL;
RTRV-PM-LSET;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:STARTLSETFAIL,1,1-UP,NEND,ALL"
   "1:STOPLSETFAIL,2,1-UP,NEND,ALL"
   "1:LASTINITNA,101,1-UP,NEND,ALL"
   "1:DURLSETUNAV,7,1-UP,NEND,ALL"
;
```

Related Commands:

```
RTRV-STATUS-LSET
```

INIT-REG-MTP3 / RTRV-PM-MTP3

Commands:

INIT-REG-MTP3: Initialize Register MTP3

RTRV-PM-MTP3: Retrieve Performance Monitors MTP3

Descriptions:

INIT-REG-MTP3 lets the user clear the counters for statistics concerning MTP3 signaling links.

RTRV-PM-MTP3 lets the user retrieve current and historical performance data gathered from MTP3 signaling links.

Category: Signaling **Security:** NSA for INIT-REG, View for RTRV-PM

Input Formats:

```
INIT-REG-MTP3:[TID]:[<src>]:[CTAG]::<montype>,
   [<monval>],[<locn>],[<dirn>];
```

```
RTRV-PM-MTP3:[TID]:[<src>]:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<src>:<montype>,<monval>,<monlev>,<locn>,<dirn>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

montype Identifies the registers (for a type of monitored parameter) to initialize or from which to retrieve performance data. "ALL" is the only valid input value.

Type: enum
Range: ALL = All types
LASTINITNA = Number of minutes since initialization of all counters for which there is no direction (neither RCV nor TRMT)
LASTINITRCV = Number of minutes since initialization of all RCV (receive) counters
LASTINITTRMT = Number of minutes since initialization of all TRMT (transmit) counters
MSUDROPRTEERR = Number of message signaling units dropped due to a routing data error
MTPRESTARTS = Number of MTP3 restarts
TRARSTRTALLWRX = Number of traffic restart allowed messages received
TRARSTRTALLWTX = Number of traffic restart allowed messages transmitted
TRARSTRTWAITRX = Number of traffic restart waiting messages received
TRARSTRTWAITTX = Number of traffic restart waiting messages transmitted
USRUNAVRX = Number of user part unavailable messages received
USRUNAVTX = Number of user part unavailable messages transmitted
Default value: none

monval Monitored value is either the measured value of the monitored parameter, or the value to which the register identified by *montype* has been initialized. The value is in the form of numeric counts or rates. The value "0" is currently the only acceptable input value.

Type: integer
Range: {0 – 4294967295}
Default value: 0

monlev Identifies the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

locn Identifies the location of the storage counters to initialize or from which to retrieve performance data. Currently only NEND is supported.

Type: enum
Range: NEND = near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters. This parameter is not supported presently; leave it blank.

Type: enum
Range: ALL = All directions
NA = Direction not applicable
RCV = Receive direction only
TRMT = Transmit direction only
Default value: ALL

Input Examples:

```
INIT-REG-MTP3:::::ALL;

RTRV-PM-MTP3;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:USRUNAVTX,0,1-UP,NEND,ALL"
   "COM:TRARSTRTALLWTX,0,1-UP,NEND,ALL"
   "COM:TRARSTRTWAITTX,0,1-UP,NEND,ALL"
   "COM:LASTINITTRMT,16,1-UP,NEND,ALL"
   "COM:USRUNAVRX,0,1-UP,NEND,ALL"
   "COM:TRARSTRTALLWRX,0,1-UP,NEND,ALL"
   "COM:TRARSTRTWAITRX,0,1-UP,NEND,ALL"
   "COM:LASTINITRCV,16,1-UP,NEND,ALL"
   "COM:MSUDROPRTEERR,0,1-UP,NEND,ALL"
   "COM:MTPRESTARTS,0,1-UP,NEND,ALL"
   "COM:LASTINITNA,16,1-UP,NEND,ALL"
;
```

Related Commands: none

INIT-REG-SLK / RTRV-PM-SLK

Commands:

INIT-REG-SLK: Initialize Register Signaling Link

RTRV-PM-SLK: Retrieve Performance Monitors Signaling Link

Descriptions:

INIT-REG-SLK lets the user clear the counters for statistics gathered from a signaling link.

RTRV-PM-SLK lets the user retrieve current and historical performance data gathered from a signaling link. MTP Layer 3 packet traffic statistics are captured and stored based on the maximum value reached (High Water Mark or HWM) for 100 one-minute, 50 five-minute and 20 15-minute periods.

Category: Signaling **Security:** NSA for INIT-REG, View for RTRV-PM

Input Formats:

```
INIT-REG-SLK:[TID]:<ss7LnkId>:[CTAG]::<montype>,
   <monval>;
RTRV-PM-SLK:[TID]:<ss7LnkId>:[CTAG]::[<montype>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<ss7LnkId>:<montype>,<monval>"
;
```

Parameters:

ss7LnkId Identifies the AID as a signaling link.

Type: Ss7LnkAid
Range: {1-64}
Default value: none

montype Identifies (in INIT-REG) the registers (for a type of monitored parameter) to initialize for the specified signaling link.

Type: enum

Range: HWM15MINCFG = Identifies whether maximum-value-reached (HWM) calculations for 15-minute periods are done. A value of “0” means “no” and a value of “1” means “yes”.

HWM1MINCFG = Identifies whether maximum-value-reached (HWM) calculations for one-minute periods are done. A value of “0” means “no” and a value of “1” means “yes”.

HWM5MINCFG = Identifies whether maximum-value-reached (HWM) calculations for five-minute periods are done. A value of “0” means “no” and a value of “1” means “yes”.

Default value: none

montype Identifies (in RTRV-PM) the registers (for a type of monitored parameter) from which to retrieve performance data for the specified signaling link.

Type: enum

Range: HWM = All high water marks

HWM15MINCFG = Identifies whether HWM calculations for 15-minute periods are done. A value of “0” means “no” and a value of “1” means “yes”.

HWM15MINLINKUTIL = HWM for link utilization reached in 20 15-minute periods (calculated as a percentage using total MSU octets received and transmitted)

HWM15MINLINKUTILAGE = The 15-minute period in which the HWM for link utilization occurred (“1” indicates the most recent period, “20” the least).

HWM15MINMSURX = Maximum number of message signal units received for 15-minute periods.

HWM15MINMSURXAGE = The 15-minute period in which the HWM for message signal units received occurred (“1” indicates the most recent period, “20” the least).

HWM15MINMSUTX = Maximum number of message signal units transmitted for 15-minute periods.

HWM15MINMSUTXAGE = The 15-minute period in which the HWM for message signal units transmitted occurred (“1” indicates the most recent period, “20” the least).

HWM15MINOCTRX = Maximum number of octets received for 15-minute periods.

HWM15MINOCTRXAGE = The 15-minute period in which the HWM for octets received occurred (“1” indicates the most recent period, “20” the least).

HWM15MINOCTTX = Maximum number of octets transmitted for 15-minute periods.

HWM15MINOCTTXAGE = The 15-minute period in which the HWM for octets transmitted occurred (“1” indicates the most recent period, “20” the least).

HWM1MINCFG = Identifies whether HWM calculations for one-minute periods are done. A value of “0” means “no” and a value of “1” means “yes”.

HWM1MINLINKUTIL = HWM for link utilization reached in 100 one-minute periods (calculated as a percentage using total MSU octets received and transmitted)

HWM1MINLINKUTILAGE = The one-minute period in which the HWM for link utilization occurred (“1” indicates the most recent period, “100” the least).

HWM1MINMSURX = Maximum number of message signal units received for one-minute periods.

HWM1MINMSURXAGE = The one-minute period in which the HWM for message signal units received occurred (“1” indicates the most recent period, “100” the least).

HWM1MINMSUTX = Maximum number of message signal units transmitted for one-minute periods.

HWM1MINMSUTXAGE = The one-minute period in which the HWM for message signal units transmitted occurred (“1” indicates the most recent period, “100” the least).

HWM1MINOCTRX = Maximum number of octets received for one-minute periods.

HWM1MINOCTRXAGE = The one-minute period in which the HWM for octets received occurred (“1” indicates the most recent period, “100” the least).

HWM1MINOCTTX = Maximum number of octets transmitted for one-minute periods.

HWM1MINOCTTXAGE = The one-minute period in which the HWM for octets transmitted occurred (“1” indicates the most recent period, “100” the least).

HWM5MINCFG = Identifies whether HWM calculations for five-minute periods are done. A value of “0” means “no” and a value of “1” means “yes”.

HWM5MINLINKUTIL = HWM for link utilization reached in 50 five-minute periods (calculated as a percentage using total MSU octets received and transmitted).

HWM5MINLINKUTILAGE = The five-minute period in which the HWM for link utilization occurred (“1” indicates the most recent period, “50” the least).

HWM5MINMSURX = Maximum number of message signal units received for five-minute periods.

HWM5MINMSURXAGE = The five-minute period in which the HWM for message signal units received occurred ("1" indicates the most recent period, "50" the least).
HWM5MINMSUTX = Maximum number of message signal units transmitted for five-minute periods.
HWM5MINMSUTXAGE = The five-minute period in which the HWM for message signal units transmitted occurred ("1" indicates the most recent period, "50" the least).
HWM5MINOCTRX = Maximum number of octets received for five-minute periods.
HWM5MINOCTRXAGE = The five-minute period in which the HWM for octets received occurred ("1" indicates the most recent period, "50" the least).
HWM5MINOCTTX = Maximum number of octets transmitted for five-minute periods.
HWM5MINOCTTXAGE = The five-minute period in which the HWM for octets transmitted occurred ("1" indicates the most recent period, "50" the least).

Default value: HWM

monval Monitored value is either the measured value of the monitored parameter, or the value to which the register identified by *montype* has been initialized.

Type: enum
Range: {0,1}
Default value: none

Input Examples:

```
INIT-REG-SLK::1:::HWM15MIN,0;
RTRV-PM-SLK::1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:HWM15MINCFG,0"
   "1:HWM1MINCFG,0"
   "1:HWM5MINCFG,0""
;
```

Related Commands: none

INIT-REG-SLKL2 / RTRV-PM-SLKL2

Commands:

INIT-REG-SLKL2: Initialize Register SLKL2

RTRV-PM-SLKL2: Retrieve Performance Monitors SLKL2

Descriptions:

INIT-REG-SLKL2 lets the user clear the counters for statistics gathered from a MTP2 signaling link.

RTRV-PM-SLKL2 lets the user retrieve current and historical performance data gathered from an MTP2 signaling link.

Category: Signaling **Security:** NSA for INIT-REG, View for RTRV-PM

Input Formats:

```
INIT-REG-SLKL2:[TID]:<ss7LnkId>:[CTAG]::<montype>,
   [<monval>],[<locn>],[<dirn>];
```

```
RTRV-PM-SLKL2:[TID]:<ss7LnkId>:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<ss7LnkId>:<montype>,<monval>,<monlev>,<locn>,
      <dirn>"
;
```

Parameters:

ss7LnkId Identifies the AID as an MTP Layer 2 signaling link.

Type: Ss7LnkAid
Range: {1-64}
Default value: none

montype Identifies the registers (for a type of monitored parameter) to initialize or from which to retrieve performance data. "ALL" is the only valid input value.

Type: enum

Range: ALL = All types
DURLNKINSRV = Number of minutes the link has been in-service
DURLNKLOCCONG = Number of minutes the link has been locally congested
FISURX = Number of FISUs received on the link
FISUTX = Number of FISUs transmitted on the link
LASTINITNA = Number of minutes since initialization of all counters for which there is no direction (RCV or TRMT)
LASTINITRCV = Number of minutes since initialization of all RCV (receive) counters
LASTINITTRMT = Number of minutes since initialization of all TRMT (transmit) counters
LNKFAILABNRML = Number of times link has failed due to abnormal FIBR/BSNR
LNKFAILALIGN = Number of times link has failed due to inability to complete alignment procedure
LNKFAILCONG = Number of times link has failed due to excessive congestion
LNKFAILDLYACK = Number of times link has failed due to delay of acknowledgement messages
LNKFAILERR = Number of times link has failed due to excessive error rate
LNKFAILFORALL = Number of times link has failed for any reason
LSSURX = Number of LSSUs received on the link
LSSUTX = Number of LSSUs transmitted on the link
MSURX = Number of message signal units received on the link
MSUTX = Number of message signal units transmitted on the link
NEGACKRX = Number of times negative acknowledgment messages received on the link
OCTRETX = Number of octets retransmitted on the link
SIFSIOOCTRX = Number of SIF/SIO (Service Information Field / Service Indicator Octet) octets received on the link
SIFSIOOCTTX = Number of SIF/SIO (Service Information Field / Service Indicator Octet) octets transmitted on the link
SIGUNITRXERR = Number of signaling units received in error on the link

Default value: none

monval Monitored value is either the measured value of the monitored parameter, or the value to which the register identified by *montype* has been initialized. The value is in the form of numeric counts or rates. The value "0" is currently the only acceptable input value.

Type: integer
Range: {0 – 4294967295}
Default value: 0

monlev Identifies the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

locn Identifies the location of the storage counters to initialize or from which to retrieve performance data. Currently only NEND is supported.

Type: enum
Range: NEND = near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters. This parameter is not supported presently; leave it blank.

Type: enum
Range: ALL = All directions
NA = Direction not applicable
RCV = Receive direction only
TRMT = Transmit direction only
Default value: ALL

Input Examples:

```
INIT-REG-SLKL2::1:::ALL;
RTRV-PM-SLKL2::1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:IFSIOOCTTX,1,1-UP,NEND,ALL"
   "1:OCTRETX,0,1-UP,NEND,ALL"
   "1:MSUTX,130,1-UP,NEND,ALL"
   "1:LSSUTX,3,1-UP,NEND,ALL"
   "1:FISUTX,130,1-UP,NEND,ALL"
   "1:LASTINITTRMT,71,1-UP,NEND,ALL"
   "1:SIGUNITRXERR,0,1-UP,NEND,ALL"
   "1:NEGACKRX,0,1-UP,NEND,ALL"
   "1:SIFSIOOCTRX,3,1-UP,NEND,ALL"
   "1:MSURX,129,1-UP,NEND,ALL"

   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:LSSURX,7,1-UP,NEND,ALL"
   "1:FISURX,516,1-UP,NEND,ALL"
   "1:LASTINITTRCV,71,1-UP,NEND,ALL"
   "1:LNKFAILFORALL,0,1-UP,NEND,ALL"
   "1:LNKFAILABNRML,0,1-UP,NEND,ALL"
   "1:LNKFAILDLYACK,0,1-UP,NEND,ALL"
   "1:LNKFAILERR,0,1-UP,NEND,ALL"
   "1:LNKFAILCONG,0,1-UP,NEND,ALL"
   "1:LNKFAILALIGN,0,1-UP,NEND,ALL"
   "1:LASTINITNA,71,1-UP,NEND,ALL"

   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:DURLNKINSRV,42,1-UP,NEND,ALL"
   "1:DURLNKLOCCONG,0,1-UP,NEND,ALL"
;
```

Related Commands: none

INIT-REG-SLKL3 / RTRV-PM-SLKL3

Commands:

INIT-REG-SLKL3: Initialize Register SLKL3

RTRV-PM-SLKL3: Retrieve Performance Monitors SLKL3

Name: INIT-REG-SLKL3: Initialize Register Call Control

Descriptions:

INIT-REG-SLKL3 lets the user clear the counters for statistics gathered from a MTP3 signaling link.

RTRV-PM-SLKL3 lets the user retrieve current and historical performance data gathered from an MTP3 signaling link.

Category: Signaling **Security:** NSA for INIT-REG, View for RTRV-PM

Input Formats:

```
INIT-REG-SLKL3:[TID]:<ss7LnkId>:[CTAG]::<montype>,
   [<monval>],[<locn>],[<dirn>];
RTRV-PM-SLKL3:[TID]:<ss7LnkId>:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<ss7LnkId>:<montype>,<monval>,<monlev>,<locn>,
      <dirn>"
;
```

Parameters:

ss7LnkId Identifies the AID as an MTP 3 signaling link.

Type: Ss7LnkAid
Range: {1-64}
Default value: none

montype Identifies the registers (for a type of monitored parameter) to initialize or from which to retrieve performance data. "ALL" is the only valid input value.

Type: enum

Range: ALL = All types
CHNGBCKACKRX = Number of changeback acknowledgement messages received
CHNGBCKACKTX = Number of changeback acknowledgement messages transmitted
CHNGBCKRX = Number of changeback messages received
CHNGBCKTX = Number of changeback messages transmitted
CHNGOVERACKRX = Number of changeover acknowledgement messages received
CHNGOVERACKTX = Number of changeover acknowledgement messages transmitted
CHNGOVERRX = Number of changeover messages received
CHNGOVERTX = Number of changeover messages transmitted
DUROFLNKCONG = Duration of last link congestion in minutes
DUROFLNKUNAV = Duration of last link unavailability in minutes
EMERGCHNGOVERACKRX = Number of emergency changeover acknowledgement messages received
EMERGCHNGOVERACKTX = Number of emergency changeover acknowledgement messages transmitted
EMERGCHNGOVERRX = Number of emergency changeover messages received
EMERGCHNGOVERTX = Number of emergency changeover messages transmitted
INVPDURX = Number of invalid protocol data units (protocol messages) received
LASTINITNA = Number of minutes since initialization of all counters for which there is no direction (neither RCV nor TRMT)
LASTINITRCV = Number of minutes since initialization of all RCV (receive) counters
LASTINITTRMT = Number of minutes since initialization of all TRMT (transmit) counters
LNKCONACKRX = Number of link connection acknowledgement messages received
LNKCONACKTX = Number of link connection acknowledgement messages transmitted

LNKCONGATTHRSHLD0 = Number of links at congestion level 0
LNKCONGATTHRSHLD1 = Number of links at congestion level 1
LNKCONGATTHRSHLD2 = Number of links at congestion level 2
LNKCONGATTHRSHLD3 = Number of links at congestion level 3
LNKCONORDRX = Number of link connection order messages received
LNKCONORDTX = Number of link connection order messages transmitted
LNKFORCEUNINHRX = Number of link forced uninhibit messages received
LNKFORCEUNINHTX = Number of link forced uninhibit acknowledgement messages transmitted
LNKINHACKRX = Number of link inhibit acknowledgement messages received
LNKINHACKTX = Number of link inhibit acknowledgement messages transmitted
LNKINHDENYRX = Number of link inhibit denied messages received
LNKINHDENYTX = Number of link inhibit denied messages transmitted
LNKINHRX = Number of link inhibit messages received
LNKINHTX = Number of link inhibit messages transmitted
LNKLOCINHTSTRX = Number of link locally inhibited test messages received
LNKLOCINHTSTTX = Number of link locally inhibited test messages transmitted
LNKRMTINHTSTRX = Number of link remotely inhibited test messages received
LNKRMTINHTSTTX = Number of link remotely inhibited test messages transmitted
LNKTSTACKRX = Number of link test acknowledgement messages received
LNKTSTACKTX = Number of link test acknowledgement messages transmitted
LNKTSTRX = Number of link test messages received
LNKTSTTX = Number of link test messages transmitted
LNKUNINHACKRX = Number of link uninhibit acknowledgement messages received
LNKUNINHACKTX = Number of link uninhibit acknowledgement messages transmitted
LNKUNINHRX = Number of link uninhibit messages received

LNKUNINHTX = Number of link uninhibit messages transmitted
MSURX = Number of message signal units received on the link
MSUTX = Number of message signal units transmitted on the link
PRI0DROP = Number of messages with priority 0 dropped
PRI1DROP = Number of messages with priority 1 dropped
PRI2DROP = Number of messages with priority 2 dropped
PRI3DROP = Number of messages with priority 3 dropped
SIFOCTRX = Number of SIF (Service Information Field) octets received on the link
SIFOCTTX = Number of SIF (Service Information Field) octets transmitted on the link
SIOOCTRX = Number of SIO (Service Indicator Octet) octets received on the link
SIOOCTTX = Number of SIO (Service Indicator Octet) octets transmitted on the link
TXCONGDROP = Number of message signal units dropped due to link congestion
TXCTRLRX = Number of transfer controlled messages received
TXCTRLTX = Number of transfer controlled messages transmitted
TXMSGDROP = Number of transmit messages dropped

Default value: none

monval Monitored value is either the measured value of the monitored parameter, or the value to which the register identified by *montype* has been initialized. The value is in the form of numeric counts or rates. The value “0” is currently the only acceptable input value.

Type: integer
Range: {0 – 4294967295}
Default value: 0

monlev Identifies the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

locn Identifies the location of the storage counters to initialize or from which to retrieve performance data. Currently only NEND is supported.

Type: enum
Range: NEND = near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters. This parameter is not supported presently; leave it blank.

Type: enum
Range: ALL = All directions
NA = Direction not applicable
RCV = Receive direction only
TRMT = Transmit direction only
Default value: ALL

Input Examples:

```
INIT-REG-SLKL3::1:::ALL;
RTRV-PM-SLKL3::1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:CHNGOVERTX,0,1-UP,NEND,ALL"
   "1:CHNGOVERACKTX,0,1-UP,NEND,ALL"
   "1:CHNGBCKTX,0,1-UP,NEND,ALL"
   "1:CHNGBCKACKTX,0,1-UP,NEND,ALL"
   "1:EMERGCHNGOVERTX,0,1-UP,NEND,ALL"
   "1:EMERGCHNGOVERACKTX,0,1-UP,NEND,ALL"
   "1:LNKINHTX,0,1-UP,NEND,ALL"
   "1:LNKUNINHTX,0,1-UP,NEND,ALL"
   "1:LNKINHACKTX,0,1-UP,NEND,ALL"
   "1:LNKUNINHACKTX,0,1-UP,NEND,ALL"

   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:LNKINHDENYTX,0,1-UP,NEND,ALL"
   "1:LNKFORCEUNINHTX,0,1-UP,NEND,ALL"
   "1:LNKLOCINHTSTTX,0,1-UP,NEND,ALL"
   "1:LNKRMTINHTSTTX,0,1-UP,NEND,ALL"
   "1:LNKCONORDTX,0,1-UP,NEND,ALL"
   "1:LNKCONACKTX,0,1-UP,NEND,ALL"
   "1:LNKTSTTX,76,1-UP,NEND,ALL"
   "1:LNKTSTACKTX,154,1-UP,NEND,ALL"
```

```
   "1:TXMSGDROP,0,1-UP,NEND,ALL"
   "1:TXCONGDROP,0,1-UP,NEND,ALL"

   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:SIFOCTTX,4456,1-UP,NEND,ALL"
   "1:SIOOCTTX,230,1-UP,NEND,ALL"
   "1:MSUTX,230,1-UP,NEND,ALL"
   "1:LASTINITTRMT,74,1-UP,NEND,ALL"
   "1:CHNGOVERRX,0,1-UP,NEND,ALL"
   "1:CHNGOVERACKRX,0,1-UP,NEND,ALL"
   "1:CHNGBCKRX,0,1-UP,NEND,ALL"
   "1:CHNGBCKACKRX,0,1-UP,NEND,ALL"
   "1:EMERGCHNGOVERRX,0,1-UP,NEND,ALL"
   "1:EMERGCHNGOVERACKRX,0,1-UP,NEND,ALL"

   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:LNKINHRX,0,1-UP,NEND,ALL"
   "1:LNKUNINHRX,0,1-UP,NEND,ALL"
   "1:LNKINHACKRX,0,1-UP,NEND,ALL"
   "1:LNKUNINHACKRX,0,1-UP,NEND,ALL"
   "1:LNKINHDENYRX,0,1-UP,NEND,ALL"
   "1:LNKFORCEUNINHRX,0,1-UP,NEND,ALL"
   "1:LNKLOCINHTSTRX,0,1-UP,NEND,ALL"
   "1:LNKRMTINHTSTRX,0,1-UP,NEND,ALL"
   "1:LNKCONORDRX,0,1-UP,NEND,ALL"
   "1:LNKCONACKRX,0,1-UP,NEND,ALL"

   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:LNKTSTRX,154,1-UP,NEND,ALL"
   "1:LNKTSTACKRX,76,1-UP,NEND,ALL"
   "1:INVPDURX,0,1-UP,NEND,ALL"
   "1:SIFOCTRX,4456,1-UP,NEND,ALL"
   "1:SIOOCTRX,230,1-UP,NEND,ALL"
   "1:MSURX,230,1-UP,NEND,ALL"
   "1:LASTINITRCV,74,1-UP,NEND,ALL"
   "1:LNKCONGATTHRSHLD1,0,1-UP,NEND,ALL"
   "1:LNKCONGATTHRSHLD2,0,1-UP,NEND,ALL"
   "1:LNKCONGATTHRSHLD3,0,1-UP,NEND,ALL"

   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:PRI0DROP,0,1-UP,NEND,ALL"
   "1:PRI1DROP,0,1-UP,NEND,ALL"
   "1:PRI2DROP,0,1-UP,NEND,ALL"
```

```
        "1:PRI3DROP,0,1-UP,NEND,ALL"
        "1:LASTINITNA,74,1-UP,NEND,ALL"
        "1:DUROFLNKUNAV,0,1-UP,NEND,ALL"
        "1:DUROFLNKCONG,0,1-UP,NEND,ALL"
    ;
```

Related Commands: none

INIT-REG-SS7ROUTE / RTRV-PM-SS7ROUTE

Commands:

INIT-REG-SS7ROUTE: Initialize Register SS7 Route

RTRV-PM-SS7ROUTE: Retrieve Performance Monitors SS7 Route

Descriptions:

INIT-REG-SS7ROUTE lets the user clear the counters for statistics concerning an SS7 route.

RTRV-PM-SS7ROUTE lets the user retrieve current and historical performance data gathered from an SS7 route.

Category: Signaling **Security:** NSA for INIT-REG, View for RTRV-PM

Input Formats:

```
INIT-REG-SS7ROUTE:[TID]:<routeSs7>:[CTAG]::<montype>,
   [<monval>],[<locn>],[<dirn>];
```

```
RTRV-PM-SS7ROUTE:[TID]:<routeSs7>:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<routeSs7>:<montype>,<monval>,<monlev>,<locn>,
      <dirn>"
;
```

Parameters:

routeSs7 Identifies the AID as an SS7 Route. The pattern is a combination of the destination point code and the link set connecting to it.

Type: RouteSs7Aid
Range: <PCAID>-<LSETAID>, where
PCAID = {0-255}-{0-255}-{0-255} and
LSETAID = {1-20}
Default value: none

montype Identifies the registers (for a type of monitored parameter) to initialize or from which to retrieve performance data. "ALL" is the only valid input value.

Type: enum
Range: ALL = All types
DURLSETDIVER = Duration in minutes that traffic on the link set is diverted on low priority route
LASTINITNA = Number of minutes since initialization of all counters for which there is no direction (neither RCV nor TRMT)
TRFDIVER = Number of times traffic on the link set has been diverted on low priority route
Default value: none

monval Monitored value is either the measured value of the monitored parameter, or the value to which the register identified by *montype* has been initialized. The value is in the form of numeric counts or rates. The value "0" is currently the only acceptable input value.

Type: integer
Range: {0 – 4294967295}
Default value: 0

monlev Identifies the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

locn Identifies the location of the storage counters to initialize or from which to retrieve performance data. Currently only NEND is supported.

Type: enum
Range: NEND = near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters. This parameter is not supported presently; leave it blank.

Type: enum
Range: ALL = All directions
NA = Direction not applicable
RCV = Receive direction only
TRMT = Transmit direction only
Default value: ALL

Input Examples:

```
INIT-REG-SS7ROUTE::3-4-5-16:::ALL;
RTRV-PM-SS7ROUTE::3-4-5-16;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "3-4-5-16:DURLSETDIVER,1,1-UP,NEND,ALL"
   "3-4-5-16:LASTINITNA,101,1-UP,NEND,ALL"
   "3-4-5-16:TRFDIVER,2,1-UP,NEND,ALL"
;
```

Related Commands: none

RTRV-STATS-ISUPMSG

Command:

RTRV-STATS-ISUPMSG: Retrieve Statistics ISUPMSG

Description:

RTRV-STATS-ISUPMSG lets the user retrieve statistics for ISUP messages. Use this command to retrieve the total number of protocol messages and the various ISUP messages transmitted and received.

Description: RTRV-STATS-ISUPMSG lets the user retrieve statistics for ISUP messages. Use this command to retrieve the total number of protocol messages and the various ISUP messages transmitted and received.

Category: Signaling **Security:** View

Input Format:

```
RTRV-STATS-ISUPMSG:[TID]:<ss7Pc>:[CTAG];
```

Output Format:

```
    SID DATE TIME
M   CTAG COMPLD
    "<ss7Pc>:PDUSTX=<pdusTx>,PDUSRX=<pdusRx>,
       ACMRX=<acmRx>,ANMRX=<anmRx>,BLARX=<blaRx>,
       BLORX=<bloRx>,CCRRX=<ccrRx>,CFNRX=<cfnRx>,
       CGBRX=<cgbRx>,CGBARX=<cgbaRx>,CGURX=<cguRx>,
       CGUARX=<cguaRx>,CONRX=<conRx>,COTRX=<cotRx>,
       CPGRX=<cpgRx>,CQMRX=<cqmRx>,CQRRX=<cqrRx>,
       CRGRX=<crgRx>,FAARX=<faaRx>,FACRX=<facRx>,
       FARMSGRX=<farMsgRx>,FOTRX=<fotRx>,FRJRX=<frjRx>,
       GRARX=<graRx>,GRSRX=<grsRx>,IAMRX=<iamRx>,
       IDRRX=<idrRx>,INFRX=<infRx>,INRRX=<inrRx>,
       IRSRX=<irsRx>,LOPRX=<lopRx>,LPARX=<lpaRx>,
       NRMRX=<nrmRx>,OLMRX=<olmRx>,PAMRX=<pamRx>,
       RELRX=<relRx>,RESRX=<resRx>,RLCRX=<rlcRx>,
       RSCRX=<rscRx>,SAMRX=<samRx>,SGMRX=<sgmRx>,
       SUSRX=<susRx>,UBARX=<ubaRx>,UBLRX=<ublRx>,
       UCICRX=<ucicRx>,UPARX=<upaRx>,UPTRX=<uptRx>,
       USRRX=<usrRx>,CRARX=<craRx>,CRMRX=<crmRx>,
       CVRRX=<cvrRx>,CVTRX=<cvtRx>,EXMRX=<exmRx>,
       ACMTX=<acmTx>,ANMTX=<anmTx>,BLATX=<blaTx>,
       BLOTX=<bloTx>,CCRTX=<ccrTx>,CFNTX=<cfnTx>,
       CGBTX=<cgbTx>,CGBATX=<cgbaTx>,CGUTX=<cguTx>,
       CGUATX=<cguaTx>,CONTX=<conTx>,COTTX=<cotTx>,
       CPGTX=<cpgTx>,CQMTX=<cqmTx>,CQRTX=<cqrTx>,
       CRGTX=<crgTx>,FAATX=<faaTx>,FACTX=<facTx>,
       FARMSGTX=<farMsgTx>,FOTTX=<fotTx>,FRJTX=<frjTx>,
       GRATX=<graTx>,GRSTX=<grsTx>,IAMTX=<iamTx>,
       IDRTX=<idrTx>,INFTX=<infTx>,INRTX=<inrTx>,
       IRSTX=<irsTx>,LOPTX=<lopTx>,LPATX=<lpaTx>,
       NRMTX=<nrmTx>,OLMTX=<olmTx>,PAMTX=<pamTx>,
       RELTX=<relTx>,RESTX=<resTx>,RLCTX=<rlcTx>,
       RSCTX=<rscTx>,SAMTX=<samTx>,SGMTX=<sgmTx>,
       SUSTX=<susTx>,UBATX=<ubaTx>,UBLTX=<ublTx>,
       UCICTX=<ucicTx>,UPATX=<upaTx>,UPTTX=<uptTx>,
       USRTX=<usrTx>,CRATX=<craTx>,CRMTX=<crmTx>,
       CVRTX=<cvrTx>,CVTTX=<cvtTx>,EXMTX=<exmTx>,
       ACMDROPPED=<acmDropped>,
       CALLDROPPED2=<callDropped2>,
       CALLDROPPED3=<callDropped3>,
       IAMDROPPED=<iamDropped>,RELDROPPED=<relDropped>,
       RSCDROPPED=<rscDropped>"
;
```

Parameters:

ss7Pc Identifies the AID as an SS7 point code.

Type: PcAid
Range: {0-255}-{0-255}-{0-255}
Default value: none

pdusTx Identifies the total number of protocol data units (protocol messages) transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

pdusRx Identifies the total number of protocol data units (protocol messages) received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

acmRx Identifies the total number of address complete messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

anmRx Identifies the total number of answer messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

blaRx Identifies the total number of blocking acknowledgement messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

bloRx Identifies the total number of blocking messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

ccrRx Identifies the total number of continuity check request messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cfnRx Identifies the total number of confusion messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cgbRx Identifies the total number of circuit group blocking messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cgbaRx Identifies the total number of circuit group blocking acknowledgement messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cguRx Identifies the total number of circuit group unblocking messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cguaRx Identifies the total number of circuit group unblocking acknowledgement messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

conRx Identifies the total number of connect messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cotRx Identifies the total number of continuity messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cpgRx Identifies the total number of call progress messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cqmRx Identifies the total number of circuit query messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cqrRx Identifies the total number of circuit query acknowledgement messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

crgRx Identifies the total number of charging messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

faaRx Identifies the total number of facility accepted messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

facRx Identifies the total number of facility messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

farMsgRx Identifies the total number of facility request messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

fotRx Identifies the total number of forward transfer messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

frjRx Identifies the total number of facility rejected messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

graRx Identifies the total number of circuit group reset acknowledgement messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

grsRx Identifies the total number of circuit group reset messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

iamRx Identifies the total number of initial address messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

idrRx Identifies the total number of identification request messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

infRx Identifies the total number of information messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

inrRx Identifies the total number of information request messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

irsRx Identifies the total number of identification response messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

lopRx Identifies the total number of loop prevention messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

lpaRx Identifies the total number of loopback acknowledgement messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

nrmRx Identifies the total number of network resource management messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

olmRx Identifies the total number of overload messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

pamRx Identifies the total number of pass-along messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

relRx Identifies the total number of release messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

resRx Identifies the total number of resume messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

rlcRx Identifies the total number of release complete messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

rscRx Identifies the total number of reset messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

samRx Identifies the total number of subsequent address messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

sgmRx Identifies the total number of segmentation messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

susRx Identifies the total number of suspend messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

ubaRx Identifies the total number of unblocking acknowledgement messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

ublRx Identifies the total number of unblocking messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

ucicRx Identifies the total number of unequipped CIC messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

upaRx Identifies the total number of user part available messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

uptRx Identifies the total number of user part test messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

usrRx Identifies the total number of user-to-user messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

craRx Identifies the total number of circuit reservation acknowledgement messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

crmRx Identifies the total number of circuit reservation messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cvrRx Identifies the total number of circuit validation response messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cvtRx Identifies the total number of circuit validation messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

exmRx Identifies the total number of exit messages received from the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

acmTx Identifies the total number of address complete messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

anmTx Identifies the total number of answer messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

blaTx Identifies the total number of blocking acknowledgement messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

bloTx Identifies the total number of blocking messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

ccrTx Identifies the total number of continuity check request messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cfnTx Identifies the total number of confusion messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cgbTx Identifies the total number of circuit group blocking messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cgbaTx Identifies the total number of circuit group blocking acknowledgement messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cguTx Identifies the total number of circuit group unblocking messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cguaTx Identifies the total number of circuit group unblocking acknowledgement messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

conTx Identifies the total number of connect messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cotTx Identifies the total number of continuity messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cpgTx Identifies the total number of call progress messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cqmTx Identifies the total number of circuit query messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cqrTx Identifies the total number of circuit query acknowledgement messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

crgTx Identifies the total number of charging messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

faaTx Identifies the total number of facility accepted messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

facTx Identifies the total number of facility messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

farMsgTx Identifies the total number of facility request messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

fotTx Identifies the total number of forward transfer messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

frjTx Identifies the total number of facility rejected messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

graTx Identifies the total number of circuit group reset acknowledgement messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

grsTx Identifies the total number of circuit group reset messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

iamTx Identifies the total number of initial address messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

idrTx Identifies the total number of identification request messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

infTx Identifies the total number of information messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

inrTx Identifies the total number of information request messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

irsTx Identifies the total number of identification response messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

lopTx Identifies the total number of loop prevention messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

lpaTx Identifies the total number of loopback acknowledgement messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

nrmTx Identifies the total number of network resource management messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

olmTx Identifies the total number of overload messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

pamTx Identifies the total number of pass-along messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

relTx Identifies the total number of release messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

resTx Identifies the total number of resume messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

rlcTx Identifies the total number of release complete messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

rscTx Identifies the total number of reset messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

samTx Identifies the total number of subsequent address messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

sgmTx Identifies the total number of segmentation messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

susTx Identifies the total number of suspend messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

ubaTx Identifies the total number of unblocking acknowledgement messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

ublTx Identifies the total number of unblocking messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

ucicTx Identifies the total number of unequipped CIC messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

upaTx Identifies the total number of user part available messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

uptTx Identifies the total number of user part test messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

usrTx Identifies the total number of user-to-user messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

craTx Identifies the total number of circuit reservation acknowledgement messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

crmTx Identifies the total number of circuit reservation messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cvrTx Identifies the total number of circuit validation response messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

cvtTx Identifies the total number of circuit validation messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

exmTx Identifies the total number of exit messages transmitted toward the point code.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

acmDropped Identifies the total number of ADDRESS COMPLETE messages (ACM) dropped because of congestion.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

callDropped2 Identifies the total number of calls dropped after expiry of *isupTCONG* (defined in ENT-SS7SYS) due to level 2 congestion in MTP3.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

callDropped3 Identifies the total number of calls dropped due to level 3 congestion in MTP3.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

iamDropped Identifies the total number of INITIAL ADDRESS messages (IAM) dropped because of congestion.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

relDropped Identifies the total number of RELEASE messages (REL) dropped because of congestion.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

rscDropped Identifies the total number of RESET CIRCUIT messages (RSC) dropped because of congestion.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

Input Example:

```
RTRV-STATS-ISUPMSG::1-1-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1-1-1:PDUSTX=0,PDUSRX=0,ACMRX=0,ANMRX=0,BLARX=0,
      BLORX=0,CCRRX=0,CFNRX=0,CGBRX=0,CGBARX=0,
      CGURX=0,CGUARX=0,CONRX=0,COTRX=0,CPGRX=0,
      CQMRX=0,CQRRX=0,CRGRX=0,FAARX=0,FACRX=0,
      FARMSGRX=0,FOTRX=0,FRJRX=0,GRARX=0,GRSRX=0,
      IAMRX=0,IDRRX=0,INFRX=0,INRRX=0,IRSRX=0,LOPRX=0,
      LPARX=0,NRMRX=0,OLMRX=0,PAMRX=0,RELRX=0,RESRX=0,
      RLCRX=0,RSCRX=0,SAMRX=0,SGMRX=0,SUSRX=0,UBARX=0,
      UBLRX=0,UCICRX=0,UPARX=0,UPTRX=0,USRRX=0,
      CRARX=0,CRMRX=0,CVRRX=0,CVTRX=0,EXMRX=0,ACMTX=0,
      ANMTX=0,BLATX=0,BLOTX=0,CCRTX=0,CFNTX=0,CGBTX=0,
      CGBATX=0,CGUTX=0,CGUATX=0,CONTX=0,COTTX=0,
      CPGTX=0,CQMTX=0,CQRTX=0,CRGTX=0,FAATX=0,FACTX=0,
      FARMSGTX=0,FOTTX=0,FRJTX=0,GRATX=0,GRSTX=0,
      IAMTX=0,IDRTX=0,INFTX=0,INRTX=0,IRSTX=0,LOPTX=0,
      LPATX=0,NRMTX=0,OLMTX=0,PAMTX=0,RELTX=0,RESTX=0,
      RLCTX=0,RSCTX=0,SAMTX=0,SGMTX=0,SUSTX=0,UBATX=0,
      UBLTX=0,UCICTX=0,UPATX=0,UPTTX=0,USRTX=0,
      CRATX=0,CRMTX=0,CVRTX=0,CVTTX=0,EXMTX=0,
      ACMDROPPED=0,CALLDROPPED2=0,CALLDROPPED3=0,
      IAMDROPPED=0,RELDROPPED=0,RSCDROPPED=0"
;
```

Related Commands:

```
INIT-REG-ISUPMSG          RTRV-PM-ISUPMSG
```

RTRV-STATUS-LSET

Command:

RTRV-STATUS-LSET: Retrieve Status Link Set

Description:

RTRV-STATUS-LSET lets the user retrieve information indicating the status of a link set.

Category: Signaling **Security:** View

Input Format:

```
RTRV-STATUS-LSET:[TID]:<LsetId>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<LsetId>:LSETSTARSLT=<lsetStaRslt>,
      SS7LSETSTANMBACTLNKS=<ss7LsetStaNmbActLnks>,
      SS7LSETSTASTATE=<ss7LsetStaState>"
;
```

Parameters:

LsetId Identifies the AID as a link set.

Type: LsetAid
Range: {1-64}
Default value: none

lsetStaRslt Identifies the result of MTP layer 3 test on the link set.

Type: enum
Range: FAILINGLYR3 = Failed
SUCCESS = Passed
Default value: none

ss7LsetStaNmbActLnks Identifies the total number of active links in the link set.

Type: integer
Range: {1-128}
Default value: none

ss7LsetStaState Identifies the current state of a link set.

Type: enum
Range: ACTIVE = Link set is active
INACTIVE = Link set is inactive
Default value: none

Input Example:

```
RTRV-STATUS-LSET::1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "12:LSETSTARSLT=SUCCESS,SS7LSETSTANMBACTLNKS=2,
      SS7LSETSTASTATE=ACTIVE"
;
```

Related Commands:

```
ED-STATE-LSET
```

RTRV-STATUS-PC

Command:

RTRV-STATUS-PC: Retrieve Status Point Code

Description:

RTRV-STATUS-PC lets the user retrieve information indicating the status of a point code.

Category: Signaling **Security:** View

Input Format:

```
RTRV-STATUS-PC:[TID]:[<ss7Pc>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<ss7Pc>:SS7PCSTARSLT=<ss7PcStaRslt>,
      SS7PCSTANMBACTVLNKSETS=<ss7PcStaNmbActvLnkSets>,
      SS7PCSTASTATE=<ss7PcStaState>,
      SS7PCSTACONG=<ss7PcStaCong>,
      SS7PCSTARSTFLG=<ss7PcStaRstFlg>,
      SS7PCSTAISUPSTAT=<ss7PcStaIsupStat>"
;
```

Parameters:

ss7Pc Identifies the AID as a point code. A null value is equivalent to "ALL"; that is, by leaving the field blank, status information for all point codes configured in the system will be returned.

Type: PcAid
Range: {0-255}-{0-255}-{0-255}
Default value: none

ss7PcStaRslt Identifies the result of MTP layer 3 test on the point code.

Type: enum
Range: FAILINGLYR3 = Failed
SUCCESS = Passed
Default value: none

ss7PcStaNmbActvLnkSets Identifies the total number of active link sets in the point code.

Type: integer
Range: {1-64}
Default value: none

ss7PcStaState Identifies whether the point code is active.

Type: BoolYN
Range: Y = Point code is active
N = Point code is inactive
Default value: none

ss7PcStaCong Identifies the priority assigned to a point code, depending on the congestion level. A value of "PRIORITY0" indicates that the point code is uncongested.

Type: enum
Range: PRIORITY0
PRIORITY1
PRIORITY2
PRIORITY3
Default value: none

ss7PcStaRstFlg Specifies the signaling point restart indication.

Type: BoolYN
Range: N = signaling point not restarted
Y = signaling point restarted
Default value: none

ss7PcStaIsupStat Identifies the status of the ISUP layer for the point code.

Type: enum
Range: AVAILABLE = Point code available
CONG1= Point code at ISUP congestion level 1
CONG2 = Point code at ISUP congestion level 2
CONG3 = Point code at ISUP congestion level 3
UNAVAILABLE = Point code unavailable
Default value: none

Input Example:

```
RTRV-STATUS-PC::1-2-3;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1-2-3:SS7PCSTARSLT=SUCCESS,
      SS7PCSTANMBACTVLNKSETS=2,
      SS7PCSTASTATE=Y,SS7PCSTACONG=PRIORITY0,
      SS7PCSTARSTFLG=N,SS7PCSTAISUPSTAT=CONG1"
;
```

Related Commands: None

RTRV-STATUS-ROUTESS7

Command:

RTRV-STATUS-ROUTESS7: Retrieve Status Route SS7

Description:

RTRV-STATUS-ROUTESS7 lets the user retrieve information indicating the status of an SS7 route.

Category: Signaling **Security:** View

Input Format:

```
RTRV-STATUS-ROUTESS7:[TID]:<routeSs7Aid>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<routeSs7Aid>:ROUTESTARSLT=<routeStaRslt>,
      SS7ROUTESTASTATE=<ss7RouteStaState>"
;
```

Parameters:

routeSs7Aid Identifies the AID as an SS7 Route. The pattern is a combination of the destination point code and the link set connecting to it. A null value for the second part of the AID lets the user retrieve information for all link sets (and, thus, all SS7 routes) associated with a specific point code.

Type: RouteSs7Aid
Range: <PCAID>[-<LSETAID>], where
PCAID = {0-255}-{0-255}-{0-255} and
LSETAID = {1-64}
Default value: none

routeStaRslt Identifies the result of MTP layer 3 test on the SS7 route.

Type: enum
Range: FAILINGLYR3 = Failed
SUCCESS = Passed
Default value: none

ss7RouteStaState Identifies the current state of an SS7 route.

Type: enum
Range: ALLOWED = signaling route available
PROHIBITED = signaling route unavailable
RESTRICTED = signaling traffic towards a particular destination is being transferred with some difficulty via the signaling transfer point sending the concerned message
Default value: none

Input Example:

```
RTRV-STATUS-ROUTESS7::3-4-5-16;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "3-4-5-16:ROUTESTARSLT=SUCCESS,
      SS7ROUTESTASTATE=ALLOWED"
;
```

Related Commands:

```
DLT/ENT/RTRV-ROUTE-SS7
```

RTRV-STATUS-SLK

Command:

RTRV-STATUS-SLK: Retrieve Status Signaling Link

Description:

RTRV-STATUS-SLK lets the user retrieve information indicating the status of a signaling link.

Category: Signaling **Security:** View

Input Format:

```
RTRV-STATUS-SLK:[TID]:<ss7LnkId>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<ss7LnkId>:SS7LNKSTARSLT=<ss7LnkStaRslt>,
      LOCALBUSY=<localBusy>,REMOTEBUSY=<remoteBusy>,
      SS7LNKSTASTATE=<ss7LnkStaState>,
      SS7LNKSTALOCBLKD=<ss7LnkStaLocBlkd>,
      SS7LNKSTAREMBLKD=<ss7LnkStaRemBlkd>,
      SS7LNKSTALOCINHBT=<ss7LnkStaLocInhbt>,
      SS7LNKSTARMTINHBT=<ss7LnkStaRmtInhbt>,
      SS7LNKSTAUNINHBT=<ss7LnkStaUninhbt>,
      SS7LNKSTACONG=<ss7LnkStaCong>,
      SS7LNKSTAEMRG=<ss7LnkStaEmrg>"
;
```

Parameters:

ss7LnkId Identifies the AID as a signaling link.

Type: Ss7LnkAid
Range: {1-64}
Default value: none

ss7LnkStaRslt Identifies the result of the status request operation.

Type: enum
Range: FAILCFGLYR2 = Status request failed: configuration not done at layer 2
FAILINVCFGLYR2 = Status request failed: invalid configuration at layer 2
FAILINVLNKLYR3 = Status request failed: invalid configuration at layer 3
SUCCESS = Status request successful
Default value: none

localBusy Identifies whether the signaling link is busy at the local end.

Type: enum
Range: BUSY
NOTBUSY
Default value: none

remoteBusy Identifies whether the signaling link is busy at the remote end.

Type: enum
Range: BUSY
NOTBUSY
Default value: none

ss7LnkStaState Identifies the current state of a signaling link at MTP layer 3.

Type: enum
Range: ACTIVE = Link is active
CON = Link is connecting
FAILED = Link has failed
INACTIVE = Link is inactive
SUSPEND = Link is suspended
WAITCON = Link is waiting to connect
Default value: none

ss7LnkStaLocBlkd Identifies whether the signaling link is blocked at the local end.

Type: BoolYN
Range: N = Link not blocked at local end
Y = Link blocked at local end
Default value: none

ss7LnkStaRemBlkd Identifies whether the signaling link is blocked at the remote end.

Type: BoolYN
Range: N = Link not blocked at remote end
Y = Link blocked at remote end
Default value: none

ss7LnkStaLocInhbt Identifies whether the signaling link is inhibited at the local end.

Type: BoolYN
Range: N = Link not inhibited at local end
Y = Link inhibited at local end
Default value: none

ss7LnkStaRmtInhbt Identifies whether the signaling link is inhibited at the remote end.

Type: BoolYN
Range: N = Link not inhibited at remote end
Y = Link inhibited at remote end
Default value: none

ss7LnkStaUninhbt Identifies whether the signaling link is uninhibited.

Type: BoolYN
Range: N = Link not uninhibited
Y = Link uninhibited
Default value: none

ss7LnkStaCong Identifies the priority assigned to a signaling link, depending on the congestion level. A value of “PRIORITY0” indicates that the signaling link is not congested.

Type: enum
Range: PRIORITY0
PRIORITY1
PRIORITY2
PRIORITY3
Default value: none

ss7LnkStaEmrg Specifies the signaling link's emergency alignment indication.

Type: BoolYN
Range: N = no emergency alignment indicated
Y = emergency alignment indicated
Default value: none

Input Example:

```
RTRV-STATUS-SLK::1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:SS7LNKSTARSLT=SUCCESS,LOCALBUSY=NOTBUSY,
      REMOTEBUSY=NOTBUSY,SS7LNKSTASTATE=ACTIVE,
      SS7LNKSTALOCBLKD=N,SS7LNKSTAREMBLKD=N,
      SS7LNKSTALOCINHBT=N,SS7LNKSTARMTINHBT=N,
      SS7LNKSTAUNINHBT=N,SS7LNKSTACONG=PRIORITY0,
      SS7LNKSTAEMRG=N"
;
```

Related Commands:

```
ED-STATE-SLK
```

RTRV-TH-SLK / SET-TH-SLK

Commands:

RTRV-TH-SLK: Retrieve Threshold Signaling Link

SET-TH-SLK: Set Threshold Signaling Link

Descriptions:

RTRV-TH-SLK lets the user retrieve the current threshold level of one or more monitored performance counts associated with a specific signaling link in the switch. The violation of these thresholds will trigger a condition. Provision thresholds with SET-TH.

SET-TH-SLK lets the user set the performance monitoring parameter threshold levels for a specific signaling link in the switch. This command cannot be used to turn off threshold crossing alerts; i.e., the threshold level may not be set to some "non-applicable" value. Retrieve thresholds with RTRV-TH. The switch sends a REPT ALM or REPT EVT message when thresholds are exceeded, depending on the notification code associated with the threshold condition. Threshold setting for multiple monitored parameters requires multiple invocations of this command – wildcarding is not permitted.

Category: Signaling **Security:** NSA for SET-TH, View for RTRV-TH

Category: Signaling

Security: View

Input Formats:

```
RTRV-TH-SLK:[TID]:<ss7LnkId>:[CTAG]::[<montype>];
SET-TH-SLK:[TID]:<ss7LnkId>:[CTAG]::<montype>,<thlev>;
```

Input Format:

```
RTRV-TH-SLK:[TID]:<ss7LnkId>:[CTAG]::[<montype>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<ss7LnkId>:<montype>,<thlev>"
;
```

Parameters:

ss7LnkId Identifies the AID as a signaling link.

Type: Ss7LnkAid
Range: {1-64}
Default value: none

montype Identifies the type of monitored parameter for which to set, or from which to retrieve, the current threshold level for the specified signaling link.

Type: enum
Range: ALL = All types
UTIL-HT = Alarm Threshold Level (link UTILization-High Threshold: the percentage of link utilization that, when exceeded, generates an alarm for the link)
UTIL-LT = Alarm Clear Level (link UTILization-Low Threshold: the percentage of link utilization that, when reached, clears any standing alarm for the link)
Default value: ALL

thlev Identifies the threshold level, as a percentage of link utilization, for the monitored parameter identified by *montype*.

Type: integer
Range: {0-100}
Default value: none

Input Examples:

```
RTRV-TH-SLK::1;
SET-TH-SLK::1:::UTIL-HT,90;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:UTIL-HT,90 "
   "1:UTIL-LT,80"
;
```

Related Commands:

```
INIT-REG-SLK              RTRV-PM-SLK
```

NOTES

ACT/CANC-USER

Commands:

ACT-USER: Activate User (Log in)

CANC-USER: Cancel User (Log out)

Descriptions:

ACT-USER lets the user initiate (log on) a session with the switch by entering a user name and password.

CANC-USER lets the user terminate (log off) a session with the switch.

Category: System **Security:** View for both commands

Input Formats:

```
ACT-USER:[TID]:<uid>:[CTAG]::<pid>;
CANC-USER:[TID]:[<uid>]:[CTAG];
```

Output Format: none

Parameters:

uid Identifies the user. The UID is the user ID or login name. The factory default is “lucent”.

Type: string
Range: 8 – 16 characters
Default value: None

pid Specifies the user's password, which must contain at least one number and one letter. The entered password displays as a series of asterisks. The factory default is “lucent”.

Type: string
Range: 8 – 16 characters
Default value: None

Input Examples:

```
ACT-USER::lucent:::******;
CANC-USER;
```

Related Commands: none

ALW/INH/RTRV-MSG-USER

Commands:

ALW-MSG-USER: Allow Message User

INH-MSG-USER: Inhibit Message User

RTRV-MSG-USER: Retrieve Message User

Descriptions:

ALW-MSG-USER lets the user resume receipt of inhibited automatic messages. Unreported alarms in existence at the time of restoration are transmitted with the REPT ALM message.

INH-MSG-USER allows a user to inhibit receipt of autonomous messages, but only for the user issuing the command. During the entire period of message inhibition, the switch continues to respond fully to RTRV-ALM and RTRV-COND commands. Restore receipt of autonomous messages with the ALW-MSG-USER command.

RTRV-MSG-USER instructs the switch to retrieve the status of automatic messaging for the user issuing the command.

Category: System **Security:** NSA for ALW and INH, View for RTRV

Input Formats:

```
ALW-MSG-USER:[TID]:<uid>:[CTAG]::[<ntfcncde>],
   [<condtype>],[<tmper>];
INH-MSG-USER:[TID]:<uid>:[CTAG];
RTRV-MSG-USER:[TID]:[<uid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<uid>:<status>"
;
```

Parameters:

uid Identifies the user. The UID is the user ID or login name. The factory default is “lucent”. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the system returns the status of automatic messaging for all current users.

Type: string
Range: 8 – 16 characters
Default value: none (Factory default is “lucent”)

ntfcncde Identifies the condition notification code for which receipt of autonomous messages will be allowed. A null value is equivalent to "ALL"; that is, by leaving the field blank, receipt of autonomous messages will be allowed for all notification codes. This parameter is presently not supported; leave it blank.

Type: enum
Range: CL = Cleared. Never used in provisioning requests or returned in RTRVs - only active conditions are available through the RTRV-EVT/COND/ALM messages and by definition their notification codes are never CL/CLEAR.
CR = Critical
MJ = Major
MN = Minor
NA = Not Alarmed
Default value: none

condtype Indicates the condition type for an alarm or a reported event as defined in GR-833-CORE, Appendix C. A null value is equivalent to "ALL"; that is, by leaving the field blank, receipt of autonomous messages will be allowed for all condition types. This parameter is presently not supported; leave it blank.

Type: enum
Range: alphanumeric characters
Default value: none

tmper Identifies the period of time for which receipt of autonomous messages is allowed. A null value is equivalent to "ALL"; that is, by leaving the field blank, receipt of autonomous messages will be allowed until subsequently inhibited. This parameter is presently not supported; leave it blank.

Type: string
Range: {1}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)
Default value: none

status Identifies (in RTRV output) whether messages are allowed or inhibited.

Type: enum
Range: ALW = Allowed
INH = Inhibited
Default value: none

Input Examples:

```
ALW-MSG-USER::lucent;
INH-MSG-USER::lucent;
RTRV-MSG-USER::lucent;
```

Output Example:

```
   lucent 2005-01-28 14:37:49
M  0 COMPLD
   "lucent:ALW"
;
```

Related Commands: none

ALW/INH-TL1-CMD / RTRV-TL1-INH

Commands:

ALW-TL1-CMD: Allow TL1 Command

INH-TL1-CMD: Inhibit TL1 Command

RTRV-TL1-INH: Retrieve TL1 Inhibited

Descriptions:

ALW-TL1-CMD lets the user allow the execution of an inhibited TL1 command.

INH-TL1-CMD lets a user inhibit the execution of a TL1 command.

RTRV-TL1-INH lets the user retrieve the list of inhibited TL1 commands.

Category: System **Security:** ADMIN for ALW/INH, View for RTRV

Input Formats:

```
ALW-TL1-CMD:[TID]:<tl1cmd>:[CTAG];
INH-TL1-CMD:[TID]:<tl1cmd>:[CTAG];
RTRV-TL1-INH:[TID]:[<tl1cmd>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<tl1cmd>"
;
```

Parameters:

tl1cmd Identifies the AID (in ALW and INH) as the TL1 command for which execution is allowed or inhibited. Certain commands cannot be inhibited (e.g., ACT-USER, ALW-TL1-CMD, CANC-USER, etc.).

Type: string
Range: 1 – 32 alphanumeric characters
Default value: None

Input Examples:

```
ALW-TL1-CMD::TRC-CALL-EQPT;
INH-TL1-CMD::TRC-CALL-EQPT;
RTRV-TL1-INH;
```

Output Example:

```
   lucent 2005-01-28 14:37:49
M  0 COMPLD
   "OPR-CVT"
   "TRC-CALL-EQPT"
;
```

Related Commands: none

DLT/ENT/RTRV-BACKUP-SYS

Commands:

DLT-BACKUP-SYS: Delete Backup System

ENT-BACKUP-SYS: Enter Backup System

RTRV-BACKUP-SYS: Retrieve Backup System

Descriptions:

DLT-BACKUP-SYS lets the user delete the destination host and directory for copying the configuration data for the switch, including the TimesTen database.

ENT-BACKUP-SYS lets the user establish a destination host and directory for copying the configuration data for the switch, including the TimesTen database in the switch, to another location in the network.

RTRV-BACKUP-SYS lets the user retrieve the destination host and directory, as well as the user's name and password, used for copying the configuration data for the switch, including the TimesTen database in the switch, to another location in the network.

Category: System **Security:** NSA for DLT and ENT, View for RTRV

Input Formats:

```
DLT-BACKUP-SYS:[TID]:[<src>]:[CTAG];
ENT-BACKUP-SYS:[TID]:[<src>]:[CTAG]::<desthost>,
   <username>,<password>,<destdir>;
RTRV-BACKUP-SYS:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:<desthost>,<username>,<password>,<destdir>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

desthost Identifies the remote host, containing the destination directory identified by *destdir*, for backing up the switch configuration data.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

username Identifies a valid user name for the host identified by *desthost*.

Type: string
Range: alphanumeric characters
Default value: none

password Identifies a valid password for the host identified by *desthost*.

Type: string
Range: alphanumeric characters
Default value: none

destdir Identifies the destination directory for the switch configuration data. The value of *destdir* starts with a "/" unless the destination directory is within the current working directory.

Type: string
Range: ANSI characters
Default value: none

Input Examples:

```
DLT-BACKUP-SYS;

ENT-BACKUP-SYS:::::192.2.24.234,USERNAME,PASSWORD,
   DESTDIR;

RTRV-BACKUP-SYS;
```

Output Example:

```
   lucent 2005-01-28 14:37:49
M  0 COMPLD
   "COM:192.2.24.234,USERNAME,PASSWORD,DESTDIR"
;
```

Related Commands:

```
EXEC-BACKUP-PLEXUS        RTRV-BKUPSCHED-EQPT
SCHED-BKUP-EQPT
```

ED-DAT

Command:

ED-DAT: Edit date and time

Description:

ED-DAT lets the user set the system date and/or time in the switch.

Category: System **Security:** SA

Input Format:

```
ED-DAT:[TID]::[CTAG]::[<date>],[<time>];
```

Output Format: none

Parameters:

date DATE is the current date in a format of: YY-MM-DD, where YY is the last two digits of the year, MM is the month of the year, and DD is the day of the month.

Type: enum
Range: {00-37}-{01-12}-{01-31}
Default value: not applicable

time TIME is the current time in a format of: HH-MM-SS, where HH is the hour in a 24-hour format, MM is the minute, and SS is the second.

Type: enum
Range: {00-23}-{00-59}-{00-59}
Default value: not applicable

Input Example:

```
ED-DAT:::::04-10-29,08-45-40;
```

Related Commands: none

ED/RTRV-SYS-TL1

Commands:

ED-SYS-TL1: Edit System TL1

RTRV-SYS-TL1: Retrieve System TL1

Descriptions:

ED-SYS-TL1 lets the user set the behavior of telnet connections; i.e., whether to send telnet control options and how to invoke the system prompt. The TL1 agent supports both line mode and character mode telnet connections. In character mode the telnet client sends one character at a time to the TL1 agent. In line mode the client (e.g., the serial TL1 Craft port on the rear of the switch) sends data to the TL1 agent a line at a time. The two parameters in ED-SYS-TL1 control the interface between telnet clients and the TL1 agent.

RTRV-SYS-TL1 instructs the switch to retrieve the settings for telnet connections.

Description: ED-SYS-TL1 lets the user set the behavior of telnet connections; i.e., whether to send telnet control options and how to invoke the system prompt. The TL1 agent supports both line mode and character mode telnet connections. In character mode the telnet client sends one character at a time to the TL1 agent. In line mode the client (e.g., the serial TL1 Craft port on the rear of the switch) sends data to the TL1 agent a line at a time. The two parameters in ED-SYS-TL1 control the interface between telnet clients and the TL1 agent.

Category: System **Security:** NSA for ED, View for RTRV

Input Formats:

```
ED-SYS-TL1:[TID]:[<src>]:[CTAG]::
   [TLNTCNTRLOPT=<tlntcntrlopt>],
   [PROMPTMODE=<promptmode>];

RTRV-SYS-TL1:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<com>:TLNTCNTRLOPT=<tlntcntrlopt>,
      PROMPTMODE=<promptmode>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

com Identifies the AID (in RTRV output) as the switch.

Type: COM
Range: COM
Default value: COM

tlntcntrlopt Indicates whether to send telnet control options. When the value of the parameter is the factory default of "Y" (Yes), the TL1 agent sends two commands to a telnet client when the client establishes a connection with the TL1 agent. The first command puts the client into character mode. The second command tells the client that the TL1 agent will echo characters back to the client (Many telnet clients support a mode where user input is echoed locally from the keyboard to the console output.).

Type: BoolYN
Range: Y = send telnet control options
N = don't send telnet control options
Default value: not applicable

promptmode Indicates whether pressing the "Escape" key is required to invoke the telnet session system prompt. When the value of the parameter is the factory default of "Y" (Yes), the user must press the "Escape" key for the TL1 agent to go into prompt mode (in which the TL1 agent displays the Lucent prompt and echoes characters back to telnet clients). If the value of *promptmode* is "Y" and the user does not press the "Escape" key, then the prompt will not be displayed and characters will not be echoed to the client. When the value is "N" (No), the TL1 agent automatically enters local echo mode and displays the Lucent prompt when a connection is established with a telnet client.

Type: BoolYN
Range: Y = entering "Escape" required to invoke system prompt
N = prompt invoked automatically on connect
Default value: not applicable

Input Examples:

```
ED-SYS-TL1:::::TLNTCNTRLOPT=Y,PROMPTMODE=Y;
RTRV-SYS-TL1;
```

Output Example:

```
   lucent 2005-01-28 14:37:49
M  0 COMPLD
   "COM:TLNTCNTRLOPT=Y,PROMPTMODE=Y"
;
```

Related Commands: none

INIT-SYS

Command:

INIT-SYS: Initialize System

Description:

INIT-SYS lets the user initialize the switch as a whole either to its TL1 interface default values or to the existing values in the TimesTen database. It also initializes general parameters like Date and Time. As a security feature, the TID (target identifier; i.e., the network name of the switch) is mandatory – use RTRV-HDR to obtain the name if unknown. The AID block is not included so that the command cannot be used to reset subsystems.

Category: System **Security:** ADMIN

Input Format:

```
INIT-SYS:<TID>::[CTAG]::<ph>;
```

Output Format: none

Parameters:

ph Identifies the degree of thoroughness of the system initialization.

Type: enum
Range: 10 = Normal shutdown and reboot
20 = Shutdown and halt (no reboot)
30 = Shutdown and clean persistent databases (factory default)
Default value: None

Input Example:

```
INIT-SYS:lucent::::10;
```

Related Commands: none

RTRV-BKUPSCHED-EQPT / SCHED-BKUP-EQPT

Commands:

RTRV-BKUPSCHED-EQPT: Retrieve Backup Schedule Equipment

SCHED-BKUP-EQPT: Schedule Backup Equipment

Descriptions:

RTRV-BKUPSCHED-EQPT lets the user retrieve the scheduling interval, starting date, and starting time for autonomous backups of the configuration data for the switch, including the TimesTen database in the switch, to another location in the network.

SCHED-BKUP-EQPT lets the user schedule autonomous backups of the configuration data for the switch, including the TimesTen database in the switch, to another location in the network. SCHED-BKUP-EQPT is dependent on ENT-BACKUP-SYS; that is, the user cannot schedule a backup unless the backup system is configured first.

Category: System **Security:** NSA for SCHED, View for RTRV

Input Formats:

```
RTRV-BKUPSCHED-EQPT:[TID]:[<src>]:[CTAG];
```

```
SCHED-BKUP-EQPT:[TID]:[<src>]:[CTAG]::::<invl>,
   <stadat>,<statm>,<tmout>;
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
 "<src>:<invl>,<stadat>,<statm>,<tmout>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

invl Identifies the interval; i.e., the frequency at which the backup runs. The format for interval is VAL-UN, where VAL is a numeric value and UN stands for a unit of time.

Type: ScheduleInterval
Range: {1-31}-DAY
{1-24}-HR
Default value: None

stadat Identifies the start date; i.e., the date to begin the scheduled backup. The format for *stadat* is MOY-DOM (month-of-year, day-of-month). Setting the month to "0" turns off backup scheduling so no scheduled backups will be performed.

Type: StartDate
Range: {0-12}-{1-31}
Default value: None

statm Identifies the start time; i.e., the time to begin the scheduled backup. The format for *statm* is H HOD-MOH (hour-of-day, minute-of-hour). Valid values are 0-24 and 0-59 respectively. Default is the current time of day.

Type: StartTime
Range: {0-23}-{0-59}
Default value: None

tmout Identifies the time out interval in minutes. The command execution terminates if the command has not executed within the *tmout* interval (due to a stalled FTP process).

Type: Tmout
Range: {1-120}
Default value: 30

Input Examples:

```
RTRV-BKUPSCHED-EQPT;
```

```
SCHED-BKUP-EQPT:::::::24-HR,10-29,22-30,30;
```

Output Example:

```
   lucent 2005-01-28 14:37:49
M  0 COMPLD
   "COM:24-HR,10-29,22-30,30"
;
```

Related Commands:

DLT/ENT/RTRV-BACKUP-SYS EXEC-BACKUP-PLEXUS

RTRV-HDR

Command:

RTRV-HDR: Retrieve header

Description:

RTRV-HDR returns the current date, time, and TID of the switch. If you do not specify a TID then you can find out the TID in the response to RTRV-HDR. This is the most basic message.

Category: System **Security:** View

Input Format:

```
RTRV-HDR:[TID]::[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
;
```

Parameters: none

Input Example:

```
RTRV-HDR;
```

Output Example:

```
   lucent 2005-01-28 14:37:49
M  0 COMPLD
;
```

Related Commands: none

RTRV-NETYPE

Command:

RTRV-NETYPE: Retrieve Network Element Type

Description:

RTRV-NETYPE lets the user retrieve the vendor, model, network role, and software release for the switch.

Category: System **Security:** View

Input Format:

```
RTRV-NETYPE:[TID]::[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<vendor>,<model>,<neType>,<swIssue>"
;
```

Parameters:

vendor Identifies the name of the equipment vendor.

Type: string
Range: up to 40 alphanumeric characters
Default value: none

model Identifies the name of the equipment model.

Type: string
Range: up to 40 alphanumeric characters
Default value: none

neType Identifies the equipment as a specific type of network element.

Type: enum
Range: ADM = Add drop multiplexer
ADTS = Automated digital timing system
APS = Automatic protection switching equipment
CS = Circuit switch
DCS = Digital cross-connect switch
DLC = Digital loop carrier system
EDSX = Electronic digital signal cross-connect
EM = Environment monitors
ISDN = Integrated services digital network switch
LBRV = Low bit rate voice terminal
LDS = Local digital switch
LTE = Line terminating equipment
MUX = Multiplexer
PS = Packet switch
REP = Repeater
SCP = Service control point
SS = Supervisory system
STP = Signal transfer point
TSG = Timing signal generator
Default value: none

swIssue Identifies the software release issue.

Type: string
Range: alphanumeric characters
Default value: none

Input Example:

```
RTRV-NETYPE;
```

Output Example:

```
   lucent 2005-01-28 14:37:49
M  0 COMPLD
   "Lucent,Lucent Network Controller 3000,ISDN,5.0.1"
;
```

Related Commands: none

RTRV/SET-PMDAY

Commands:

RTRV-PMDAY: Retrieve Performance Monitoring Day

SET-PMDAY: Set Performance Monitoring Day

Descriptions:

RTRV-PMDAY allows retrieval of the start time for the daily performance monitoring data collection period for the switch. Use the SET-PMDAY command to set the current start time of the daily data collection.

SET-PMDAY allows the user to set the current start time of the daily performance monitoring data collection period for the switch. Use the RTRV-PMDAY command to retrieve the start time.

Category: System **Security:** NSA for SET, View for RTRV

Input Formats:

```
RTRV-PMDAY:[TID]::[CTAG];
SET-PMDAY:[TID]::[CTAG]::<HourOfDay>;
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<HourOfDay>"
;
```

Parameters:

HourOfDay Identifies the start time of the daily data collection period.

Type: integer
Range: {0-23}
Default value: None

Input Examples:

```
RTRV-PMDAY;
SET-PMDAY::::0;
```

Output Example:

```
   lucent 2005-01-28 14:37:49
M  0 COMPLD
   "0"
;
```

Related Commands: none

RTRV-SESSIONS

Command:

RTRV-SESSIONS: Retrieve Sessions

Description:

RTRV-SESSIONS lets the user retrieve the identification and associated parameters for currently connected users of the switch.

Category: System **Security:** View

Input Format:

```
RTRV-SESSIONS:[TID]:[<UID>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<UID>:SLOT=<slot>,PORT=<port>,
      IPADDRESS=<IpAddress>,IDLEMIN=<IdleMin>,
      CONNECTTIME=<connecttime>,HANDLE=<Handle>,
      INH=<Inh>"
;
```

Parameters:

UID Identifies the AID as a user. The UID is the user ID or login name. A null value is equivalent to "ALL"; that is, by leaving the field blank, all values configured in the system for the command will be returned.

Type: string
Range: 8 – 16 characters
Default value: none

slot Identifies whether the user is logged into the switch through the active or standby System Processor module.

Type: enum
Range: SP-{A-B}
Default value: none

port Identifies whether the user is connected to the switch through the Ethernet or a craft port.

Type: enum
Range: LAN = Ethernet port
SERIAL = Craft port
Default value: none

IpAddress Identifies the IP address for the port through which the user connects.

Type: string
Range: {0-255).{0-255).{0-255).{0-255)
Default value: none

IdleMin Identifies the time in minutes the connection has been idle.

Type: integer
Range: {0-32767}
Default value: none

connecttime Identifies the date and time the user connected to the system.

Type: string
Range: {Day MM DD YYYY} {HH.MM.DD}
Default value: none

Handle Identifies a TL1 session internally to the TL1 agent.

Type: integer
Range: {0-32767}
Default value: none

Inh Identifies whether the session is inhibited.

Type: BoolYN
Range: N = session is not inhibited
Y = session is inhibited
Default value: none

Input Example:

```
RTRV-SESSIONS;
```

Output Example:

```
   lucent 2005-01-28 14:37:49
M  0 COMPLD
   "lucent:SLOT=SP-B,PORT=LAN,IP=10.0.100.108,
      IDLEMIN=0,CONNECTTIME=Fri 01 28 2005 11.12.44,
      HANDLE=13,INH=Y"
;
```

Related Commands: none

SET-SID

Command:

SET-SID: Set System ID

Description:

SET-SID lets the user set the system identification code for the switch. Lucent recommends setting the value of the SID parameter to the CLLI code for the system.

Category: System **Security:** NSA

Input Format:

```
SET-SID:[TID]::[CTAG]::<sid>;
```

Output Format: none

Parameters:

sid Identifies the system identification code assigned to the switch. The value of SID may be any text string. The recommended value for this parameter is the CLLI code.

Type: string
Range: limited to 20 characters
Default value: none

Input Example:

```
SET-SID:::::CLLI_CODE;
```

Related Commands: none

NOTES

EXEC-BACKUP/RESTORE-PLEXUS

Commands:

EXEC-BACKUP-PLEXUS: Execute Backup Switch

EXEC-RESTORE-PLEXUS: Execute Restore Switch

Descriptions:

EXEC-BACKUP-PLEXUS allows the user to copy the configuration data for the switch, including the TimesTen database in the switch, to both another location in the network as well as locally to SP-A and SP-B. The command first copies the configuration data to a file in the *dbCurrent* directory. It then changes the working directory to *dbCurrent*, backs up the content of *dbCurrent* locally to a compressed tar file (the tar file name is the host's <TID>_<date>_<time>), sends the tar file to the specified destination host and directory (via ftp), and lastly saves the tar file to */localbackup* on SP-A and SP-B.

EXEC-RESTORE-PLEXUS allows the user to copy the configuration data for the switch, including the TimesTen database, to the switch either from another location in the network, or from SP-A and SP-B. The command first creates the directory */Lucent/backups* when restoring from another location in the network; it deletes the contents if the directory already exists. It then copies the backup configuration data tar file (via ftp for a remote source) from the specified source host and directory to */Lucent/backups*. The configuration data for the switch is restored at the next system initialization (re-boot). Note that the TID (target identifier; i.e., the network name of the switch) is mandatory – use RTRV-HDR to obtain the name if unknown.

Category: System **Security:** SW for both commands

Input Formats:

```
EXEC-BACKUP-PLEXUS:[TID]:[<src>]:[CTAG]::<desthost>,
   <username>,<password>,<destdir>,[<suppressoutput>],
   [<tmout>];
```

```
EXEC-RESTORE-PLEXUS:<TID>:[<src>]:[CTAG]::<srchost>,
   <username>,<password>,<srcpath>,[<suppressoutput>],
   [<tmout>];
```

Output Formats (both commands):

```
   SID DATE TIME
M  CTAG COMPLD
   <text>
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

desthost Identifies (for BACKUP) the remote host, containing the destination directory identified by *destdir*, for backing up the switch configuration data .

Type: string
Range: ANSI characters
Default value: none

srchost Identifies (for RESTORE) the remote host (or the local host or IP address), containing the source file identified in *srcpath*, for retrieving the switch configuration data. Entering the value “0.0.0.0” designates the local host.

Type: string
Range: ANSI characters
Default value: none

username Identifies a valid user name for the host identified by *desthost*.

Type: string
Range: alphanumeric characters
Default value: none

password Identifies a valid password for the host identified by *desthost*.

Type: string
Range: alphanumeric characters
Default value: none

destdir Identifies (for BACKUP) the destination directory for the switch configuration data. The value of *destdir* must start with a "/" unless the destination directory is relative to (within) the current working directory (set with the EXEC-CD command).

Type: string
Range: ANSI characters
Default value: none

srcpath Identifies (for RESTORE) the path to the source file for the switch configuration data on the remote host specified by *srchost*.

Type: string
Range: ANSI characters
Default value: none

suppressoutput Identifies whether to suppress the output for the command.

Type: BoolYN
Range: N = do not suppress output
Y = suppress output
Default value: N

tmout Identifies the time out interval in minutes. The command execution terminates if the command has not executed within the *tmout* interval (due to a stalled FTP process).

Type: integer
Range: {1-120}
Default value: 30

text Identifies (in output) the shell commands as they execute, as well as any error messages.

Type: string
Range: ANSI characters
Default value: none

Input Examples:

```
EXEC-BACKUP-PLEXUS:::::remote_host,johnuser,*******,
   /remote_server/backup_dir;
```

(Restore from a remote host)

```
EXEC-RESTORE-PLEXUS:::::remote_host,johnuser,*******,
   /remote_server/backup_dir/backup_rel_date_time;
```

(Restore from the local host)

```
EXEC-RESTORE-PLEXUS:::::0.0.0.0,johnuser,*******,
   /localbackup;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   Shell command 1
   Shell command 2
      .
      .
      .
   Shell command n
;
```

Related Commands:

```
DLT/ENT/RTRV-BACKUP-SYS       RTRV-BKUPSCHED-EQPT
SCHED-BKUP-EQPT
```

EXEC-BULK-DOWNLOAD

Command:

EXEC-BULK-DOWNLOAD: Execute Bulk Download

Description:

EXEC-BULK-DOWNLOAD lets the user efficiently provision large-scale configurations, such as Class 4 subscribers, on the switch. The bulk download mechanism allows more efficient provisioning of massive configurations, compared to TL1 scripting, by processing provisioning operations in bulk. Bulk processing eliminates much of the cumulative overhead and latency incurred by processing multiple TL1 commands from a TL1 session. The switch uses a subset of TL1 commands to implement the individual *provisioning operations* required by the bulk download feature. A file containing one or more of these commands defines a bulk download script, for which blank lines and comment lines (which start with the "#" character) are allowed.

Category: System **Security:** SW

Input Format:

```
EXEC-BULK-DOWNLOAD:[TID]:[<src>]:[CTAG]::<srchost>,
   <username>,<password>,<srcpath>,[<tmout>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   <text>
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

srchost Identifies the host (or its IP address), containing the bulk download script identified in *srcpath*, for retrieving the switch configuration data. Entering the value "0.0.0.0" designates the local host.

Type: string
Range: ANSI characters
Default value: none

username Identifies a valid user name for the host identified by *srchost*.

Type: string
Range: alphanumeric characters
Default value: none

password Identifies a valid password for the host identified by *srchost*. The entered password displays as a series of asterisks.

Type: string
Range: alphanumeric characters
Default value: none

srcpath Identifies the path to the bulk download script for the switch configuration data on the remote host specified by *srchost*.

Type: string
Range: ANSI characters
Default value: none

tmout Identifies the time out interval in minutes. The command execution terminates if the bulk file specified by *srcpath* has not been transferred to the switch within the *tmout* interval (due to processing problems or a stalled FTP process). The *tmout* interval does not apply to the execution of the commands in the bulk file.

Type: integer
Range: {1-120}
Default value: 30

text Identifies (in output) the cumulative status of the bulk download operation. A status of failed is returned if one or more commands within the specified bulk download file fails on execution. You can examine the bulk log file for detailed status for each command executed during the bulk download operation. A summary report is at the end of the log file.

Type: string
Range: ANSI characters
Default value: none

Input Examples:

```
EXEC-BULK-DOWNLOAD:::::128.64.32.16,johnuser,*******,
   /home/scripts/bulk.txt;
```

or

```
EXEC-BULK-DOWNLOAD:::::lucenthost,johnuser,*******,
   /home/scripts/bulk.txt;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   BULK download operation succeeded
;
```

Related Commands: none

EXEC-CAT

Command:

EXEC-CAT: Execute CAT

Description:

EXEC-CAT lets the user retrieve the contents of a file.

Category: System **Security:** View

Input Format:

```
EXEC-CAT:[TID]:[<src>]:[CTAG]::<file>,
   [<suppressoutput>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   <text>
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

file Identifies a single file from which to retrieve text. The value of *file* must start with a "/" unless the file is relative to (within) the current working directory (set with the EXEC-CD command).

Type: string
Range: ANSI characters
Default value: none

suppressoutput Identifies whether to suppress the output for the command.

Type: BoolYN
Range: N = do not suppress output
Y = suppress output
Default value: N

text Identifies (in output) the shell commands as they execute, as well as any error messages.

Type: string
Range: ANSI characters
Default value: none

Input Example:

```
EXEC-CAT:::::/tmp/shopping.txt;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   milk
   bread
   fruit
   cat food
;
```

Related Commands: none

EXEC-CD

Command:

EXEC-CD: Execute Current Directory

Description:

EXEC-CD lets the user, for the current session, set the working directory used for subsequent "EXEC" commands.

Category: System **Security:** View

Input Format:

```
EXEC-CD:[TID]:[<src>]:[CTAG]::[<dir>],
   [<suppressoutput>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

dir Identifies the new current directory. This parameter defaults to the root directory, identified by a slash ("/"). The new current directory is a subdirectory of the old current directory if the value of *dir* does not start with "/".

Type: string
Range: ANSI characters
Default value: /

suppressoutput Identifies whether to suppress the output for the command.

Type: BoolYN
Range: N = do not suppress output
Y = suppress output
Default value: N

Input Example:

```
EXEC-CD:::::/tmp;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
;
```

Related Commands: none

EXEC-CP / EXEC-CP-FROMSTBY/TOSTBY

Commands:

EXEC-CP: Execute Copy

EXEC-CP-FROMSTBY: Execute Copy From Standby

EXEC-CP-TOSTBY: Execute Copy To Standby

Descriptions:

EXEC-CP lets the user copy and/or rename files or directories.

EXEC-CP-FROMSTBY lets the user copy files or directories from the standby processor to the active. If *source* represents a single file, *dest* can be a directory or a file (which allows renaming the file). If *source* represents a directory, *dest* must be a directory and the "-r" switch is mandatory.

EXEC-CP-TOSTBY lets the user copy files or directories from the active processor to the standby. If *source* represents a single file, *dest* can be a directory or a file (which allows renaming the file). If *source* represents a directory, *dest* must be a directory and the "-r" switch must be used.

Category: System **Security:** SW for all commands

Input Formats:

```
EXEC-CP:[TID]:[<src>]:[CTAG]::[<switches>],<source>,
   [<dest>],[<suppressoutput>];
EXEC-CP-FROMSTBY:[TID]:[<src>]:[CTAG]::[<switches>],
   <source>,[<dest>],[<suppressoutput>];
EXEC-CP-TOSTBY:[TID]:[<src>]:[CTAG]::[<switches>],
   <source>,<dest>,[<suppressoutput>];
```

Output Formats (all commands):

```
   SID DATE TIME
M  CTAG COMPLD
   <text>
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

switches Identifies (for EXEX-CP) options affecting the copying process (can be one or more values separated by a space).

Type: string
Range: -p = Preserve (preserve file attributes if possible)
-r = copy recursively, non-directories as files
-v = Verbose (explain what is being done)
Default value: null

switches Identifies (for EXEX-CP-FROMSTBY/TOSTBY) options affecting the copying process (can be one or more values separated by a space).

Type: string
Range: -p = Preserve (preserve file attributes if possible)
-r = Copy recursively, non-directories as files
Default value: null

source Identifies a file specification to copy; by using wildcards (e.g., "*"), it can represent one or more files or directories. Wildcard characters cannot be used in EXEC-CP-TOSTBY. The value of *source* must start with a "/" unless the source file/directory is relative to (within) the current working directory (set with the EXEC-CD command).

Type: string
Range: ANSI characters
Default value: none

dest Identifies the destination file/directory for the copied file/directory. For EXEC-CP-TOSTBY, it identifies the destination file/directory on the standby processor for the copied file/directory. The value of *dest* must start with a "/" unless the destination file/directory is relative to (within) the current working directory (set with the EXEC-CD command). For EXEC-CP and EXEC-CP-FROMSTBY, *dest* defaults to the current working directory.

Type: string
Range: ANSI characters
Default value: null

suppressoutput Identifies whether to suppress the output for the command.

Type: BoolYN
Range: N = do not suppress output
Y = suppress output
Default value: N

text Identifies (in output) the shell commands as they execute, as well as any error messages.

Type: string
Range: ANSI characters
Default value: none

Input Examples:

```
EXEC-CP:::::-r,emf.log,emf.log2;
EXEC-CP-FROMSTBY:::::-r,/tmp/f*,/tmp/foo;
EXEC-CP-TOSTBY:::::-p,/tmp/myfiles.tar,/tmp/testdir;
```

Output Examples:

(For EXEC-CP)

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   /bin/cp -r emf.log emf.log2
;
```

(For EXEC-CP-FROMSTBY)

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   cd /tmp/foo; /bin/rcp –r 192.168.253.27:tmp/f* /tmp/foo
;
```

(For EXEC-CP-TOSTBY)

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   /bin/rcp -p /tmp/myfiles.tar 192.168.253.26:/tmp/testdir
;
```

Related Commands: none

EXEC-FTP-GET/PUT

Commands:

EXEC-FTP-GET: Execute FTP Get

EXEC-FTP-PUT: Execute FTP Put

Descriptions:

EXEC-FTP-GET lets the user get a file from a remote host and copy it to a destination directory on the active processor via binary-mode file transfer protocol.

EXEC-FTP-PUT lets the user copy a local file to a destination directory on a remote host via binary-mode file transfer protocol.

Category: System **Security:** SW for both commands

Input Formats:

```
EXEC-FTP-GET:[TID]:[<src>]:[CTAG]::<srchost>,
   <username>,<password>,<srcfile>,[<destdir>],
   [<suppressoutput>],[<tmout>];
EXEC-FTP-PUT:[TID]:[<src>]:[CTAG]::<desthost>,
   <username>,<password>,<srcfile>,<destdir>,
   [<suppressoutput>],[<tmout>];
```

Output Formats (both commands):

```
   SID DATE TIME
M  CTAG COMPLD
   <text>
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

srchost Identifies (in FTP-GET) the host for the source file identified by *srcfile*.

Type: string
Range: ANSI characters
Default value: none

desthost Identifies (in FTP-PUT) the remote host containing the destination directory identified by *destdir*.

Type: string
Range: ANSI characters
Default value: none

username Identifies a valid user name for the host identified by *srchost* or *desthost*.

Type: string
Range: alphanumeric characters
Default value: none

password Identifies a valid password for the host identified by *srchost* or *desthost*. The password will not display when entered.

Type: string
Range: alphanumeric characters
Default value: none

srcfile Identifies a file (or, by using wildcards, files) to get and copy, or to copy to the destination directory. The value of *srcfile* must start with a "/" unless the source file(s)/directory(ies) is relative to (within) the current working directory (set with the EXEC-CD command).

Type: string
Range: ANSI characters
Default value: none

destdir Identifies the destination directory for the copied file. The value of *destdir* must start with a "/" unless the destination directory is relative to (within) the current working directory (set with the EXEC-CD command). For FTP-GET, *destdir* defaults to the current working directory.

Type: string
Range: ANSI characters
Default value: null

suppressoutput Identifies whether to suppress the output for the command.

Type: BoolYN
Range: N = do not suppress output
Y = suppress output
Default value: N

tmout Identifies the time out interval in minutes. The command execution terminates if the command has not executed within the *tmout* interval (due to a stalled FTP process).

Type: integer
Range: {1-120}
Default value: 30

text Identifies (in output) the shell commands as they execute, as well as any error messages.

Type: string
Range: ANSI characters
Default value: none

Input Examples:

```
EXEC-FTP-GET:::::192.168.253.27,JOHNUSER,********,
   /tmp/myfiles.tar,/tmp;
EXEC-FTP-PUT:::::192.168.253.27,JOHNUSER,********,
   /tmp/myfiles.tar,/tmp;
```

Output Examples:

(For EXEC-FTP-GET)

Note: Ignore the warning in lines 12 and 13 of the following example; it is due to a bug in the LYNX operating system that generates it when getting multiple files.

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   /bin/ftp -inv
   Connected to 192.168.253.27.
   220 malt FTP server (Version 4.162 Mon Nov 10 9:50:37 PST 1988) ready.
   331 Password required for root.
   230 User root logged in.
   200 Type set to I.
   Local directory now /tmp
   250 CWD command successful.
   257 "/tmp" is current directory.
   WARNING! 536934952 bare linefeeds received in ASCII mode
   File may not have transferred correctly.
   local: myfiles.tar remote: myfiles.tar
   200 PORT command successful.
   150 Opening BINARY mode data connection for myfiles.tar (1264 bytes).
   226 Transfer complete.
   1264 bytes received in 0.023 seconds (53 Kbytes/s)
   221 Goodbye.
   /* EXEC-FTP-GET */
;
```

(For EXEC-FTP-PUT)

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   /bin/ftp -inv
   Connected to 192.168.253.27.
   220 malt FTP server (Version 4.162 Mon Nov 10 9:50:37 PST 1988) ready.
   331 Password required for root.
   230 User root logged in.
   200 Type set to I.
   Local directory now /tmp
   250 CWD command successful.
   257 "/tmp" is current directory.
   local: myfiles.tar remote: myfiles.tar
   200 PORT command successful.
   150 Opening BINARY mode data connection for myfiles.tar.
   226 Transfer complete.
   1264 bytes sent in 0.02 seconds (62 Kbytes/s)
   221 Goodbye.
   /* EXEC-FTP-PUT */
;
```

Related Commands: none

EXEC-LS

Command:

EXEC-LS: Execute List

Description:

EXEC-LS lets the user list directory contents and file information.

Category: System **Security:** View

Input Format:

```
EXEC-LS:[TID]:[<src>]:[CTAG]::[<switches>],[<files>],
   [<suppressoutput>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   <text>
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

switches Identifies options affecting the listing process (can be one or more values separated by a space).

Type: string
Range: -1 = One line of output is generated for each file. This option is assumed when standard output is not to a terminal.

-A = When listing directory contents, all files are included, including those whose names begin with "." but excluding "." and "..".

-C = ls will list as many files per output line as possible. This option is assumed when standard output is a terminal.

-F = ls appends markers to file names in the listing to indicate file type, as follows:

/ = Directory.
& = Named pipe (FIFO).
= = Socket (not implemented in LynxOS).
@ = Symbolic link.
* = Executable regular file.
| = IPC special file.

-L = For each argument or directory element which is a symbolic link, information about the file or directory referenced by the link (instead of the link itself) is used for printing, sorting, and / or marking the output.

-R = Each subdirectory encountered while scanning a directory is itself examined.

-T types = Only files whose type is one of those specified by types will be shown. The types list should be a string of one or more of -, b, c, d, f, l, p, r, s, i, I, and +, as described below.

-a = When listing directory contents, all files are printed, including files which begin with ".".

-c = The time value examined for printing (-l) and sorting (-u) will be the inode change time instead of the modification time.

-d = Instructs ls to give information about directory arguments themselves instead of listing the contents of the directories.

-f = Each argument is interpreted as a directory, and contents are listed in the order encountered (no sort is performed). The -f option disables -l, -t, -s, and -r, and enables -a.

-g = Group ID of each file is printed (only effective when -l is also given).

-i = The inode number of each file is printed.

-l = Extended information is given for each file, including file mode, number of links, owner, size in bytes, and time (usually modification time, but optionally access or inode change time). If a file is a special file, the major and minor numbers are given in place of file size. If a file is a symbolic link, then the target of the link is given after the file name.

-n = Restricts listing to files created on the current system date.

-q = Forces non-printable characters in file names to be printed as "?". This option is assumed when standard output is a terminal.

-r = Reverses sort order.

-s = Lists size of each file, in 512-byte blocks.

-t = Sorts by time rather than by name.

-u = Uses time of last access rather than modification time for printing (-l) and sorting (-t).

Default value: null

files Identifies the target directory or file for the command. The value of *files* must start with a "/" unless the target directory/file is relative to (within) the current working directory (set with the EXEC-CD command). *files* defaults to the current working directory and can contain wildcard characters (e.g., "*").

Type: string
Range: ANSI characters
Default value: null

suppressoutput Identifies whether to suppress the output for the command.

Type: BoolYN
Range: N = do not suppress output
Y = suppress output
Default value: N

text Identifies (in output) the directories and files within the present working directory.

Type: string
Range: ANSI characters
Default value: none

Input Example:

```
EXEC-LS:::::,/TMP;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   cd /tmp; /bin/ls
   emf.log
   pmiFileList
   telnetlog
;
```

Related Commands: none

EXEC-MKDIR

Command:

EXEC-MKDIR: Execute Make Directory

Description:

EXEC-MKDIR lets the user create a new directory.

Category: System **Security:** SW

Input Format:

```
EXEC-MKDIR:[TID]:[<src>]:[CTAG]::<dir>,
   [<suppressoutput>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   <text>
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

dir Identifies the new directory. The new directory is a subdirectory of the current working directory if the value of *dir* does not start with "/" or "../".

Type: string
Range: ANSI characters
Default value: none

suppressoutput Identifies whether to suppress the output for the command.

Type: BoolYN
Range: N = do not suppress output
Y = suppress output
Default value: N

text Echoes the entered command in output.

Type: string
Range: ANSI characters
Default value: none

Input Example:

```
EXEC-MKDIR:::::newdir;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   cd /; /bin/mkdir newdir
;
```

Related Commands: none

EXEC-MV

Command:

EXEC-MV: Execute Move

Description:

EXEC-MV lets the user move a single file or directory.

Category: System **Security:** SW

Input Format:

```
EXEC-MV:[TID]:[<src>]:[CTAG]::[<switches>],<source>,
   <dest>,[<suppressoutput>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   <text>
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

switches Identifies options affecting the copying process (can be one or more values separated by a space).

Type: string
Range: -f = Force writing over existing files without prompting
Default value: null

source Identifies a single file/directory to move. The value of *source* must start with a "/" unless the source file/directory is relative to (within) the current working directory (set with the EXEC-CD command). *source* can contain wildcard characters (e.g., "*").

Type: string
Range: ANSI characters
Default value: none

dest Identifies the destination file/directory for the moved file/directory. The value of *dest* must start with a "/" unless the destination file/directory is relative to (within) the current working directory (set with the EXEC-CD command). If *dest* is a file, then the command changes the name (value) of *source* to that of *dest*. If *dest* is a directory, then the command moves the file/directory identified by *source* to *dest*.

Type: string
Range: ANSI characters
Default value: none

suppressoutput Identifies whether to suppress the output for the command.

Type: BoolYN
Range: N = do not suppress output
Y = suppress output
Default value: N

text Echoes the entered command in output.

Type: string
Range: ANSI characters
Default value: none

Input Example:

```
EXEC-MV:::::-f,emf.log2,/TMP;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   /bin/mv -f emf.log2 /tmp/emf.log2
;
```

Related Commands: none

EXEC-NETSTAT

Command:

EXEC- NETSTAT: Execute Network Status

Description:

EXEC-NETSTAT lets the user check the status of Ethernet interfaces and routing tables. It symbolically displays the contents of various network-related data structures. There are a number of output formats, depending on the options for the information presented. The first form of the command displays a list of active sockets for each protocol. The second form presents the contents of one of the other network data structures according to the option selected. Using the third form, with a wait interval specified, netstat will continuously display the information regarding packet traffic on the configured network interfaces. The fourth form displays statistics about the named protocol.

Category: System **Security:** SW

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   <text>
;
```

Input Format:

```
EXEC-NETSTAT:[TID]:[<spOrIom>]:[CTAG]::[<switches>],
   [<suppressoutput>];
```

Parameters:

spOrIom Identifies the AID as a module in the switch. A null value is equivalent to "ALL"; that is, by leaving the field blank, the status of Ethernet interfaces and routing tables for all system modules will be returned.

Type: SPorIOM
Range: IOM-{8,10}
SP-{A-B}
Default value: none

switches Identifies options affecting the listing process (can be one or more values separated by a space). This parameter is not supported presently; switches are ignored.

Type: string

Range: -A = With the default display, show the address of any protocol control blocks associated with sockets; used for debugging.

-a = With the default display, show the state of all sockets; normally sockets used by server processes are not shown.

-d = With either interface display (option -i or an interval, as described below), show the number of dropped packets

-f = Limit statistics or address control block reports to those of the specified address family (currently INET only).

-g = Show information related to multicast (group address) routing. By default, show the IP Multicast virtual-interface and routing tables. If the -s option is also present, show multicast routing statistics.

-I = Show information about the specified interface; used with a wait interval as described below.

-i = Show the state of interfaces which have been auto-configured (interfaces statically configured into a system, but not located at boot time are not shown). If the -a option is also present, multicast addresses currently in use are shown for each Ethernet interface and for each IP interface address. Multicast addresses are shown on separate lines following the interface address with which they are associated.

-N = Extract the name list from the specified system instead of the default /vmunix.

-n = Show network addresses as numbers (normally netstat interprets addresses and attempts to display them symbolically). This option may be used with any of the display formats.

-p = Show statistics about protocol, which is either a well-known name for a protocol or an alias for it. Some protocol names and aliases are listed in the file /etc/protocols. A null response typically means that there are no interesting numbers to report. The program will complain if protocol is unknown or if there is no statistics routine for it.

-r = Show the routing tables. When -s is also present, show routing statistics instead.

-s = Show per-protocol statistics. If this option is repeated, counters with a value of zero are suppressed.

-w = Show network interface statistics at intervals of wait seconds.

Default value: NULL

suppressoutput Identifies whether to suppress the output for the command.

Type: BoolYN
Range: N = do not suppress output
Y = suppress output
Default value: N

text Identifies the output for the command. The default display, for active sockets, shows the local and remote addresses, send and receive queue sizes (in bytes), protocol, and theinternal state of the protocol. Address formats are of the form "host.port" or "network.port" if a socket's address specifies a network but no specific host address. When known the host and network addresses are displayed symbolically according to the data bases /etc/hosts and /etc/networks, respectively. If a symbolic name for an address is unknown, or if the -n option is specified, the address is printed numerically, according to the address family. Unspecified, or "wildcard", addresses and ports appear as "*".

The interface display provides a table of cumulative statistics regarding packets transferred, errors, and collisions. The network addresses of the interface and the maximum transmission unit ("mtu") are also displayed.

The routing table display indicates the available routes and their status. Each route consists of a destination host or network and a gateway to use in forwarding packets. The flags field shows a collection of information about the route stored as binary choices.

Direct routes are created for each interface attached to the local host; the gateway field for such entries shows the address of the outgoing interface. The refcnt field gives the current number of active uses of the route. Connection oriented protocols normally hold on to a single route for the duration of a connection while connectionless protocols obtain a route while sending to the same destination. The use field provides a count of the number of packets sent using that route. The interface entry indicates the network interface utilized for the route.

Type: string
Range: ANSI characters
Default value: none

Input Example:

```
EXEC-NETSTAT;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD

Internet:
Destination      Gateway            Flags     Refs     Use
Interface
default          10.7.0.1           UGS         4    66700  mgt0
10.7             link#12            UC          0        0  mgt0
10.7.0.1         0:d0:bc:f5:2:f8    UHL         1        0  mgt0
10.7.48.26       0:30:fa:0:2:94     UHL         1        4  lo0
10.7.48.27       0:30:fa:0:3:60     UHL         1     1049  mgt0
10.7.206.206     link#12            UHL         1   178613  mgt0
127.0.0.1        127.0.0.1          UH        105  9171348  lo0
192.168.251      link#15            UC          0        0  dbg0
192.168.252      192.168.252.26     U          16  4614526  sar0
192.168.253      link#13            UC          0        0  rep0
192.168.253.27   0:30:fa:0:3:61     UHL         7  2703922  rep0
;
```

Related Commands: none

EXEC-PWD

Command:

EXEC-PWD: Execute Present Working Directory

Description:

EXEC-PWD lets the user retrieve the path name of the current working directory. The user's current working directory is the default directory for other EXEC commands.

Category: System **Security:** View

Input Format:

```
EXEC-PWD:[TID]:[<src>]:[CTAG]::[<suppressoutput>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<com>:<dir>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

com Identifies the AID (in output) as the switch.

Type: COM
Range: COM
Default value: COM

suppressoutput Identifies whether to suppress the output for the command.

Type: BoolYN
Range: N = do not suppress output
Y = suppress output
Default value: N

dir Identifies (in output) the path name for current working directory.

Type: string
Range: ANSI characters
Default value: none

Input Example:

```
EXEC-PWD;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   COM:/tmp
;
```

Related Commands: none

EXEC-RM/RMDIR

Commands:

EXEC-RM: Execute Remove

EXEC-RMDIR: Execute Remove Directory

Descriptions:

EXEC-RM lets the user remove (delete) a single file or, by using wildcards, files

EXEC-RMDIR lets the user remove (delete) a single directory or, by using wildcards, directories.

Category: System **Security:** SW for both commands

Input Formats:

```
EXEC-RM:[TID]:[<src>]:[CTAG]::[<switches>],<file>,
   [<suppressoutput>];
EXEC-RMDIR:[TID]:[<src>]:[CTAG]::<dir>,
   [<suppressoutput>];
```

Output Formats (both commands):

```
   SID DATE TIME
M  CTAG COMPLD
   <text>
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

switches Identifies (for EXEC-RM) options affecting the file removal process (can be one or more values separated by a space).

Type: string
Range: -f = Force removal of unwritable files without prompting
-r = Recursively remove a directory subtree
-v = Generates verbose output
Default value: null

file Identifies (for EXEC-RM) the file(s) to remove. The value of *file* must start with a "/" unless the source file/directory is relative to (within) the current working directory (set with the EXEC-CD command). *file* can contain wildcard characters (e.g., "*").

Type: string
Range: ANSI characters
Default value: none

dir Identifies (for EXEC-RMDIR) the directories to remove. The value of *dir* must start with a "/" unless the affected directory is relative to (within) the current working directory (set with the EXEC-CD command). *dir* can contain wildcard characters (e.g., "*").

Type: string
Range: ANSI characters
Default value: none

suppressoutput Identifies whether to suppress the output for the command.

Type: BoolYN
Range: N = do not suppress output
Y = suppress output
Default value: N

text Identifies (in output) the shell commands as they execute, as well as any error messages.

Type: string
Range: ANSI characters
Default value: none

Input Examples:

```
EXEC-RM:::::-f,emf.log2;
EXEC-RMDIR:::::/TMP;
```

Output Examples:

(For EXEC-RM)

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   /bin/rm -f emf.log2
;
```

(For EXEC-RMDIR)

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   /bin/rmdir tmp
;
```

Related Commands: none

EXEC-RUN-UPGRADE

Command:

EXEC-RUN-UPGRADE: Execute Run Upgrade

Description:

EXEC-RUN-UPGRADE lets the user run a script on an active or standby System Processor module to install the TimesTen database. Note that, as a security feature, the TID (target identifier; i.e., the network name of the switch) is mandatory – use RTRV-HDR to obtain the name if unknown.

Category: System **Security:** SW

Input Format:

```
EXEC-RUN-UPGRADE:<TID>:<sp>:[CTAG]::
   [<suppressoutput>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   <text>
;
```

Parameters:

sp Identifies the AID as an active or standby System Processor module in the switch.

Type: SP
Range: SP-{A-B}
Default value: none

suppressoutput Identifies whether to suppress the output for the command.

Type: BoolYN
Range: N = do not suppress output
Y = suppress output
Default value: N

text Echoes the entered command in output.

Type: string
Range: ANSI characters
Default value: none

Input Example:

```
EXEC-RUN-UPGRADE:lucent:SP-A;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   /bin/rsh 192.168.253.26 "cd /Lucent/swCPU/CurrRel/
      system/scripts/;" ./uprev
   .sh -justinstall
;
```

Related Commands: none

EXEC-TAR-CREATE/EXTRACT/EXTRACTSTBY

Commands:

EXEC-TAR-CREATE: Execute Tar Create

EXEC-TAR-EXTRACT: Execute Tar Extract

EXEC-TAR-EXTRACTSTBY: Execute Tar Extract Standby

Descriptions:

EXEC-TAR-CREATE lets the user create an archive file (compressed tarfile).

EXEC-TAR-EXTRACT lets the user extract files from an archive file (compressed tarfile) into the current working directory.

EXEC-TAR-EXTRACTSTBY lets the user extract files from an archive file (tarfile) on the standby System Processor module into the current working directory.

Category: System **Security:** SW for all commands

Input Formats:

```
EXEC-TAR-CREATE:[TID]:[<src>]:[CTAG]::<tarfile>,
   <files>,[<suppressoutput>];
EXEC-TAR-EXTRACT:[TID]:[<src>]:[CTAG]::<tarfile>,
   [<suppressoutput>];
EXEC-TAR-EXTRACTSTBY:[TID]:[<src>]:[CTAG]::<tarfile>,
   <path>,[<suppressoutput>];
```

Output Formats (all commands):

```
   SID DATE TIME
M  CTAG COMPLD
   <text>
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

tarfile Identifies the complete file path to the tarfile to either create, or from which to extract files (the tarfile must be on the standby System Processor for EXEC-TAR-EXTRACTSTBY). The value of *tarfile* must start with a "/" unless the affected file/directory is relative to (within) the current working directory (set with the EXEC-CD command). *tarfile* cannot contain wildcard characters (e.g., "*").

Type: string
Range: ANSI characters
Default value: null

files Identifies (for EXEC-TAR-CREATE) the file or directory to archive. The value of *files* must start with a "/" unless the affected file/directory is relative to (within) the current working directory (set with the EXEC-CD command). *files* can contain wildcard characters (e.g., "*").

Type: string
Range: ANSI characters
Default value: none

path Identifies (for EXEC-TAR-EXTRACTSTBY) the directory on the standby System Processor module into which the files are extracted.

Type: string
Range: ANSI characters
Default value: none

suppressoutput Identifies whether to suppress the output for the command.

Type: BoolYN
Range: N = do not suppress output
Y = suppress output
Default value: N

text Echoes the entered command in output.

Type: string
Range: ANSI characters
Default value: none

Input Examples:

```
EXEC-TAR-CREATE:::::/tmp/myfiles.tar,file*;
EXEC-TAR-EXTRACT:::::/tmp/myfiles.tar;
EXEC-TAR-EXTRACTSTBY:::::/tmp/testdir/myfiles.tar,
   /tmp/newfiledir;
```

Output Examples:

(For EXEC-TAR-CREATE)

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   /bin/tar -czvf /tmp/myfiles.tar file*
   file1
   file2
   file3
;
```

(For EXEC-TAR-EXTRACT)

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   /bin/tar -xzvf /tmp/myfiles.tar
   file1
   file2
   file3
;
```

(For EXEC-TAR-EXTRACTSTBY)

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   /bin/tar -xzvf /tmp/testdir/myfiles.tar
   file1
   file2
   file3
;
```

Related Commands: none

NOTES

DLT/ENT/RTRV-CALL-CAPTVERBOSE

Commands:

DLT-CALL-CAPTVERBOSE: Delete Call Capture Verbose

ENT-CALL-CAPTVERBOSE: Enter Call Capture Verbose

RTRV-CALL-CAPTVERBOSE: Retrieve Call Capture Verbose

Descriptions:

DLT-CALL-CAPTVERBOSE let the user turn off a call trace observation (capture) session for a specific calling party and/or called party number.

ENT-CALL-CAPTVERBOSE lets the user establish a call trace observation (capture) session for a specific calling party and/or called party number, whether autonomous messages are displayed during the session, and the duration for the session. At least one number must be entered, even though both the calling party and called party numbers are optional parameters.

RTRV-CALL-CAPTVERBOSE lets the user retrieve the calling party and/or called party number(s) for (a) call trace observation (capture) session(s), whether autonomous messages are displayed during the session(s), and the duration for the session(s). At least one number will be returned, even though both the calling party and called party numbers are optional parameters in the response.

Category: Diagnosis **Security:** NSA for all commands

Input Formats:

```
DLT-CALL-CAPTVERBOSE:[TID]:<trcId>:[CTAG];

ENT-CALL-CAPTVERBOSE:[TID]:<trcId>:[CTAG]::
   [CGPN=<cgpn>],[CDPN=<cdpn>],[SENDTL1=<sendTl1>];

RTRV-CALL-CAPTVERBOSE:[TID]:[<trcId>]:[CTAG];
```

Output Formats:

```
   SID DATE TIME
M  CTAG COMPLD
   "<trcId>:[CGPN=<cgpn>],[CDPN=<cdpn>],
      SENDTL1=<sendTl1>"
;
```

Parameters:

trcId Identifies the AID as the call trace observation session to establish.

Type: integer
Range: {1-20}
Default value: none

cgpn Identifies the affected calling party number for the call trace observation session.

Type: string
Range: up to 21 digits
Default value: none

cdpn Identifies the affected called party number for the call trace observation session.

Type: string
Range: up to 21 digits
Default value: none

sendTl1 Identifies whether to display autonomous messages received during the call trace observation session, in addition to recording them in the CALLCAPT log.

Type: BoolYN
Range: N = only log autonomous messages, no display
Y = log and display autonomous messages
Default value: N

Input Examples:

```
DLT-CALL-CAPTVERBOSE::1;

ENT-CALL-CAPTVERBOSE::1:::CGPN=5088048202,
   CDPN=6177273600,SENDTL1=N;

RTRV-CALL-CAPTVERBOSE::1;
```

Output Examples:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:CGPN=5088048202,CDPN=6177273600,SENDTL1=N"
;
```

Related Commands: none

DLT/ENT/RTRV-CAPT-SYS

Commands:

DLT-CAPT-SYS: Delete Capture System

ENT-CAPT-SYS: Enter Capture System

```
RTRV-CAPT-SYS:[TID]:[<captSysId>]:[CTAG];
```

Descriptions:

DLT-CAPT-SYS lets the user delete a server from the list of systems that can receive protocol capture session records.

ENT-CAPT-SYS lets the user add a server to the list of systems that can receive protocol capture session records.

RTRV-CAPT-SYS lets the user retrieve the IP address and receiving port number for a server that can receive protocol capture session records.

Category: Diagnosis **Security:** NSA for all commands

Input Formats:

```
DLT-CAPT-SYS:[TID]:<captSysId>:[CTAG];
ENT-CAPT-SYS:[TID]:<captSysId>:[CTAG]::<IPAddr>,
   [<port>];
RTRV-CAPT-SYS:[TID]:[<captSysId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<captSysId>:<IPAddr>,<port>"
;
```

Parameters:

captSysId Identifies the server to delete from or to add to the list of systems that can receive protocol capture session records, or (for RTRV) a server that receives protocol capture session records. The value of *captSysId* must be set to "1" as there currently can be only one server that can receive protocol capture session records.

Type: CaptSysId
Range: {1}
Default value: none

IPAddr Identifies the IP address of the capture system.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

port Identifies the port used for receiving protocol capture session records.

Type: integer
Range: {1025-65535}
Default value: 9004

Input Examples:

```
DLT-CAPT-SYS::1;
ENT-CAPT-SYS::1:::192.2.24.234,9004;
RTRV-CAPT-SYS;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:192.2.24.234,9004"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-CRS-T0

Commands:

DLT-CRS-T0: Delete Cross Connect DS0 Facility

ED-CRS-T0: Edit Cross Connect DS0 Facility

ENT-CRS-T0: Enter Cross Connect DS0 Facility

RTRV-CRS-T0: Retrieve Cross Connect DS0 Facility

Descriptions:

DLT-CRS-T0 lets the user remove "nailed-up" DS0 cross connections. It does not apply to cross connections between a DS0 and the test port. Ranges for multiple deletions cannot span multiple IOMs or T3 ports and must be contiguous on both sides of the cross connect. The number of channels in a range must be the same for *t0From* and *t0To*.

ED-CRS-T0 lets the user configure the T0 cross-connect for the test port. The command establishes the effected DS0 channel for both the IOM (specified in ED-TESTPORT) and the test port, and can specify the connection type and state. ED-CRS-T0 will not work unless you have already issued ED-TESTPORT. Setting the test port out of service with ED-TESTPORT deletes the configuration of the T0 cross-connect.

ENT-CRS-T0 lets the user establish the T0 cross connections associated with the AID or AID range. It applies only to "nailed-up" cross connections between DS0s; use ED-CRS-T0 to configure the T0 cross-connect for the test port. Ranges for multiple cross connections cannot span multiple IOMs or T3 ports (Therefore, you can configure a maximum of 672 "nailed-up" DS0s at a time.) and must be contiguous on both sides of the cross connect. The number of channels in a range must be the same for *t0From* and *t0To*. The command establishes the effected DS0 channel for both IOMs, and can specify the connection type and state. ENT-CRS-T0 will not work unless the following commands have already been issued in the listed order: ENT-EQPT, ENT-T3/STS1 (if needed), and ENT-T1.

RTRV-CRS-T0 lets the user retrieve the configuration for cross connections in the Lucent Compact Switch. It applies to both "nailed-up" DS0s and cross connections to the test port. Specify either or both AIDs to return information about the "nailed-up" DS0 cross connections. Leave the AID block blank to return information about the test port cross connection.

Category: Diagnosis **Security:** NSA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-CRS-T0:[TID]:<t0From>,[<t0To>]:[CTAG];

ED-CRS-T0:[TID]:<t0From>,<t0To>:[CTAG]::[<crsBlk>]:
   [<specBlk>]:[<pst>];

ENT-CRS-T0:[TID]:<t0From>,<t0To>:[CTAG]::[<crsBlk>]:
   [<specBlk>]:[<pst>];

RTRV-CRS-T0:[TID]:[<t0From>],[<t0To>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<t0From>,<t0To>:<pst>"
;
```

Parameters:

t0From Identifies the first AID in the AID block as a DS0 channel on an IOM which connects to another channel (in ED, the test port). A range of channels (only applies to DLT, ENT, and RTRV) is shown by the beginning and ending fully-specified (IOM + port + channel) channel numbers separated by two ampersands and a hyphen ("&&-").

Type: T0
Range: IOM-{1-17}-PORT-{1-28}-T0-{1-24}
IOM-{1-17}-T3-{1-8}-PORT-{1-28}-T0-{1-24}
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}-T0-{1-24}
Default value: none

t0To Identifies (for DLT, ENT, and RTRV) the second AID in the AID block as a DS0 channel on an IOM which connects to another channel. A range of channels is shown by the beginning and ending fully-specified (IOM + port + channel) channelnumbers separated by two ampersands and a hyphen ("&&-").

Type: T0
Range: IOM-{1-17}-PORT-{1-28}-T0-{1-24}
IOM-{1-17}-T3-{1-8}-PORT-{1-28}-T0-{1-24}
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}-T0-{1-24}
Default value: none

t0To Identifies (for ED) the second AID in the AID block as the number of the DS0 channel on the test port.

Type: TestPortNum
Range: TP-{1-24}
Default value: none

crsBlk Identifies the type of connection to the cross-connect. Currently the switch does not use this parameter; leave it blank.

Type: enum
Range: ONE-WAY = cross-connect allows transmission in one direction only
TWO-WAY = cross-connect allows transmission in both directions
Default value: none

specBlk Identifies the Specific Block, per Section 4 of Telcordia GR-199-CORE. The switch does not use this parameter; leave it blank.

Type: string
Range: alphanumeric characters
Default value: none

pst Identifies (for ENT) the primary state, per Section 4 of Telcordia GR-199-CORE. However, the concept “state” does not apply as ENT-CRS-T0 only establishes connections between DS0s; leave it blank.

Type: enum
Range: IS = In-service
OOS = Out-of-service
Default value: none

pst Identifies (for ED) the primary state for the connection through the test port. Setting the state to OOS disables the connection for the channel. The factory default is “IS”.

Type: enum
Range: IS = In-service
OOS = Out-of-service
Default value: not applicable

pst Identifies (for RTRV output) the primary state for the cross connection. For "nailed-up" DS0 cross connections the state reflects the states of the channels comprising the connection; that is, the state is "OOS" when either or both of the connected DS0s is out of service.

Type: enum
Range: IS = In-service
OOS = Out-of-service
Default value: none

Input Examples:

```
DLT-CRS-T0::
   IOM-1-T3-2-PORT-3-T0-1&&-IOM-1-T3-2-PORT-3-T0-3;

ED-CRS-T0::IOM-1-T3-2-PORT-3-T0-24,TP-1:::::IS;

ENT-CRS-T0::
   IOM-1-T3-2-PORT-3-T0-1&&-IOM-1-T3-2-PORT-3-T0-3,
   IOM-1-T3-3-PORT-3-T0-1&&-IOM-1-T3-3-PORT-3-T0-3;
```

(for "nailed-up" DS0 cross connections)

```
RTRV-CRS-T0::
   IOM-1-T3-2-PORT-3-T0-1&&-IOM-1-T3-2-PORT-3-T0-3;
```

(for the test port cross connection)

```
RTRV-CRS-T0;
```

Output Examples:

(for "nailed-up" DS0 cross connections)

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-1-T3-2-PORT-3-T0-1,IOM-1-T3-3-PORT-1-T0-1:IS"
   "IOM-1-T3-2-PORT-3-T0-2,IOM-1-T3-3-PORT-1-T0-2:IS"
   "IOM-1-T3-2-PORT-3-T0-3,IOM-1-T3-3-PORT-1-T0-3:IS"
;
```

(for the test port cross connection)

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-1-T3-2-PORT-3-T0-24,TP-1:IS"
;
```

Related Commands:

```
ED/RTRV-TESTPORT
```

ED/RTRV-TESTPORT

Commands:

ED-TESTPORT: Edit Testport

RTRV-TESTPORT: Retrieve Testport

Descriptions:

ED-TESTPORT configures the mode of operation for the test port, which provides a non-invasive method of connecting test equipment to diagnose system and network problems.

RTRV-TESTPORT lets the user retrieve the configuration information for the test port.

Category: Test **Security:** NSA for ED, View for RTRV

Input Formats:

```
ED-TESTPORT:[TID]:[<src>]:[CTAG]::<iom>,<tpmonitor>:
   [<pst>];
RTRV-TESTPORT:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:<iom>,<tpMonitor>:<pst>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

iom Identifies the sole IOM to which the test equipment connects through the test port.

Type: enum
Range: IOM-{1-17}
Default value: none

tpmonitor Identifies the function of the test port.

Type: enum
Range: INSERT = test equipment transmits signals through the test port to the IOM
MONITOR = test equipment receives signals through the test port from the IOM
Default value: none

pst Identifies the primary state of the test port. Setting the state to OOS disables alarming for the test port and deletes the configuration of the T0 cross-connect established with ED-CRS-T0.

Type: enum
Range: IS = In-service
OOS = Out-of-service
Default value: none

Input Examples:

```
ED-TESTPORT::COM:::IOM-1,MONITOR:IS;
RTRV-TESTPORT;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:IOM-1,MONITOR:IS"
;
```

Related Commands:

```
ED/RTRV-CRS-T0
```

INIT-REG-CC / RTRV-PM-CC

Commands:

INIT-REG-CC: Initialize Register Call Control

RTRV-PM-CC: Retrieve Performance Monitors Call Control

Descriptions:

INIT-REG-CC lets the user clear the counters for call control statistics.

RTRV-PM-CC lets the user retrieve current and historical performance data for call control in the Lucent Compact Switch.

Category: Signaling **Security:** NSA for INIT-REG, View for RTRV-PM

Input Formats:

```
INIT-REG-CC:[TID]:[<src>]:[CTAG]::<montype>,
   [<monval>],[<locn>],[<dirn>];
```

```
RTRV-PM-CC:[TID]:[<src>]:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<src>:<montype>,<monval>,<monlev>,<locn>,<dirn>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

montype Identifies the type of monitored call control parameter. "ALL" is the only valid input value.

Type: enum

Range: ALL = All types
ANSCALL = Number of answered calls
FDPCPAUSED = Number of call failures due to paused DPC
FRES = Number of calls processed since initiation that failed due to resource unavailability
FROUTE = Number of calls processed since initiation that failed due to route unavailability
INBICC = Number of incoming BICC calls
INCAS = Number of incoming CAS calls
INGR3 = Number of incoming GR303 calls
INISDN = Number of incoming ISDN calls
INMGCP = Number of incoming MGCP calls
INSIP = Number of incoming SIP calls
INSS7 = Number of incoming SS7 calls
LASTINITNA = Number of minutes since initialization of all counters for which there is no direction (neither RCV nor TRMT)
LASTINITRCV = Number of minutes since initialization of all RCV (receive) counters
LASTINITTRMT = Number of minutes since initialization of all TRMT (transmit) counters
LNP_CALLS_REL_BY_DONSWTCH = Number of calls released by other switch
LNP_CALLS_REL_BY_THISSWTCH = Number of calls released by the switch
LNPFAILURES = Number of LNP failures
LNPMISRTDCALLS = Number of misrouted calls
LNPQUERIES = Number of LNP queries
LNPVALID_RESP = Number of valid LNP responses
OUTBICC = Number of outgoing BICC calls
OUTCAS = Number of outgoing CAS calls
OUTGR3 = Number of outgoing GR303 calls
OUTISDN = Number of outgoing ISDN calls
OUTMGCP = Number of outgoing MGCP calls
OUTSIP = Number of outgoing SIP calls
OUTSS7 = Number of outgoing SS7 calls
RMTXFERIN = Number of incoming requests to transfer a call to a remote location
RMTXFEROUT = Number of outgoing requests by the switch to transfer a call to a remote location on a release link trunk

TBXFEROUT = Number of outgoing “trombone” (“bridge”) calls by the switch sent in response to incoming requests to transfer a call to a remote location (RMTXFERIN)
STNDGCALL = Number of established (standing) calls
TOTCALL = Number of processed calls
UNANSCALL = Number of unanswered calls
Default value: none

monval Monitored value is either the measured value of the monitored parameter, or the value to which the register identified by *montype* has been initialized. The value is in the form of numeric counts or rates. The value “0” is currently the only acceptable input value.

Type: integer
Range: {0 – 4294967295}
Default value: 0

monlev Identifies the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

locn Identifies the location of the storage counters to initialize or from which to retrieve performance data. Currently only NEND is supported.

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters. This parameter is not supported presently; leave it blank.

Type: enum
Range: ALL = All directions
NA = Direction not applicable
RCV = Receive direction only
TRMT = Transmit direction only
Default value: ALL

Input Examples:

```
INIT-REG-CC:::::ALL;
RTRV-PM-CC;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:TOTCALL,17"
   "COM:ANSCALL,12"
   "COM:FROUTE,0"
   "COM:FDPCPAUSED,0"
   "COM:FRES,0"
   "COM:UNANSCALL,5"
   "COM:STNDGCALL,0"
   "COM:LNPQUERIES,0"
   "COM:LNPFAILURES,0"
   "COM:LNPVALID_RESP,0"
   "COM:LNPMISRTDCALLS,0"
   "COM:LNP_CALLS_REL_BY_DONSWTCH,0"
   "COM:LNP_CALLS_REL_BY_THISSWTCH,0"
   "COM:LASTINITNA,5774"
   "COM:LASTINITRCV,5774"
   "COM:LASTINITTRMT,5774"
   "COM:RMTXFERIN,4"
   "COM:RMTXFEROUT,0"
   "COM:TBXFEROUT,4"
   "COM:OUTSS7,8"
   "COM:INSS7,2"
   "COM:OUTGR3,0"
   "COM:INGR3,0"
   "COM:OUTSIP,1"
   "COM:INSIP,2"
   "COM:OUTBICC,0"
   "COM:INBICC,0"
   "COM:OUTMGCP,0"
   "COM:INMGCP,0"
   "COM:OUTCAS,6"
   "COM:INCAS,9"
   "COM:OUTISDN,0"
   "COM:INISDN,0"
;
```

Related Commands:

RTRV-STATS-CC

INIT-REG-RC / RTRV-PM-RC

Commands:

INIT-REG-RC: Initialize Register Release Cause

RTRV-PM-RC: Retrieve Performance Monitors Release Cause

Descriptions:

INIT-REG-RC lets the user reset the counters for transmitted or received release cause types.

RTRV-PM-RC lets the user retrieve the number of times release cause types have been transmitted or received since the counters were last initialized.

Category: Signaling **Security:** NSA for INIT-REG, View for RTRV-PM

Input Formats:

```
INIT-REG-RC:[TID]:[<com>]:[CTAG]::[<montype>],
   [<monval>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

```
RTRV-PM-RC:[TID]:[<com>]:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<com>:<montype>,<monval>,[<vldty>],[<locn>],
      [<dirn>],[<tmper>],[<mondat>],[<montm>]"
;
```

Parameters:

com Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

montype Identifies the registers (for a type of monitored parameter) to initialize or from which to retrieve performance data. "ALL" is the only valid input value.

Type: enum

Range: ALL = All release causes
ANS_SUPER_REL = Answer supervision timer expiry (FRAUD)
AUTH_FAILURE = Authentication Failure
BCAPNOTIMPL = Bearer capability not implemented
CALL_BLOCK = Call blocked
CALLEDADDR_INCOMPLETE = Called address incomplete; T35 timeout - overlap support
CASTG_RELIND = CAS trunk group release indicator (protocol errors)
CGPTRY_DIS_OOS_CHG = calling party disconnected, out of service, or number changed
CKTCONG = Circuit/channel congestion
CODEC_NEG_FAIL = Codec negotiation failed
DB_ACCESS = Database access (Internal error: system operation failed}
DSTOUTORD = Destination out of order
EQUIPMENT_TROUBLE = Equipment trouble
EXCG_RT_ERROR = Exchange routing error
HAVE1PREFIX = Prefix 1 not dialed when required
INFO_MISSING = Internal error: parameter missing
INTERNAL = Internal error: hash list operation failed
INTFC_UNAVAIL = Interface unavailable
INTFC_UNAVAIL_BCAP = Interface unavailable BCAP
INTFC_UNAVAIL_COST = Interface unavailable COST
INV0PREFIX = Invalid 0 prefix
INV1PREFIX = Invalid 1 prefix
INVALID_CARRIER = Invalid carrier specified
INVALID_MSG = Invalid message, unspecified
INVALID_PARAM = Internal error: invalid parameter received
INVALID_TID_INFO = Internal error: TID information not valid
INVNMBFORM = Invalid number format
LM_INITIATED_REL = Layer manager initiated release
LNP_MISROUTE = LNP misrouted call
MEMORY_ALLOC = Internal error: memory allocation failed
MSG_UNSUPPORTED = Message type non-existent
NMBCHNG = Number changed
NO_DSP_RSC = Internal error: no DSP resources
NOCKTAVAIL = No circuit available

NOPARAMDISCMSG = Parameter. non-existent
NORMAL_CLRG = Normal clearing
NOROUTDST = No route to destination
NOROUTTRANSNET = No route to transit network
NOT_APPLICABLE = Internal error: invalid failure condition (proprietary)
PROTERR = Protocol error used by all protocols
REQ_CHAN_NAVAIL = Requested channel not available
RESUNAVAIL = Resources unavailable, unspecified
RT_FAILED = Routing failed
SCP_OPR_FAILED = All SCP-related operations failed
SCR_FRAUD_REL = Screen digit timer expiry (FRAUD)
SRVC_TRAN_FAILURE = Internal Error: Couldn't transmit message to service
SUBIF_NOT_PROV = Subscriber interface not provisioned
TMRRCVRY = Recovery on timer expiry
UNALLOC_NUMBER = Unallocated numbers
UNEXPECTED_MSG = Message not expected by the layer
USRBUSY = User busy
VACANT_CODE = Invalid carrier access code
WFS_UNALLOCNMB = wireless number unassigned
WFS_USR_UNAVAIL = wireless subscriber unavailable

Default value: ALL

monval Monitored value is either the measured value of the monitored parameter, or the value to which the register identified by *montype* has been initialized. The value is in the form of numeric counts or rates. The value “0” is currently the only acceptable input value.

Type: integer
Range: {0 – 2147483647}
Default value: 0

monlev Identifies (in RTRV-PM input) the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

vldty Identifies (in RTRV-PM output) the validity of the monitored interval. This parameter is not supported presently; its value will always be "NULL".

Type: enum
Range: ADJ = Data manually adjusted or initialized
COMPL = Data accumulated over the entire time period
LONG = Data accumulated over greater than the entire time period
NA = Data not available
PRTL = Data accumulated over a portion of the time period
Default value: NULL

locn Identifies the location of the storage counters to initialize or from which to retrieve performance data. This parameter is not supported presently; leave it blank.

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters. This parameter is not supported presently; leave it blank.

Type: enum
Range: BTH = Both directions
RCV = Receive direction only
TRMT = Transmit direction only
Default value: BTH

tmper The accumulation period for performance counters. The only values currently allowed for *tmper* are "15-MIN" and "24-HR". This parameter is not supported presently; leave it blank.

Type: enum
Range: {1}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)
Default value: 15-MIN

mondat Identifies the monitored date. The value indicates the beginning date for the performance-monitoring or storage register period defined by *tmper*. The format is MM-DD. This parameter is not supported presently; leave it blank.

Type: enum
Range: {1-12}-{1-31}
Default value: current date

montm Identifies the monitored time. The value indicates the beginning time of day for the performance-monitoring or storage register period defined by *tmper*. The format is HH-MM. This parameter is not supported presently; leave it blank.

Type: enum
Range: {0-23}-{0-59}
Default value: current time

Input Examples:

```
INIT-REG-RC;
RTRV-PM-RC;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 RTRV
   "COM:NOT_APPLICABLE,0"
   "COM:MEMORY_ALLOC,0"
   "COM:INVALID_TID_INFO,0"
   "COM:INFO_MISSING,0"
   "COM:DB_ACCESS,0"
   "COM:SRVC_TRAN_FAILURE,0"
   "COM:INVALID_PARAM,0"
   "COM:INTERNAL,0"
   "COM:UNEXPECTED_MSG,0"
   "COM:SCP_OPR_FAILED,0"

   lucent 2005-05-15 14:37:49
M  0 RTRV
   "COM:PROTERR,0"
   "COM:RESUNAVAIL,0"
   "COM:CKTCONG,0"
   "COM:TMRRCVRY,0"
   "COM:USRBUSY,0"
   "COM:CALL_BLOCK,0"
   "COM:BCAPNOTIMPL,0"
   "COM:SUBIF_NOT_PROV,0"
   "COM:NOCKTAVAIL,0"
   "COM:LM_INITIATED_REL,0"

   lucent 2005-05-15 14:37:49
M  0 RTRV
   "COM:INV1PREFIX,0"
   "COM:AUTH_FAILURE,0"
```

```
   "COM:SCR_FRAUD_REL,0"
   "COM:NO_DSP_RSC,0"
   "COM:CODEC_NEG_FAIL,0"
   "COM:UNALLOC_NUMBER,0"
   "COM:NOROUTTRANSNET,0"
   "COM:VACANT_CODE,0"
   "COM:INV0PREFIX,0"
   "COM:INV1PREFIX,0"

   lucent 2005-05-15 14:37:49
M  0 RTRV
   "COM:HAVE1PREFIX,0"
   "COM:INVALID_CARRIER,0"
   "COM:NMBCHNG,0"
   "COM:DSTOUTORD,0"
   "COM:INVNMBFORM,0"
   "COM:CGPTRY_DIS_OOS_CHG,0"
   "COM:CALLEDADDR_INCOMPLETE,0"
   "COM:EQUIPMENT_TROUBLE,0"
   "COM:RT_FAILED,0"
   "COM:INTFC_UNAVAIL,0"

   lucent 2005-05-15 14:37:49
M  0 RTRV
   "COM:INTFC_UNAVAIL_COST,0"
   "COM:INTFC_UNAVAIL_BCAP,0"
   "COM:NOROUTDST,0"
   "COM:EXCG_RT_ERROR,0"
   "COM:REQ_CHAN_NAVAIL,0"
   "COM:WFS_USR_UNAVAIL,0"
   "COM:WFS_UNALLOCNMB,0"
   "COM:INVALID_MSG,0"
   "COM:MSG_UNSUPPORTED,0"
   "COM:NOPARAMDISCMSG,0"

   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:NORMAL_CLRG,0"
   "COM:LNP_MISROUTE,0"
   "COM:CASTG_RELIND,0"
;
```

Related Commands: none

RTRV-STATS-CC

Command:

RTRV-STATS-CC: Retrieve Statistics CC

Description:

RTRV-STATS-CC lets the user retrieve statistics for call control. Use RTRV-STATS-CC to retrieve the total number of calls, answered calls, unanswered calls, calls that failed due to route or resource unavailability, LNP calls released due to temporary failure, and incoming and outgoing SS7, ISDN, CAS, GR303, SIP, BICC, and MGCP calls.

Category: Signaling **Security:** View

Input Format:

```
RTRV-STATS-CC:[TID]:[<ccId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "TOTCLS=<totCalls>,ANSCLS=<ansrCalls>,
     UNANSCLS=<unansrCalls>,STNDGCLS=<stndgCalls>,
     CFRTEUN=<callsFailedRteUnavail>,
     CFRSRUN=<callsFailedRsrUnavail>,
     INSS7CLS=<inSS7Calls>,OUTSS7CLS=<outSS7Calls>,
     INISDNCLS=<inISDNCalls>,
     OUTISDNCLS=<outISDNCalls>,
     LNPCALLSREL41=<lnpCallsRel41>,
     INCASCLS=<inCASCalls>,OUTCASCLS=<outCASCalls>,
     INGR3CLS=<inGR3Calls>,OUTGR3CLS=<outGR3Calls>,
     INSIPCLS=<inSIPCalls>,OUTSIPCLS=<outSIPCalls>,
     INBICCCLS=<inBICCCalls>,
     OUTBICCCLS=<outBICCCalls>,
     INMGCPCLS=<inMGCPCalls>,
     OUTMGCPCLS=<outMGCPCalls>"
      ;
```

Parameters:

ccId Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

totCalls Identifies the total number of calls processed by the switch since initialization.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

ansrCalls Identifies the total number of answered calls processed by the switch since initialization.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

unansrCalls Identifies the total number of unanswered calls processed by the switch since initialization.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

stndgCalls Identifies the total number of established calls currently being processed by the switch.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

callsFailedRteUnavail Identifies the total number of calls processed by the switch since initialization that failed due to route unavailability.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

callsFailedRsrUnavail Identifies the total number of calls processed by the switch since initialization that failed due to resource unavailability.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

inSS7Calls Identifies the total number of incoming SS7 calls processed by the switch since initialization.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

outSS7Calls Identifies the total number of outgoing SS7 calls processed by the switch since initialization.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

inISDNCalls Identifies the total number of incoming ISDN calls processed by the switch since initialization.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

outISDNCalls Identifies the total number of outgoing ISDN calls processed by the switch since initialization.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

lnpCallsRel41 Identifies the total number of LNP calls released with cause code 41 (temporary failure) since initialization.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

inCASCalls Identifies the total number of incoming CAS calls processed by the switch since initialization.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

outCASCalls Identifies the total number of outgoing CAS calls processed by the switch since initialization.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

inGR3Calls Identifies the total number of incoming GR303 calls processed by the switch since initialization.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

outGR3Calls Identifies the total number of outgoing GR303 calls processed by the switch since initialization.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

inSIPCalls Identifies the total number of incoming SIP calls processed by the switch since initialization.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

outSIPCalls Identifies the total number of outgoing SIP calls processed by the switch since initialization.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

inBICCCalls Identifies the total number of incoming BICC calls processed by the switch since initialization.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

outBICCCalls Identifies the total number of outgoing BICC calls processed by the switch since initialization.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

inMGCPCalls Identifies the total number of incoming MGCP calls processed by the switch since initialization.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

outMGCPCalls Identifies the total number of outgoing MGCP calls processed by the switch since initialization.

Type: integer
Range: {0 – 4,294,967,295}
Default value: none

Input Example:

```
RTRV-STATS-CC;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "TOTCLS=0,ANSCLS=0,UNANSCLS=0,CFRTEUN=0,STNDGCLS=0,
      CFRSRUN=0,INSS7CLS=0,OUTSS7CLS=0,INISDNCLS=0,
      OUTISDNCLS=0,LNPCALLSREL41=10,INCASCLS=0,
      OUTCASCLS=0,INGR3CLS=0,OUTGR3CLS=0,INSIPCLS=0,
      OUTSIPCLS=0,INBICCCLS=0,OUTBICCCLS=0,
      INMGCPCLS=0,OUTMGCPCLS=0"
;
```

Related Commands:

```
INIT-REG-CC              RTRV-PM-CC
```

RTRV-STATUS-CAPT

Command:

RTRV-STATUS-CAPT: Retrieve Status Capture

Description:

RTRV-STATUS-CAPT lets the user retrieve the status of (a) protocol capture session(s).

Category: Diagnosis **Security:** NSA

Input Format:

```
RTRV-STATUS-CAPT:[TID]:<captAid>:[CTAG]::[<pcsn>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<captAid>:<pcsn>:<sigCaptStatus>"
;
```

Parameters:

captAid Identifies the access line; that is, the BICC trunk, CAS channel, ISDN interface, or SS7 link set for which to retrieve capture session status. Not specifying a particular BICC trunk, ISDN interface, SS7 link set, or CAS channel returns the status of the capture sessions for all BICC trunks, ISDN interfaces, SS7 link sets, or CAS channels (on a specific port) configured in the switch. Not specifying a particular CAS IOM and port returns the status of all CAS capture sessions configured in the switch. A range of CAS channels on a specific port is shown by the beginning and ending channel numbers separated by two ampersands and a hyphen ("&&-").

Type: CaptAid
Range: BICC = all BICC trunks
CAS-IOM-{1-17}-PORT-{1-28}[-T0-{1-24}]
CAS-IOM-{1-17}-T3-{1-8}-PORT-{1-28}[-T0-{1-24}]
ISDNIF[-{1-32767}] = ISDN interface
LSET[-{1-20}] = SS7 link set
Default value: none

pcsn Identifies the protocol capture session number. The value of *pcsn* is always "1" as the switch does not currently support multiple sessions per interface.

Type: integer
Range: {1}
Default value: 1

sigCaptStatus Identifies (in RTRV output) whether a signaling trace capture session for an access line currently exists.

Type: enum
Range: SIGCAPTOFF = no current signaling trace capture session
SIGCAPTON = signaling trace capture session started
Default value: none

Input Example:

```
RTRV-STATUS-CAPT::CAS;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-16-T3-1-PORT-2-T0-1:1:SIGCAPTON"
   "IOM-16-T3-1-PORT-2-T0-2:1:SIGCAPTON"
   "IOM-16-T3-1-PORT-3-T0-1:1:SIGCAPTON"
   "IOM-16-T3-1-PORT-3-T0-2:1:SIGCAPTON"
;
```

Related Commands:

```
STA-CAPT                    STP-CAPT
```

STA/STP-CAPT

Commands:

STA-CAPT: Start Capture

STP-CAPT: Stop Capture

Descriptions:

STA-CAPT lets the user selectively capture and store protocol activity concerning an access line. STA-CAPT is dependent on ENT-CAPT-SYS; that is, if the captured data will be sent to a server, that server first must be configured with ENT-CAPT-SYS. Do not configure the server if you want the captured data to be logged locally on the switch.

STP-CAPT lets the user stop the selective capture and store of a protocol activity concerning an access line.

Category: Diagnosis **Security:** NSA for both commands

Input Formats:

```
STA-CAPT:[TID]:<captAid>:[CTAG]::[<chn>],<lyr>,[<md>],
   [<bc>],[<sapi>],[<tei>],[<lcn>],[<dn>]:[<prcaptm>],
   [<trig>],[<mot>],[<stp>];
STP-CAPT:[TID]:<captAid>:[CTAG]::<pcsn>;
```

Output Format: none

Parameters:

captAid Identifies the AID as an access line; that is, the BICC trunk, CAS channel, ISDN interface, or SS7 link set on which to start a capture session. Not specifying a particular CAS channel starts or stops the capture sessions on all CAS channels (on a specific port) configured in the switch. A range of CAS channels on a specific port is shown by the beginning and ending channel numbers separated by two ampersands and a hyphen ("&&-").

Type: CaptAid
Range: BICC = all BICC trunks
CAS-IOM-{1-17}-PORT-{1-28}[-T0-{1-24}]
CAS-IOM-{1-17}-T3-{1-8}-PORT-{1-28}[-T0-{1-24}]
ISDNIF-{1-32767} = ISDN interface
LSET-{1-20} = SS7 link set
Default value: none

chn Identifies the particular ISDN channel of an access line (D or B) for which the protocol activity will be monitored for the duration of the session. This parameter is not currently used by the switch and should be left blank.

Type: enum
Range: null
Default value: null

lyr Identifies the protocol layer for which activity is captured.

Type: enum
Range: L3 = MTP layer 3 for SS7, Q.931 for ISDN
Default value: none

md Identifies the entity for which protocol activity will be monitored for the duration of the protocol capture session. This parameter is used when differentiating the capture entity as either packet data or signaling data; currently only signaling is supported. A null value is equivalent to "SIG" and is the only value presently selectable.

Type: enum
Range: SIG = protocol capture of Signaling Data on the D channel
Default value: null

bc Identifies the bearer capability, such as speech or audio. This parameter is not currently used by the switch and should be left blank.

Type: integer
Range: null
Default value: null

sapi Identifies the service access point in MTP layer 2. This parameter is not currently used by the switch and should be left blank.

Type: enum
Range: null
Default value: null

tei Identifies the terminal endpoint ID in MTP layer 2. This parameter is not currently used by the switch and should be left blank.

Type: enum
Range: null
Default value: null

lcn Identifies the logical channel number. This parameter is not currently used by the switch and should be left blank.

Type: integer
Range: null
Default value: null

dn Identifies the directory number. This parameter is not currently used by the switch and should be left blank.

Type: string
Range: null
Default value: null

prcaptm Identifies the date and time to start the protocol capture session. A null value is equivalent to the current date and time, and is the only value currently supported.

Type: string
Range: YY-MM-DD-HH-MM-SS
Default value: null

trig Identifies the triggering event that starts the protocol capture session. This parameter is not currently used by the switch and should be left blank.

Type: enum
Range: null
Default value: null

mot Identifies the maximum time, in hours, that the protocol capture session will look for the first occurrence of the defined trigger event before automatically terminating the protocol capture session. This parameter is not currently used by the switch and should be left blank.

Type: integer
Range: {1-72}
Default value: 4

stp Identifies the condition after the trigger is observed that signals stopping the protocol capture session. This parameter is not currently used by the switch and should be left blank.

Type: enum
Range: {0-40}-{0-40}
Default value: null

pcsn Identifies (in RTRV) the protocol capture session number. The value of *pcsn* is always "1" as the switch does not currently support multiple sessions per interface.

Type: integer
Range: {1}
Default value: 1

Input Examples:

```
STA-CAPT::ISDNIF-96:::,L3;
STP-CAPT::ISDNIF-96:::1;
```

Related Commands:

ENT-CAPT-SYS RTRV-STATUS-CAPT

STA/STP-DGN-IPPING

Commands:

STA-DGN-IPPING: Start Diagnostic IP Ping

STA-DGN-IPPING: Stop Diagnostic IP Ping

Descriptions:

STA-DGN-IPPING lets the user execute an Internet Control Message Protocol (ICMP) echo request (ping) command to determine network connectivity for either an SP or a network IOM.

STP-DGN-IPPING lets the user stop an in-process Internet Control Message Protocol (ICMP) echo request (ping) command.

Category: Diagnosis **Security:** NSA for both commands

Input Formats:

```
STA-DGN-IPPING:[TID]:<aid>:CTAG::[COUNT=<count>],
   [SIZE=<size>],[WAITTIME=<waittime>];
STP-DGN-IPPING:[TID]:<aid>:CTAG;
```

Output Format: none

Parameters:

aid Identifies the AID as either a network IOM or an SP, both with an associated address.

Type: string
Range: IOM-{8, 10}-ADDRESS, where
ADDRESS is either an IP address in dot format ({0-255}.{0-255}.{0-255}.{0-255}) or a fully-qualified domain (host) name
SP-{A, B}-ADDRESS, where
ADDRESS is either an IP address in dot format ({0-255}.{0-255}.{0-255}.{0-255}) or a fully-qualified domain (host) name
Default value: none

count Identifies the number of times to issue an echo request.

Type: integer
Range: {1-20}
Default value: 1

size Identifies the number of bytes in the echo request.

Type: integer
Range: {56-8192}
Default value: 56

waittime Identifies the interval, in seconds, between each echo request.

Type: integer
Range: {1-20}
Default value: 1

Input Examples:

```
STA-DGN-IPPING::IOM-10-192.2.24.234;
STP-DGN-IPPING::IOM-10-192.2.24.234;
```

Related Commands: none

STA/STP-DGN-IPTRACEROUTE

Commands:

STA-DGN-IPTRACEROUTE: Start Diagnostic IP Traceroute

STA-DGN-IPTRACEROUTE: Stop Diagnostic IP Traceroute

Descriptions:

STA-DGN-IPTRACEROUTE lets the user execute an Internet Control Message Protocol (ICMP) traceroute command to determine the number of hops taken in achieving network connectivity for either an SP or a network IOM.

STP-DGN-IPTRACEROUTE lets the user stop an in-process Internet Control Message Protocol (ICMP) traceroute command.

Category: Diagnosis **Security:** NSA for both commands

Input Formats:

```
STA-DGN-IPTRACEROUTE:[TID]:<aid>:CTAG::[SIZE=<size>],
   [MAXTTL=<maxttl>],[WAITTIME=<waittime>],
   [TOS=<tos>],[PORT=<port>];
```

```
STP-DGN-IPTRACEROUTE:[TID]:<aid>:CTAG;
```

Output Format: none

Parameters:

aid Identifies the AID as either a network IOM or an SP, both with an associated address.

Type: string
Range: IOM-{8, 10}-ADDRESS, where
ADDRESS is either an IP address in dot format ({0-255}.{0-255}.{0-255}.{0-255}) or a fully-qualified domain (host) name
SP-{A, B}-ADDRESS, where
ADDRESS is either an IP address in dot format ({0-255}.{0-255}.{0-255}.{0-255}) or a fully-qualified domain (host) name
Default value: none

size Identifies the number of bytes in the traceroute packet.

Type: integer
Range: {40-32767}
Default value: 40

maxttl Identifies the maximum time-to-live (number of hops) in the outgoing traceroute packet.

Type: integer
Range: {1-255}
Default value: 30

waittime Identifies the interval, in seconds, allowed between each hop before the command times out.

Type: integer
Range: {5-20}
Default value: 5

tos Identifies the type of service designated in the IP header for the traceroute packet.

Type: integer
Range: {0-255}
Default value: 0

port Identifies the UDP port for the traceroute packet.

Type: string
Range: {33434-33689}
Default value: NONE

Input Examples:

```
STA-DGN-IPTRACEROUTE::IOM-10-192.2.24.234;
STP-DGN-IPTRACEROUTE::IOM-10-192.2.24.234;
```

Related Commands: none

TRC-CALL-EQPT/LNK/TRK

Commands:

TRC-CALL-EQPT: Trace Call Equipment

TRC-CALL-LNK: Trace Call Link

TRC-CALL-TRK: Trace Call Trunk

Descriptions:

TRC-CALL-EQPT lets the user identify the resources used by both sides of an in-progress call on a channel on a module in the switch. The switch returns information for just one side when there is no standing call on the channel. Retrieved properties can include the dialing and dialed numbers; protocol used; incoming and outgoing trunk interfaces (channel), trunk group and trunk numbers; destination point code for SS7 or BICC; ISDN link and B channel for the interface; GR303 interface group; GR303 call reference value or BICC call instance code; SIP feature server IP address; local and remote IP addresses and communications ports for BICC, MGCP, or SIP; and the MGCP gateway and endpoint.

TRC-CALL-LNK lets the user identify the resources used by both sides of an in-progress call on an ISDN link on a module in the switch. The switch returns information for just one side when there is no standing call on the link. Retrieved properties can include the dialing and dialed numbers; protocol used; incoming and outgoing trunk interfaces (channel), trunk group and trunk numbers; destination point code for SS7 or BICC; ISDN link and B channel for the interface; GR303 interface group; GR303 call reference value or BICC call instance code; SIP feature server IP address; local and remote IP addresses and communications ports for BICC, MGCP, or SIP; and the MGCP gateway and endpoint.

TRC-CALL-TRK lets the user identify the resources used by an in-progress call on an SS7 trunk on a module in the switch. The switch returns information for just one side when there is no standing call on the trunk. Retrieved properties can include the dialing and dialed numbers; protocol used; incoming and outgoing trunk interfaces (channel), trunk group and trunk numbers; destination point code for SS7 or BICC; ISDN link and B channel for the interface; GR303 interface group; GR303 call reference value or BICC call instance code; SIP feature server IP address; local and remote IP addresses and communications ports for BICC, MGCP, or SIP; and the MGCP gateway and endpoint.

Category: Diagnosis **Security:** View for all commands

Input Formats:

```
TRC-CALL-EQPT:[TID]:<iomportds0>:[CTAG];
TRC-CALL-LNK:[TID]:<linkid>:[CTAG]::<channum>;
TRC-CALL-TRK:[TID]:<trkAid>:[CTAG];
```

Output Format (all commands):

```
   SID DATE TIME
M  CTAG COMPLD
   [DN=<dn>],PROTOHDLR=<protoHdlr>,[OE=<oe>],
      [TGN=<tgn>],[TRKMBR=<trkMbr>],[BCHL=<bchl>],
      [IF=<if>],[LNG=<lng>],[CRV=<crv>],[FSIP=<fsip>],
      [LOCIP=<locip>],[LOCPORT=<locport>],
      [REMIP=<remip>],[REMPORT=<remport>],
      [GWID=<gwid>],[LNID=<lnid>]"
   [DN=<dn>],PROTOHDLR=<protoHdlr>,[OE=<oe>],
      [TGN=<tgn>],[TRKMBR=<trkMbr>],[BCHL=<bchl>],
      [IF=<if>],[LNG=<lng>],[CRV=<crv>],[FSIP=<fsip>],
      [LOCIP=<locip>],[LOCPORT=<locport>],
      [REMIP=<remip>],[REMPORT=<remport>],
      [GWID=<gwid>],[LNID=<lnid>]"
   ;
```

Parameters:

iomportds0 Identifies (in TRC-CALL-EQPT) the AID as the I/O module, the DS1 port on the IOM, and the DS0 channel on the port for which to log all incoming and outgoing calls.

Type: T0
Range: IOM-{1-17}-PORT-{1-28}-T0-{1-24} = a channel on a T1 port on a DS1 I/O module
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}-T0-{1-24} = a channel on a T1 port on an STS1 I/O module
IOM-{1-17}-T3-{1-8}-PORT-{1-28}-T0-{1-24} = a channel on a T1 port on a DS3 I/O module
Default value: none

linkid Identifies (in TRC-CALL-LNK) the AID as an ISDN link on an interface. The first number in the range identifies the interface; the second identifies the link.

Type: LinkId
Range: {1-32767}-{1-32767}
Default value: none

trkAid Identifies (in TRC-CALL-TRK) the AID as a unique trunk associated with a trunk group number. The first number in the range identifies the trunk group number and the second number identifies the trunk.

Type: TrkAid
Range: {1-9999}-{1-32767}
Default value: none

channum Identifies (in TRC-CALL-LNK input) the B channel for the ISDN link.

Type: string
Range: {1-24}
Default value: none

dn Identifies the dialed or dialing number on the channel.

Type: string
Range: up to 20 digits
Default value: none

protoHdlr Identifies the protocol handler for the dialed or dialing number.

Type: enum
Range: BICC = Bearer Independent Call Control
CASLN = Channel-Associated Signaling by interface
CASTK = Channel-Associated Signaling by trunk
GR303 = GR303 protocol
ISUP = ISDN User Part (SS7)
MGCP = Media Gateway Controller Protocol
MS = Media Server
NFAS = Non-Facility-Associated Signaling
PRI = Primary Rate Interface
SIP = Session Initiation Protocol
Default value: none

oe Identifies (when the value of *protoHdlr* is “CASLN”, “CASTK”, “GR303”, “NFAS”, “PRI”, or “ISUP”) the trunk interface for the dialed or dialing number; i.e., the DS0 channel that is being used for the in-progress call.

Type: enum
Range: IOM-{1-17}-PORT-{1-28}-T0-{1-24} = a channel on a T1 port on a DS1 I/O module
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}-T0-{1-24} = a channel on a T1 port on an STS1 I/O module
IOM-{1-17}-T3-{1-8}-PORT-{1-28}-T0-{1-24} = a channel on a T1 port on a DS3 I/O module
Default value: none

tgn Identifies a unique BICC, CAS, SIP, or ISUP trunk group number, or interface.

Type: integer
Range: {1-9999}
Default value: none

trkMbr Identifies the trunk group member – that is, a unique trunk (cic) associated with the trunk group number – for CAS, ISUP, SIP, and external BICC trunks.

Type: integer
Range: {1-16384} for ISUP
{1-4294967295} for CAS, SIP, and BICC
Default value: none

bchl Identifies, when the value of *protoHdlr* is “NFAS” or “PRI”, the B channel on the interface for ISDN calls. The first number in the range identifies the interface; the second identifies the link.

Type: integer
Range: {1-32767}-{1-32}
Default value: none

if Identifies the interface when the value of *protoHdlr* is “CASLN”, “GR303”, “MGCP”, “NFAS”, or “PRI”.

Type: integer
Range: {1-32767}
Default value: none

lng Identifies the line group when the value of *protoHdlr* is “GR303” or “MGCP”.

Type: integer
Range: {1-32767}
Default value: none

crv Identifies the call reference value when the value of *protoHdlr* is “GR303”, or the call instance code when the value of *protoHdlr* is “BICC”.

Type: integer
Range: {1-16383} for BICC
{1-2048} for GR303
Default value: none

fsip Identifies the feature server IP address when the value of *protoHdlr* is “SIP”.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

locip Identifies the IP address for the switch when the value of *protoHdlr* is “BICC”, “MGCP”, or “SIP”.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

locport Identifies the communications port for the switch when the value of *protoHdlr* is “BICC”, “MGCP”, or “SIP”.

Type: integer
Range: {1025-65535}
Default value: none

remip Identifies the IP address for the remote switch when the value of *protoHdlr* is “BICC”, “MGCP”, or “SIP”.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

remport Identifies the communications port for the remote switch when the value of *protoHdlr* is “BICC”, “MGCP”, or “SIP”.

Type: integer
Range: {1025-65535}
Default value: none

gwid Identifies the gateway when the value of *protoHdlr* is “MGCP”.

Type: integer
Range: {1-65536}
Default value: none

lnid Identifies the line (i.e., endpoint) when the value of *protoHdlr* is “MGCP”.

Type: integer
Range: {1-65536}
Default value: none

Input Examples:

```
TRC-CALL-EQPT::IOM-1-T3-1-PORT-1-T0-1;

TRC-CALL-LNK::1-2:::23;

TRC-CALL-TRK::4-504;
```

Output Example (all commands):

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "DN=5088048202,PROTOHDLR=ISUP,
      OE=IOM-1-T3-1-PORT-1-T0-1,TGN=4,TRKMBR=504"
   "DN=5084800909,PROTOHDLR=NFAS,
      OE=IOM-1-T3-1-PORT-1-T0-1,BCHL=1-23"
;
```

Related Commands: none

NOTES

DLT/ENT/RTRV-BICC-TRK

Commands:

DLT-BICC-TRK: Delete BICC trunk

ENT-BICC-TRK: Enter BICC trunk

RTRV-BICC-TRK: Retrieve BICC trunk

Descriptions:

DLT-BICC-TRK lets the user delete a Bearer Independent Call Control trunk (a BICC CIC; i.e., a Call Instance Code).

ENT-BICC-TRK lets the user establish a Bearer Independent Call Control trunk (a BICC CIC; i.e., a Call Instance Code) in a trunk group. ENT-BICC-TRK will not work correctly unless ENT-TRKGRP has already been issued.

RTRV-BICC-TRK lets the user retrieve parameters associated with a Bearer Independent Call Control trunk (a BICC CIC; i.e., a Call Instance Code).

Category: Signaling **Security:** SA for DLT and ENT, View for RTRV

Input Formats:

```
DLT-BICC-TRK:[TID]:<biccTrkAid>:[CTAG];
ENT-BICC-TRK:[TID]:<biccTrkAid>:[CTAG];
RTRV-BICC-TRK:[TID]:<biccTrkAid>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<biccTrkAid>:<pst>"
;
```

Parameters:

biccTrkAid Identifies the AID as a unique trunk (or range of trunks) associated with a trunk group number. The first number in the range identifies the trunk group number and the second number identifies the trunk(s). A range of trunks is shown by the beginning and ending numbers separated by two ampersands and a hyphen ("&&-").

Type: BiccTrkAid
Range: {1-9999}-{0-16382}
Default value: none

pst Identifies the primary and secondary states for the BICC trunk.

Type: string
Range: alphanumeric characters
Default value: none

Input Examples:

```
DLT-BICC-TRK::2-25&&-99;
ENT-BICC-TRK::2-25&&-99;
RTRV-BICC-TRK::2-33;
```

Output Example:

```
   lucent 2004-05-15 14:37:49
M  0 COMPLD
   "2-33:IS-ACT&IDLE"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-CAS-TRK

Commands:

DLT-CAS-TRK: Delete CAS trunk

ED-CAS-TRK: Edit CAS trunk

ENT-CAS-TRK: Enter CAS trunk

RTRV-CAS-TRK: Retrieve CAS trunk

Descriptions:

DLT-CAS-TRK lets the user delete a CAS (Channel-Associated Signaling) trunk.

ED-CAS-TRK lets the user change the name and state associated with a CAS (Channel-Associated Signaling) trunk.

ENT-CAS-TRK lets the user establish a CAS (Channel-Associated Signaling) trunk. ENT-CAS-TRK will not work correctly unless the following commands have already been issued in the listed order: ENT-EQPT, ENT-SS7SYS, ENT-T3/STS1 (if needed), and ENT-T1.

RTRV-CAS-TRK lets the user retrieve the trunk group, trunk name, and states for a CAS (Channel-Associated Signaling) trunk.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-CAS-TRK:[TID]:<casTrkAid>:[CTAG];

ED-CAS-TRK:[TID]:<casTrkAid>:[CTAG]::[NAME=<name>]:
   [<pst>];

ENT-CAS-TRK:[TID]:<casTrkAid>:[CTAG]::<tgn>:
   [NAME=<name>]:[<pst>];

RTRV-CAS-TRK:[TID]:[<casTrkAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<casTrkAid>:TGN=<tgn>:NAME=<name>:<pst>,<sst>"
;
```

Parameters:

casTrkAid Identifies the AID as a CAS trunk on a DS0 channel. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for all CAS trunks configured in the system will be returned. A null value for the second, third, or fourth parts of the AID (in RTRV) is equivalent to “ALL”; that is, by leaving a field blank, parameters will be returned for all channels on a port or all ports on an IOM.

Type: T0
Range: IOM-{1-17}[-STS1-{1-8}[-PORT-{1-28}[-T0-{1-24}]]] = a channel on a T1 port on an STS1 I/O module
IOM-{1-17}[-T3-{1-8}[-PORT-{1-28}[-T0-{1-24}]]] = a channel on a T1 port on a DS3 I/O module

Default value: none

tgn Identifies a trunk group to associate with the DS0 channel.

Type: enum
Range: {1-9999}
Default value: none

name Identifies the name of the CAS trunk.

Type: string
Range: up to eight ASCII characters
Default value: null

pst Identifies the desired primary state of the CAS trunk.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: IS

sst Identifies (in RTRV output) the secondary state of the CAS trunk.

Type: enum
Range: ACT = Active
BLKD = Blocked
BUSY = Busy
FAF = Facilities Failure
IDLE = Idle
INBUSY=Incoming Busy
INHIP = Inhibit in Progress
OUTBUSY=Outgoing Busy
SGEO = Supporting Entity Outage
TRANS=Transient
UAS = Unassigned
Default value: none

Input Examples:

```
DLT-CAS-TRK::IOM-1-T3-1-PORT-2-T0-24;

ED-CAS-TRK::IOM-1-T3-1-PORT-2-T0-24:::NAME=CASTRK1:IS;

ENT-CAS-TRK::IOM-1-T3-1-PORT-2-T0-24:::1:NAME=CASTRK1:
   IS;

RTRV-CAS-TRK::IOM-1-T3-1-PORT-2-T0-24;
```

Output Example:

```
   lucent 2004-05-15 14:37:49
M  0 COMPLD
   "IOM-1-T3-1-PORT-2-T0-24:TGN=1:NAME=CASTRK1:IS,ACT"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-PRFL-CIC

Commands:

DLT-PRFL-CIC: Delete Profile CIC

ED-PRFL-CIC: Edit Profile CIC

ENT-PRFL-CIC: Enter Profile CIC

RTRV-PRFL-CIC: Retrieve Profile CIC

Descriptions:

DLT-PRFL-CIC lets the user delete a circuit identification code profile.

ED-PRFL-CIC lets the user edit a profile for a circuit identification code. Use this command to change the values of the ISUP timers for the CIC.

ENT-PRFL-CIC lets the user establish a profile for a circuit identification code. ENT-PRFL-CIC is dependent on ENT-SS7SYS; that is, ENT-PRFL-CIC will not work unless ENT-SS7SYS has already been issued.

RTRV-PRFL-CIC lets the user retrieve a profile for a circuit identification code.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-PRFL-CIC:[TID]:<cicPrflId>:[CTAG];
```

```
ED-PRFL-CIC:[TID]:<cicPrflId>:[CTAG]::
   [ISUPT12=<isupT12>],[ISUPT13=<isupT13>],
   [ISUPT14=<isupT14>],[ISUPT15=<isupT15>],
   [ISUPT16=<isupT16>],[ISUPT17=<isupT17>],
   [ISUPTCVT=<isupTCVT>],[ISUPT24=<isupT24>],
   [ISUPT25=<isupT25>],[ISUPT26=<isupT26>],
   [ISUPTCOTD=<isupTCOTD>],[ISUPTTBLOM=<isupTTBLOM>],
   [GUARDTMR=<guardTmr>],[OLIFLAG=<oliFlag>],
   [HOPCOUNTER=<hopCntr>];
```

```
ENT-PRFL-CIC:[TID]:<cicPrflId>:[CTAG]::
   [ISUPT12=<isupT12>],[ISUPT13=<isupT13>],
   [ISUPT14=<isupT14>],[ISUPT15=<isupT15>],
   [ISUPT16=<isupT16>],[ISUPT17=<isupT17>],
   [ISUPTCVT=<isupTCVT>],[ISUPT24=<isupT24>],
   [ISUPT25=<isupT25>],[ISUPT26=<isupT26>],
   [ISUPTCOTD=<isupTCOTD>],[ISUPTTBLOM=<isupTTBLOM>],
   [GUARDTMR=<guardTmr>],[OLIFLAG=<oliFlag>],
   [HOPCOUNTER=<hopCntr>];

RTRV-PRFL-CIC:[TID]:[<cicPrflId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<cicPrflId>:ISUPT12=<isupT12>,ISUPT13=<isupT13>,
      ISUPT14=<isupT14>,ISUPT15=<isupT15>,
      ISUPT16=<isupT16>,ISUPT17=<isupT17>,
      ISUPTCVT=<isupTCVT>,ISUPT24=<isupT24>,
      ISUPT25=<isupT25>,ISUPT26=<isupT26>,
      ISUPTCOTD=<isupTCOTD>,ISUPTTBLOM=<isupTTBLOM>,
      GUARDTMR=<gaurdTmr>,OLIFLAG=<oliFlag>,
      HOPCOUNTER=<hopCntr >"
;
```

Parameters:

cicPrflId Identifies the AID as a CIC profile. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all CIC profiles configured in the system will be returned.

Type: CicPrflId
Range: {1-128}
Default value: none

isupT12 Identifies the Timer T12 value (in seconds) for the ISUP layer. Timer T12 starts when a BLOCKING message is sent. It stops on receipt of a BLOCKING ACKNOWLEDGEMENT message.

Type: integer
Range: {0-15}
Default value: 7

isupT13 Identifies the Timer T13 value (in seconds) for the ISUP layer. Timer T13 starts when an INITIAL BLOCKING message is sent. It stops on receipt of a BLOCKING ACKNOWLEDGEMENT message.

Type: integer
Range: {0-100}
Default value: 60

isupT14 Identifies the Timer T14 value (in seconds) for the ISUP layer. Timer T14 starts when an UNBLOCKING message is sent. It stops on receipt of an UNBLOCKING ACKNOWLEDGEMENT message.

Type: integer
Range: {0-15}
Default value: 7

isupT15 Identifies the Timer T15 value (in seconds) for the ISUP layer. Timer T15 starts when an INITIAL UNBLOCKING message is sent. It stops on receipt of an UNBLOCKING ACKNOWLEDGEMENT message.

Type: integer
Range: {0-100}
Default value: 60

isupT16 Identifies the Timer T16 value (in seconds) for the ISUP layer. Timer T16 starts when a RESET CIRCUIT message is sent. It stops on receipt of a RELEASE COMPLETE message.

Type: integer
Range: {0-15}
Default value: 7

isupT17 Identifies the Timer T17 value (in seconds) for the ISUP layer. Timer T17 starts when an INITIAL RESET message is sent. It stops on receipt of a RELEASE COMPLETE message.

Type: integer
Range: {0-100}
Default value: 60

isupTCVT Identifies the ANSI circuit validation timer value (in seconds).

Type: integer
Range: {0-50}
Default value: 10

isupT24 Identifies the Timer T24 value (in seconds) for the ISUP layer. Timer T24 starts when a check tone is sent to the remote switch. This occurs (possibly after a short delay established by *isupTCOTD*) either when an IAM with a CONTINUITY CHECK message is sent to the remote switch, or after receiving a LOOPBACK ACKNOWLEDGEMENT (LPA) from the remote switch in response to a CONTINUITY CHECK REQUEST (CCR) message. T24 stops after detecting the 60-millisecond backward tone indicating continuity. If the timer expires without detecting the backward tone, a continuity message (COT) with failure is sent to the remote switch and Timer T25 (if an IAM was sent) or Timer T26 (if a CCR was sent) is started to repeat automatic attempts at detecting continuity.

Type: integer
Range: {0-2}
Default value: 1

isupT25 Identifies the Timer T25 value (in seconds) for the ISUP layer. Timer T25 starts after an initial continuity failure on sending an IAM (i.e., after expiry of T24), and, as with T24, stops when continuity is detected. If T25 expires without detecting continuity, it sends a CCR message.

Type: integer
Range: {0-10}
Default value: 5

isupT26 Identifies the Timer T26 value (in seconds) for the ISUP layer. Timer T26 starts either after a subsequent continuity failure if the continuity test resulted from an IAM, or after an initial continuity failure if the continuity test resulted from a CCR. T26 runs until expiry, then sends a CCR message to the remote switch.

Type: integer
Range: {0-180}
Default value: 120

isupTCOTD Identifies the check tone delay timer value (in milliseconds) for the ISUP layer. Timer TCOTD starts when an IAM with a CONTINUITY CHECK message is sent to the remote switch and runs until expiry, at which time the check tone is sent. A value of “0” indicates that the parameter is not applicable.

Type: integer
Range: {0, 50-500}
Default value: 0

isupTTBLOM Identifies the BLOCK (BLO) message timer value (in seconds) for the ISUP layer. Timer TTBLOM starts on receipt from the remote switch of either a BLO or a BLOCK ACKNOWLEDGEMENT (BLA) (after the switch sends a BLO). TTBLOM runs until expiry, then reports (REPT COND) that the circuit has been blocked for the specified period.

Type: integer
Range: {0-900}
Default value: 300

guardTmr Identifies the guard timer value T_a (in 100 millisecond increments). The switch sets the guard timer for a circuit on which it sends an RLC, and will not seize the circuit for subsequent calls until after guard timer expiry.

Type: integer
Range: {5-10}
Default value: 5

oliFlag Identifies whether the switch sends a REL message in response to a received IAM not containing OLI (Originating Line Information).

Type: BoolYN
Range: N = REL not sent when no OLI in IAM
Y = REL sent when no OLI in IAM
Default value: none

hopCntr Identifies the number of hops allowed (i.e., the number of switches traversed in the call route) before the call is released. A value of "0" indicates that the parameter is not applicable.

Type: enum
Range: {0, 10-20}
Default value: 15

Input Examples:

```
DLT-PRFL-CIC::1;
```

```
ED-PRFL-CIC::1:::ISUPT12=7,ISUPT13=1,ISUPT14=7,
   ISUPT15=1,ISUPT16=7,ISUPT17=1,ISUPTCVT=10,
   ISUPT24=1,ISUPT25=5,ISUPT26=120,ISUPTCOTD=0,
   ISUPTTBLOM=300,GUARDTMR=5,OLIFLAG=Y,HOPCOUNTER=15;
```

```
ENT-PRFL-CIC::1:::ISUPT12=7,ISUPT13=1,ISUPT14=7,
   ISUPT15=1,ISUPT16=7,ISUPT17=1,ISUPTCVT=10,
   ISUPT24=1,ISUPT25=5,ISUPT26=120,ISUPTCOTD=0,
   ISUPTTBLOM=300,GUARDTMR=5,OLIFLAG=Y,HOPCOUNTER=15;
```

```
RTRV-PRFL-CIC::1;
```

Output Example:

```
   lucent 2004-05-15 14:37:49
M  0 COMPLD
   "1:ISUPT12=7,ISUPT13=1,ISUPT14=7,ISUPT15=1,
      ISUPT16=7,ISUPT17=1,ISUPTCVT=10,ISUPT24=1,
      ISUPT25=5,ISUPT26=120,ISUPTCOTD=0,
      ISUPTTBLOM=300,GUARDTMR=5,OLIFLAG=Y,
      HOPCOUNTER=15"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-PRFL-SDP

Commands:

DLT-PRFL-SDP: Delete Profile SDP

ED-PRFL-SDP: Edit Profile SDP

ENT-PRFL-SDP: Enter Profile SDP

RTRV-PRFL-SDP: Retrieve Profile SDP

Descriptions:

DLT-PRFL-SDP lets the user delete an SDP (Session Description Protocol) profile.

ED-PRFL-SDP lets the user edit an SDP (Session Description Protocol) profile applicable to a BICC (Bearer-Independent Call Control) or SIP (Session Initiation Protocol) trunk. An SDP profile must have at least one codec specified. Specified codecs must be contiguous and must start with *codec1*.

ENT-PRFL-SDP lets the user establish an SDP (Session Description Protocol) profile applicable to a BICC (Bearer-Independent Call Control) or SIP (Session Initiation Protocol) trunk. An SDP profile must have at least one codec specified. Specified codecs must be contiguous and must start with *codec1*.

RTRV-PRFL-SDP lets the user retrieve the attributes of an SDP (Session Description Protocol) profile applicable to a BICC (Bearer-Independent Call Control) or SIP (Session Initiation Protocol) trunk.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-PRFL-SDP:[TID]:<sdpPrflId>:[CTAG];

ED-PRFL-SDP:[TID]:<sdpPrflId>:[CTAG]::
   [CODEC1=<codec1>],[CODEC2=<codec2>],
   [CODEC3=<codec3>],[CODEC4=<codec4>],
   [CODEC5=<codec5>],[PTYPE1=<ptype1>],
   [PTYPE2=<ptype2>],[PTYPE3=<ptype3>],
   [PTYPE4=<ptype4>],[PTYPE5=<ptype5>],
   [PTIME=<pTime>],[SILSUP=<silSup>],
   [TONERELAY=<toneRelay>],[RELAYPTYPE=<relayPtype>],
   [G726ENC=<g726enc>],[FAXPROTOCOL=<faxProtocol>],
   [G723BITRATE=<g723Bitrate>];
```

```
ENT-PRFL-SDP:[TID]:<sdpPrflId>:[CTAG]::
   CODEC1=<codec1>,[CODEC2=<codec2>],
   [CODEC3=<codec3>],[CODEC4=<codec4>],
   [CODEC5=<codec5>],[PTYPE1=<ptype1>],
   [PTYPE2=<ptype2>],[PTYPE3=<ptype3>],
   [PTYPE4=<ptype4>],[PTYPE5=<ptype5>],
   [PTIME=<pTime>],[SILSUP=<silSup>],
   [TONERELAY=<toneRelay>],[RELAYPTYPE=<relayPtype>],
   [G726ENC=<g726enc>],[FAXPROTOCOL=<faxProtocol>],
   [G723BITRATE=<g723Bitrate>];

RTRV-PRFL-SDP:[TID]:[<sdpPrflId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<sdpPrflId>:CODEC1=<codec1>,CODEC2=<codec2>,
      CODEC3=<codec3>,CODEC4=<codec4>,CODEC5=<codec5>,
      PTYPE1=<ptype1>,PTYPE2=<ptype2>,PTYPE3=<ptype3>,
      PTYPE4=<ptype4>,PTYPE5=<ptype5>,PTIME=<pTime>,
      SILSUP=<silSup>,TONERELAY=<toneRelay>,
      RELAYPTYPE=<relayPtype>,G726ENC=<g726enc>,
      FAXPROTOCOL=<faxProtocol>,
      G723BITRATE=<g723Bitrate>"
;
```

Parameters:

sdpPrflId Identifies the AID as an SDP profile. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for all SDP profiles configured in the system will be returned.

Type: integer
Range: {1-255}
Default value: none

codec1 Identifies the first in a list of audio codecs (coding/decoding algorithm types) in SDP format, that apply to the profile.

Type: enum
Range: CISCO-CLEAR-CHANNEL = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
CLEARMODE = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
G723 = G.723 encoding
G726 = G.726 encoding
G729 = G.729 encoding
NULL = no value specified
PCMA = G.711 for a-law PCM encoding (Europe)
PCMU = G.711 for mu-law PCM encoding (North America)
X-CCD = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
Default value: none

codec2 Identifies the second in a list of audio codecs (coding/decoding algorithm types) in SDP format, that apply to the profile.

Type: enum
Range: CISCO-CLEAR-CHANNEL = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
CLEARMODE = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
G723 = G.723 encoding
G726 = G.726 encoding
G729 = G.729 encoding
NULL = no value specified
PCMA = G.711 for a-law PCM encoding (Europe)
PCMU = G.711 for mu-law PCM encoding (North America)
X-CCD = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
Default value: NULL

codec3 Identifies the third in a list of audio codecs (coding/decoding algorithm types) in SDP format, that apply to the profile.

Type: enum
Range: CISCO-CLEAR-CHANNEL = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
CLEARMODE = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
G723 = G.723 encoding
G726 = G.726 encoding
G729 = G.729 encoding
NULL = no value specified
PCMA = G.711 for a-law PCM encoding (Europe)
PCMU = G.711 for mu-law PCM encoding (North America)
X-CCD = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
Default value: NULL

codec4 Identifies the fourth in a list of audio codecs (coding/decoding algorithm types) in SDP format, that apply to the profile.

Type: enum
Range: CISCO-CLEAR-CHANNEL = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
CLEARMODE = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
G723 = G.723 encoding
G726 = G.726 encoding
G729 = G.729 encoding
NULL = no value specified
PCMA = G.711 for a-law PCM encoding (Europe)
PCMU = G.711 for mu-law PCM encoding (North America)
X-CCD = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
Default value: NULL

codec5 Identifies the fifth in a list of audio codecs (coding/decoding algorithm types) in SDP format, that apply to the profile.

Type: enum
Range: CISCO-CLEAR-CHANNEL = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
CLEARMODE = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
G723 = G.723 encoding
G726 = G.726 encoding
G729 = G.729 encoding
NULL = no value specified
PCMA = G.711 for a-law PCM encoding (Europe)
PCMU = G.711 for mu-law PCM encoding (North America)
X-CCD = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
Default value: NULL

ptype1 Identifies the dynamic range of the RTP payload type for *codec1* when the *codec1* value is "CISCO-CLEAR-CHANNEL", "CLEARMODE", or "X-CCD". Payload types are not assigned for the other values of *codec1*. Each payload type is mapped to a single codec and cannot be co-assigned to another codec in the same SDP profile.

Type: integer
Range: {96-127}
Default value: NULL

ptype2 Identifies the dynamic range of the RTP payload type for *codec2* when the *codec2* value is "CISCO-CLEAR-CHANNEL", "CLEARMODE", or "X-CCD". Payload types are not assigned for the other values of *codec2*. Each payload type is mapped to a single codec and cannot be co-assigned to another codec in the same SDP profile.

Type: integer
Range: {96-127}
Default value: NULL

ptype3 Identifies the dynamic range of the RTP payload type for *codec3* when the *codec3* value is “CISCO-CLEAR-CHANNEL”, “CLEARMODE”, or “X-CCD”. Payload types are not assigned for the other values of *codec3*. Each payload type is mapped to a single codec and cannot be co-assigned to another codec in the same SDP profile.

Type: integer
Range: {96-127}
Default value: NULL

ptype4 Identifies the dynamic range of the RTP payload type for *codec4* when the *codec4* value is “CISCO-CLEAR-CHANNEL”, “CLEARMODE”, or “X-CCD”. Payload types are not assigned for the other values of *codec4*. Each payload type is mapped to a single codec and cannot be co-assigned to another codec in the same SDP profile.

Type: integer
Range: {96-127}
Default value: NULL

ptype5 Identifies the dynamic range of the RTP payload type for *codec5* when the *codec5* value is “CISCO-CLEAR-CHANNEL”, “CLEARMODE”, or “X-CCD”. Payload types are not assigned for the other values of *codec5*. Each payload type is mapped to a single codec and cannot be co-assigned to another codec in the same SDP profile.

Type: integer
Range: {96-127}
Default value: NULL

pTime Identifies the size in milliseconds of the packet containing the audio sample; i.e., the time over which data is accumulated before it is assembled into a packet.

Type: enum
Range: {10, 20, 30, 40}
Default value: 20

silSup Identifies whether silence suppression is enabled.

Type: BoolYN
Range: N = silence suppression is disabled
Y = silence suppression is enabled
Default value: N

toneRelay Identifies whether to carry tone signals in RTP packets.

Type: BoolYN
Range: DTMF = carry dual-tone multi-frequency signals
NULL = do not carry tone signals in RTP packets
Default value: NULL

relayPtype Identifies the dynamic range of the RTP payload type for tone-carrying packets. Each payload type is mapped to a single codec and cannot be co-assigned to another codec in the same SDP profile.

Type: integer
Range: {96-127}
Default value: 101

g726enc Identifies the encoding scheme for the G.726 protocol; that is, whether G.726 words are packed most or least significant bit first.

Type: enum
Range: LSB = least significant bit first; complies with RFC-3551
MSB = most significant bit first; complies with early deployments of G.726 over IP and follows ITU 366.2, conforming to transmission over ATM networks using AAL2
Default value: MSB

faxProtocol Identifies the protocol used to service fax streams.

Type: enum
Range: NOFALLBACK = When the value of *codec{1-5}* is "NULL", the switch does not renegotiate with the far end to switch codecs (from G.711 to T.38) for the current call. The fax may or may not go through.
PASSTHRU = When the value of *codec{1-5}* is "PCMA" (G.711 a-law) or "PCMU" (G.711 mu-law), the switch renegotiates with the far end using only the PCM entries in the SDP profile and rejects attempts by the far end to negotiate a T.38 connection. When there are no PCM entries "PASSTHRU" = "NOFALLBACK".
T38FALLBACK = The switch tries to set up a T38 call to service the fax stream. If negotiation with the far end fails or if local T38 resources are not available, the switch tries to set up a PASSTHRU call.
T38STRICT = The switch tries to set up a T38 call to service the fax stream. If negotiation with the far end fails or if local T38 resources are not available, the call is terminated.
Default value: PASSTHRU

g723Bitrate Identifies the rate, in Kbps, at which the DSP encodes the G.723 audio stream.

Type: enum
Range: 5.3K = 5300 bits/second
6.3K = 6300 bits/second
Default value: 6.3K

Input Examples:

```
DLT-PRFL-SDP::1;

ED-PRFL-SDP::1:::CODEC1=PCMU,
   CODEC2=CISCO-CLEAR-CHANNEL,CODEC3=X-CCD,
   CODEC4=CLEARMODE,CODEC5=NULL,PTYPE1=NULL,PTYPE2=96,
   PTYPE3=97,PTYPE4=98,PTYPE5=NULL,PTIME=20,SILSUP=N,
   TONERELAY=NULL,RELAYPTYPE=101,G726ENC=MSB,
   FAXPROTOCOL=PASSTHRU,G723BITRATE=6.3K;

ENT-PRFL-SDP::1:::CODEC1=PCMU,
   CODEC2=CISCO-CLEAR-CHANNEL,CODEC3=X-CCD,
   CODEC4=CLEARMODE,CODEC5=NULL,PTYPE1=NULL,PTYPE2=96,
   PTYPE3=97,PTYPE4=98,PTYPE5=NULL,PTIME=20,SILSUP=N,
   TONERELAY=NULL,RELAYPTYPE=101,G726ENC=MSB,
   FAXPROTOCOL=PASSTHRU,G723BITRATE=6.3K;

RTRV-PRFL-SDP::1;
```

Output Example:

```
   lucent 2004-05-15 14:37:49
M  0 COMPLD
   "1:CODEC1=PCMU,CODEC2=CISCO-CLEAR-CHANNEL,
      CODEC3=X-CCD,CODEC4=CLEARMODE,CODEC5=NULL,
      PTYPE1=NULL,PTYPE2=96,PTYPE3=97,PTYPE4=98,
      PTYPE5=NULL,PTIME=20,SILSUP=N,TONERELAY=NULL,
      RELAYPTYPE=101,G726ENC=MSB,FAXPROTOCOL=PASSTHRU,
      G723BITRATE=6.3K"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-PRFL-TGBILLING

Commands:

DLT-PRFL-TGBILLING: Delete Trunk Group Billing Profile

ED-PRFL-TGBILLING: Edit Trunk Group Billing Profile

ENT-PRFL-TGBILLING: Enter Trunk Group Billing Profile

RTRV-PRFL-TGBILLING: Retrieve Trunk Group Billing Profile

Descriptions:

DLT-PRFL-TGBILLING lets the user delete a trunk group profile established for billing purposes.

ED-PRFL-TGBILLING lets the user edit a trunk group profile used for billing purposes.

ENT-PRFL-TGBILLING lets the user establish a trunk group profile for billing purposes. ENT-PRFL-TGBILLING will not work unless ENT-TRKGRP has already been issued.

RTRV-PRFL-TGBILLING lets the user retrieve a trunk group profile used for billing purposes.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-PRFL-TGBILLING:[TID]:<billPrflId>:[CTAG];
```

```
ED-PRFL-TGBILLING:[TID]:<billPrflId>:[CTAG]::
   [INCOMINGREC=<incomingRec>],
   [OUTGOINGREC=<outgoingRec>],[CNAREC=<cnaRec>],
   [ICNID=<icnId>],[BNREC=<bnRec>],
   [APPEND164CN=<append164CHN>],
   [APPEND164CPN=<append164CPN>],
   [APPENDLNPTERM=<appendLNPTerm>],
   [APPENDLNPPBX=<appendLNPPBX>];
```

```
ENT-PRFL-TGBILLING:[TID]:<billPrflId>:[CTAG]::
   [INCOMINGREC=<incomingRec>],
   [OUTGOINGREC=<outgoingRec>],[CNAREC=<cnaRec>],
   [ICNID=<icnId>],[BNREC=<bnRec>],
   [APPEND164CN=<append164CHN>],
   [APPEND164CPN=<append164CPN>],
   [APPENDLNPTERM=<appendLNPTerm>],
   [APPENDLNPPBX=<appendLNPPBX>];

RTRV-PRFL-TGBILLING:[TID]:[<billPrflId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<billPrflId>:INCOMINGREC=<incomingRec>,
      OUTGOINGREC=<outgoingRec>,CNAREC=<cnaRec>,
      ICNID=<icnId>,RECBN=<recBN>,
      APPEND164CN=<append164CHN>,
      APPEND164CPN=<append164CPN>,
      APPENDLNPTERM=<appendLNPTerm>,
      APPENDLNPPBX=<appendLNPPBX>"
;
```

Parameters:

billPrflId Identifies the AID as a billing profile for trunk groups. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all trunk group billing profiles configured in the system will be returned.

Type: integer
Range: {1-9999}
Default value: none

incomingRec Identifies whether to include billing records for incoming calls.

Type: BoolYN
Range: N = do not include billing records for incoming calls
Y = include billing records for incoming calls
Default value: Y

outgoingRec Identifies whether to include billing records for outgoing calls.

Type: BoolYN
Range: N = do not include billing records for outgoing calls
Y = include billing records for outgoing calls
Default value: Y

cnaRec Identifies whether to enable Connecting Network Access (CNA) or Limited Connecting Network Access AMA recording.

Type: enum
Range: LIMITED = enable Limited Connecting Network Access AMA recording
OFF = disable Connecting Network Access AMA recording
ON = enable Connecting Network Access AMA recording
Default value: OFF

icnId Identifies the Interconnecting Network Code, which must be specified when the value of *cnaRec* is “ON” or “LIMITED”.

Type: integer
Range: {0-9999}
Default value: 0

bnRec Identifies whether to record the trunk group billing number in CNA AMA records.

Type: BoolYN
Range: N = do not record the billing number in CNA AMA records
Y = record the billing number in CNA AMA records
Default value: N

append164CHN Identifies whether to append module 164 containing the Chargeable Account Number to CNA AMA records.

Type: BoolYN
Range: N = do not append module 164 containing the Chargeable Account Number to CNA AMA records
Y = append module 164 containing the Chargeable Account Number to CNA AMA records
Default value: N

append164CPN Identifies whether to append module 164 containing the Calling Party Number to CNA AMA records.

Type: BoolYN
Range: N = do not append module 164 containing the Calling Party Number to CNA AMA records
Y = append module 164 containing the Calling Party Number to CNA AMA records
Default value: N

appendLNPTerm Identifies whether to append an originating party LNP module to terminating access AMA records.

Type: BoolYN
Range: N = do not append an originating party LNP module to terminating access AMA records
Y = append an originating party LNP module to terminating access AMA records
Default value: N

appendLNPPBX Identifies whether to append an originating party LNP module to AMA records for calls originating from a PBX.

Type: BoolYN
Range: N = do not append an originating party LNP module to AMA records for calls originating from a PBX
Y = append an originating party LNP module to AMA records for calls originating from a PBX
Default value: N

Input Examples:

```
DLT-PRFL-TGBILLING::1;

ED-PRFL-TGBILLING::1:::INCOMINGREC=Y,OUTGOINGREC=Y,
   CNAREC=OFF,ICNID=0,RECBN=N,APPEND164CN=N,
   APPEND164CPN=N,APPENDLNPTERM=N,APPENDLNPPBX=N;

ENT-PRFL-TGBILLING::1:::INCOMINGREC=Y,OUTGOINGREC=Y,
   CNAREC=OFF,ICNID=0,RECBN=N,APPEND164CN=N,
   APPEND164CPN=N,APPENDLNPTERM=N,APPENDLNPPBX=N;

RTRV-PRFL-TGBILLING::1;
```

Output Example:

```
   lucent 2004-05-15 14:37:49
M  0 COMPLD
   "1:INCOMINGREC=Y,OUTGOINGREC=Y,CNAREC=OFF,ICNID=0,
      BNREC=N,APPEND164CN=N,APPEND164CPN=N,
      APPENDLNPTERM=N,APPENDLNPPBX=N"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-SS7-TRK

Commands:

DLT-SS7-TRK: Delete SS7 Trunk

ED-SS7-TRK: Edit SS7 Trunk

ENT-SS7-TRK: Enter SS7 Trunk

RTRV-SS7-TRK: Retrieve SS7 Trunk

Descriptions:

DLT-SS7-TRK lets the user delete a trunk (ISUP tcic) or range of trunks.

ED-SS7-TRK lets the user change the name, availability, and primary state for a trunk (ISUP tcic) or range of trunks in a trunk group.

ENT-SS7-TRK lets the user establish a trunk (ISUP tcic) or range of trunks in a trunk group, associate it with a channel on a port on an I/O module, and, optionally, name it, establish its availability, and assign it a primary state. ENT-SS7-TRK will not work unless the following commands have already been issued in the listed order: ENT-SS7SYS, ENT-EQPT, ENT-T1, ENT-PRFL-PC, ENT-PC, ENT-PRFL-CIC, and ENT-TRKGRP.

RTRV-SS7-TRK lets the user retrieve the associated channel on a port on an I/O module, the name, availability, and state information for a trunk (ISUP tcic) or range of trunks in a trunk group.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-SS7-TRK:[TID]:<ss7TrkAid>:[CTAG];

ED-SS7-TRK:[TID]:<ss7TrkAid>:[CTAG]::[NAME=<trkName>],
   [PRECUT=<preCut>]:[<pst>];

ENT-SS7-TRK:[TID]:<ss7TrkAid>:[CTAG]::
   IOMPORTDS0=<iomPortDs0>,[NAME=<trkName>],
   [PRECUT=<preCut>]:[<pst>];

RTRV-SS7-TRK:[TID]:<ss7TrkAid>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<ss7TrkAid>:IOMPORTDS0=<iomPortDs0>,
      NAME=<trkName>,PRECUT=<preCut>:<pst>,[<sst>]"
;
```

Parameters:

ss7TrkAid Identifies the AID as a unique trunk (ISUP tcic) or range of trunks associated with a trunk group number. The first number in the range identifies the trunk group number and the second number identifies the trunk(s). A range of trunks is shown by the beginning and ending numbers separated by two ampersands and a hyphen ("&&-"). In the RTRV input, specifying only the trunk group number, but not the trunk, returns parameters for all configured trunks in the trunk group.

Type: Ss7TrkAid
Range: {1-9999}-{0-16382}
{1-9999}[-{0-16382}] (RTRV input only)
Default value: none

iomPortDs0 Identifies the I/O module, the DS1 port on the IOM, and the DS0 channel on the port.

Type: enum
Range: IOM-{1-17}-PORT-{1-28}-T0-{1-24} = a channel on a T1 port on a DS1 I/O module
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}-T0-{1-24} = a channel on a T1 port on an STS1 I/O module
IOM-{1-17}-T3-{1-8}-PORT-{1-28}-T0-{1-24} = a channel on a T1 port on a DS3 I/O module
Default value: none

trkName Identifies the name of the trunk.

Type: string
Range: up to 20 alphanumeric characters
Default value: none

preCut Identifies whether the trunk has not yet been turned up for service ("pre-cut"), or is available ("cut" – regardless of whether trunk is in-service or out-of-service).

Type: BoolYN
Range: N = trunk is cut (available, regardless of service state)
Y = trunk is pre-cut (has not yet been turned up for service)
Default value: N

pst Identifies (in ED and ENT) the primary state of the trunk(s).

Type: enum
Range: IS = In service
OOS = Out of service
RESET = Reset CIC
Default value: IS

pst Identifies (in RTRV output) the primary state of the trunk(s).

Type: enum
Range: IS = In service
IS-NR = In-Service, Normal
OOS = Out-Of-Service
OOS-AU = Out-Of-Service, Autonomous
OOS-MA = Out-Of-Service, Managed
OOS-AUMA = Out-Of-Service, Autonomous and Managed
Default value: none

sst Identifies (in RTRV output) the secondary state(s) for the trunk(s), with ampersands ("&") to separate multiple secondary states.

Type: enum
Range: ACT = Active
IDLE = Idle
INBUSY=Incoming Busy
LBLK = Locally Blocked
OUTBUSY=Outgoing Busy
RBLK = Remotely Blocked
RUEQ = Remote Unequipped
TRANS=Transient
Default value: none

Input Examples:

```
DLT-SS7-TRK::9999-1;

DLT-SS7-TRK::9999-25&&-99;

ED-SS7-TRK::9999-1:::NAME=SS7TRUNK1,PRECUT=N:IS;

ED-SS7-TRK::9999-25&&-99::::IS;

ENT-SS7-TRK::9999-1:::
   IOMPORTDS0=IOM-2-T3-2-PORT-28-T0-24,NAME=SS7TRUNK1,
   PRECUT=N:IS;

ENT-SS7-TRK::9999-25&&-99:::
   IOMPORTDS0=IOM-2-T3-2-PORT-28-T0-24:IS;

RTRV-SS7-TRK::9999-1;
```

Output Example:

```
   lucent 2004-05-15 14:37:49
M  0 COMPLD
   "9999-1:IOMPORTDS0=IOM-2-T3-2-PORT-28-T0-24,
      NAME=SS7TRUNK1,PRECUT=N:IS,ACT&IDLE"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-TRKGRP

Commands:

DLT-TRKGRP: Delete Trunk Group

ED-TRKGRP: Edit Trunk Group

ENT-TRKGRP: Enter Trunk Group

RTRV-TRKGRP: Retrieve Trunk Group

Descriptions:

DLT-TRKGRP lets the user delete a trunk group.

ED-TRKGRP lets the user change the parameters associated with a trunk group. Use this command to change any of the parameters listed in the description for ENT-TRKGRP, except for *sigType*, *dpc*, and *ipAddress*.

ENT-TRKGRP lets the user establish a trunk group. Use ENT-TRKGRP to identify the trunk group and its signaling type and, optionally, the trunk group class (for both the remote and local switch) and name, the destination point code, the method by which CICs are allocated, the direction of call flow for the trunk group, the initial state of the trunk group, the frequency at which continuity tests are performed on outgoing calls, the amount of echo cancellation for outgoing calls and whether echo cancellation processing is required because of a long delay, the far end CLLI code, the secondary local routing number, the CIC or CAS profile for the trunk group, the billing profile, whether to enable Generic Address Parameter validation, the class of service for the trunk group, the LATA used by the tollfree service, the Special Billing Number for the trunk group, the services to apply to the trunk group, the IP address and the maximum number of active calls allowed for SIP calling, the SDP profile, the remote port configuration for continuity testing, whether to send ISUP confusion messages or the Access Transport Parameter, the value sent in the infotransfer indicator of the User Service Information parameter in the IAM for calls on ISUP trunks, the list of AIN subscriber triggers applied to the trunk group, whether CNAM service is enabled for outgoing SIP trunk groups, the translation plan, the cost of the trunk group, the outgoing trunk group screening table name, the action to take after the trunk group has been chosen as an outgoing interface for the call, the bearer capabilities, the profiles with the incoming and outgoing parameter defaults, the incoming and outgoing profiles defining which parameters to suppress as the call leaves the switch, the fraud trap profile, whether to enable DMS switch identification routing/transport, whether to enable echo control non-linear processing, the standard specifying how the echo canceller behaves, up to five general-purpose variables for custom functionality, whether to accept requests to transfer call legs, the decibel gain or loss applied to signals, how to handle the

leading "+" character in SIP address fields, the SIP heartbeat interval, how to handle remote transfer and REFER with REPLACE processing, whether Canadian CNAM service is enabled, and whether to transmit the digits received in a REFER/RLT message as DTMF tones. ENT-TRKGRP will not work unless the following commands have already been issued: ENT-PRFL-CIC and ENT-PC for BICC or ISUP trunks, ENT-PRFL-CAS for CAS trunks. Additionally, establish the affected billing profile for all trunks and the affected SDP profile for BICC and SIP trunks.

RTRV-TRKGRP lets the user retrieve the properties of a trunk group, as listed in the description for ENT-TRKGRP.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-TRKGRP:[TID]:<tgn>:[CTAG];
```

```
ED-TRKGRP:[TID]:<tgn>:[CTAG]::[CLASS=<trkGrpClass>],
   [OWNCLASS=<ownClass>],[NAME=<trkgrpName>],
   [HUNTING=<hunting>],[HUNTPRIORITY=<huntpriority>],
   [DIRECTION=<direction>],[INITSTATE=<initState>],
   [COTFREQ=<cotFreq>],[ECHOCTRL=<echoCntrl>],
   [LONGDELAY=<longDelay>],[FARCLLI=<farEndClli>],
   [SECONDARYLRN=<secondaryOwnLrn>],
   [TGPROFILE=<tgPrfl>],[BILLPRFL=<billPrfl>],
   [VALIDATEGAP=<validateGap>],
   [CLASSOFSERVICE=<classOfSvc>],[LATAID=<lataId>],
   [SBLN=<sbln>],[TGSERVICE=<tgService>],
   [MAXIPCALLS=<maxIpCalls>],[SDPPRFL=<sdpPrfl>],
   [REMOTECOTTYPE=<remoteCotType>],
   [ISUPCONFUSIONMSG=<isupConfusionMsg>],[ATP=<atp>],
   [AUDIOIND=<audioInd>],[AINTRIGLIST=<aintriglist>],
   [CNAM=<cnam>],[TRANSPLAN=<transPlan>],
   [ROUTECOST=<routeCost>],[DGTSCRN=<dgtScrn>],
   [ACTNTERMATTMPT=<actnTermAttmpt>],
   [BEARERCAP=<bearerCap>],
   [ICPARAMDLFTPRFL=<icParamDlftPrfl>],
   [OGPARAMDFLTPRFL=<ogParamDfltPrfl>],
   [ICPARAMSUPPRESSPRFL=<icParamSuppressPrfl>],
   [OGPARAMSUPPRESSPRFL=<ogParamSuppressPrfl>],
   [FRAUDTRAPPRFL=<fraudTrapPrfl>],
   [USESWITCHID=<useSwitchId>],
   [ECHOCTRLNLP=<echoCtrlNLP>],
   [ECHOCTRLTYPE=<echoCtrlType>],
   [CUSTVAR1=<custVar1>],[CUSTVAR2=<custVar2>],
   [CUSTVAR3=<custVar3>],[CUSTVAR4=<custVar4>],
```

```
   [CUSTVAR5=<custVar5>],[REMOTEXFER=<remoteXfer>],
   [TXPAD=<txPad>],[RXPAD=<rxPad>],
   [SIPPLUS=<sipPlus>],[SIPHRTBTTMR=<sipHrtBtTmr>],
   [XFERIN=<xferIn>],[XFEROUT=<xferout>],
   [REFERREPLACE=<referreplace>],[CDNCNAM=<cdnCnam>],
   [XFERTODTMF=<xferToDtmf>],
   [XFERPREFIX=<xferPrefix>];

ENT-TRKGRP:[TID]:<tgn>:[CTAG]::<sigType>:
   [CLASS=<trkGrpClass>],[OWNCLASS=<ownClass>],
   [NAME=<trkGrpName>],[DPC=<dpc>],
   [HUNTING=<hunting>],[HUNTPRIORITY=<huntpriority>],
   [DIRECTION=<direction>],[INITSTATE=<initState>],
   [COTFREQ=<cotFreq>],[ECHOCTRL=<echoCntrl>],
   [LONGDELAY=<longDelay>],[FARCLLI=<farEndClli>],
   [SECONDARYLRN=<secondaryOwnLrn>],
   [TGPROFILE=<tgPrfl>],[BILLPRFL=<billPrfl>],
   [VALIDATEGAP=<validateGap>],
   [CLASSOFSERVICE=<classOfSvc>],[LATAID=<lataId>],
   [SBLN=<sbln>],[TGSERVICE=<tgService>],
   [IPADDR=<ipAddr>],[MAXIPCALLS=<maxIpCalls>],
   [SDPPRFL=<sdpPrfl>],
   [REMOTECOTTYPE=<remoteCotType>],
   [ISUPCONFUSIONMSG=<isupConfusionMsg>],[ATP=<atp>],
   [AUDIOIND=<audioInd>],[AINTRIGLIST=<aintriglist>],
   [CNAM=<cnam>],[TRANSPLAN=<transPlan>],
   [ROUTECOST=<routeCost>],[DGTSCRN=<dgtScrn>],
   [ACTNTERMATTMPT=<actnTermAttmpt>],
   [BEARERCAP=<bearerCap>],
   [ICPARAMDLFTPRFL=<icParamDlftPrfl>],
   [OGPARAMDFLT=<ogParamDflt>],
   [ICPARAMSUPRESSPRFL=<icParamSupressPrfl>],
   [OGSUPRESSPRFL=<ogSupressPrfl>],
   [FRAUDTRAPPRFL=<fraudTrapPrfl>],
   [USESWITCHID=<useSwitchId>],
   [ECHOCTRLNLP=<echoCtrlNLP>],
   [ECHOCTRLTYPE=<echoCtrlType>],
   [CUSTVAR1=<custVar1>],[CUSTVAR2=<custVar2>],
   [CUSTVAR3=<custVar3>],[CUSTVAR4=<custVar4>],
   [CUSTVAR5=<custVar5>],[REMOTEXFER=<remoteXfer>],
   [TXPAD=<txPad>],[RXPAD=<rxPad>],
   [SIPPLUS=<sipPlus>],[SIPHRTBTTMR=<sipHrtBtTmr>],
   [XFERIN=<xferIn>],[XFEROUT=<xferout>],
   [REFERREPLACE=<referreplace>],[CDNCNAM=<cdnCnam>],
   [XFERTODTMF=<xferToDtmf>],
   [XFERPREFIX=<xferPrefix>];

RTRV-TRKGRP:[TID]:[<tgn>]:[CTAG];
```

Output Format:

```
      SID DATE TIME
   M  CTAG COMPLD
      "<tgn>:<sigType>:CLASS=<TrkGrpClass>,
         OWNCLASS=<ownClass>,NAME=<trkGrpName>,DPC=<dpc>,
         HUNTING=<hunting>,HUNTPRIORITY=<huntpriority>,
         DIRECTION=<direction>,INITSTATE=<initState>,
         COTFREQ=<cotFreq>,ECHOCTRL=<echoCntrl>,
         LONGDELAY=<longDelay>,FARCLLI=<farEndClli>,
         SECONDARYLRN=<secondaryOwnLrn>,
         TGPROFILE=<tgPrfl>,BILLPRFL=<billPrfl>,
         VALIDATEGAP=<validateGap>,
         CLASSOFSERVICE=<classOfSvc>,[LATAID=<lataId>],
         SBLN=<sbln>,TGSERVICE=<tgService>,
         IPADDR=<ipAddr>,MAXIPCALLS=<maxIpCalls>,
         SDPPRFL=<sdpPrfl>,REMOTECOTTYPE=<remoteCotType>,
         ISUPCONFUSIONMSG=<isupConfusionMsg>,ATP=<atp>,
         AUDIOIND=<audioInd>,AINTRIGLIST=<aintriglist>,
         CNAM=<cnam>,TRANSPLAN=<transPlan>,
         ROUTECOST=<routeCost>,DGTSCRN=<dgtScrn>,
         ACTNTERMATTMPT=<actnTermAttmpt>,
         BEARERCAP=<bearerCap>,
         ICPARAMDLFTPRFL=<icParamDlftPrfl>,
         OGPARAMDFLT=<ogParamDflt>,
         ICPARAMSUPRESSPRFL=<icParamSupressPrfl>,
         OGSUPRESSPRFL=<ogSupressPrfl>,
         FRAUDTRAPPRFL=<fraudTrapPrfl>,
         USESWITCHID=<useSwitchId>,
         ECHOCTRLNLP=<echoCtrlNLP>,
         ECHOCTRLTYPE=<echoCtrlType>,CUSTUSE1=<custUse1>,
         CUSTVAR1=<custVar1>,CUSTUSE2=<custUse2>,
         CUSTVAR2=<custVar2>,CUSTUSE3=<custUse3>,
         CUSTVAR3=<custVar3>,CUSTUSE4=<custUse4>,
         CUSTVAR4=<custVar4>,CUSTUSE5=<custUse5>,
         CUSTVAR5=<custVar5>,REMOTEXFER=<remoteXfer>,
         TXPAD=<txPad>,RXPAD=<rxPad>,SIPPLUS=<sipPlus>,
         SIPHRTBTTMR=<sipHrtBtTmr>,XFERIN=<xferIn>,
         XFEROUT=<xferout>,REFERREPLACE=<referreplace>,
         CDNCNAM=<cdnCnam>,XFERTODTMF=<xferToDtmf>,
         XFERPREFIX=<xferPrefix>"
   ;
```

Parameters:

tgn Identifies the AID as a trunk group. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for all trunk groups configured in the system will be returned.

Type: TgnAid
Range: {1-9999}
Default value: none

sigType Identifies the signaling type for the trunk group.

Type: enum
Range: BICC = Bearer Independent Call Control
CAS = Channel-Associated Signaling
ISUP = ISDN Services User Part
SIP = Session Initiation Protocol
SIPT = Session Initiation Protocol for Telephones
Default value: none

trkGrpClass Identifies the trunk group class for the remote switch on which the trunk group terminates. When the value of *classOfSvc* is “FGD”, *trkGrpClass* and *ownClass* cannot have the same value.

Type: enum
Range: AT = Access Tandem
EO = End Office
INC = InterNational Carrier (applicable when the value of *sigType* is “CAS” and the value of *classOfSvc* is “FGD”)
IXC = Inter-eXchange Carrier
LT = Local Tandem
TT = Toll Tandem
Default value: AT

ownClass Identifies the trunk group class for the local switch when the value of *sigType* is “CAS” and the value of *classOfSvc* is “FGD”. When the value of *classOfSvc* is “FGD”, *trkGrpClass* and *ownClass* cannot have the same value.

Type: enum
Range: AT = Access Tandem
EO = End Office
IXC = Inter-eXchange Carrier
Default value: EO

trkGrpName Identifies the name of the trunk group.

Type: string
Range: up to 20 characters
Default value: NULL

dpc Identifies the destination point code for an ISUP or BICC trunk group. The value of *dpc* is "null" for CAS trunk groups.

Type: enum
Range: {0-255}-{0-255}-{0-255}
Default value: NULL

hunting Identifies the method by which CICs are allocated.

Type: enum
Range: CIRCULAR = Allocates the next free CIC, in ascending order, following the last CIC selected.
HIGHEST_AVAIL = Selects the highest available CIC
LIDLHI = Selects the least idle and highest available CIC (CAS and ISUP trunks only)
LIDLLO = Selects the least idle and lowest available CIC (CAS and ISUP trunks only)
LOWEST_AVAIL = Selects the lowest available CIC
MIDLHI = Selects the most idle and highest available CIC (CAS and ISUP trunks only)
MIDLLO = Selects the most idle and lowest available CIC (CAS and ISUP trunks only)
RANDOM = Allocates the next free channel, in ascending order, based on a random entry into a numbered list of resources. After the first allocation from that numbered list of resources, subsequent attempts to find a free resource use the circular method.
Default value: CIRCULAR

huntPriority Identifies whether hunting searches even, odd, or both numbered channels (for CAS) or CICs (for ISUP), but only when the value of hunting is "LIDLHI", "LIDLLO", "MIDLHI", or "MIDLLO".

Type: enum
Range: BOTH
EVEN
ODD
Default value: BOTH

direction Identifies whether the switch originates outgoing calls and/or accepts incoming calls on a trunk group.

Type: enum
Range: CICBOTHWAY = On these circuits, the switch both accepts incoming calls from the adjacent switch and originates outgoing call legs. The switch with the larger point code controls glare on even-numbered trunks and the switch with the smaller point code controls glare on odd-numbered trunks.

CICCONTROLLED = On these circuits, the switch both accepts incoming calls from the adjacent switch and originates outgoing call legs. The adjacent switch controls glare and the switch has a glare setting of "NONE". Valid only when the value of *sigType* is “BICC” or “ISUP”.

CICCONTROLLING = On these circuits, the switch both accepts incoming calls from the adjacent switch and originates outgoing call legs. The switch controls glare and has a glare setting of "ALL". Valid only when the value of *sigType* is “BICC” or “ISUP”.

CICINCOMING = On these circuits, the switch accepts incoming calls from the adjacent switch but does not originate outgoing call legs. The adjacent switch controls glare and the switch has a glare setting of "NONE". Valid only when the value of *sigType* is “BICC” or “ISUP”.

CICOUTGOING = On these circuits, the switch originates outgoing call legs but does not accept incoming calls from the adjacent switch. The switch controls glare and has a glare setting of "ALL". Valid only when the value of *sigType* is “BICC” or “ISUP”.

Default value: CICBOTHWAY

initState Identifies the initial state of the trunk group.

Type: enum
Range: IDLE = Trunk group idle
Default value: IDLE

cotFreq Identifies the frequency at which continuity tests are performed on outgoing calls when the value of *sigType* is “BICC” or “ISUP”. This parameter is not applicable for CAS and SIP trunk groups.

Type: integer
Range: {0-32}
Default value: 0

echoCntrl Identifies the amount, in milliseconds, of echo cancellation for outgoing calls (i.e., the length of the echo tail).

Type: integer
Range: {0-128}
Default value: 0

longDelay Identifies whether echo cancellation processing is required because of a long delay (echo tail).

Type: BoolYN
Range: N = echo processing is off (for short-haul; i.e., less than 15 msec propagation delay)
Y = echo processing is on (for long-haul)
Default value: N for ISUP/CAS
Y for SIP/BICC

farEndClli Identifies the Common Language Location Identification code at the far end. This parameter is used for circuit maintenance, to allow the remote switch operator to get the information configured for the trunk group. The parameter may be entered either as 15 characters, the first four being the trunk number and the next 11 being the far end CLLI, or as just the 11-character CLLI. The parameter may not be entered unless a value has already been assigned to the parameter *clli* in the command ED-CHASSIS-EQPT.

Type: string
Range: 11 or 15 alphanumeric characters
Default value: NULL

secondaryOwnLrn Identifies a secondary local routing number associated with outgoing calls for the trunk group.

Type: string
Range: exactly 10 digits
Default value: NULL

tgPrfl Identifies the profile for the trunk group. The value of *tgPrfl* must match a value either of *cicPrflId* established with ENT-PRFL-CIC when the value of *sigType* is “BICC” or “ISUP”, or of *casPrflId* established with ENT-PRFL-CAS when the value of *sigType* is “CAS”.

Type: string
Range: {1-128}
Default value: NULL

billPrfl Identifies the billing profile for the trunk group, previously defined with ENT-PRFL-TGBILLING. Billing profile "1" is pre-loaded on the system.

Type: integer
Range: {1-128}
Default value: 1

validateGap Identifies whether to enable Generic Address Parameter validation against the subscribers for the trunk group. Set the value of *validateGap* to "N" if the switch hosts local routing numbers (LRNs) but does not support Class 5 subscribers.

Type: BoolYN
Range: N = do not perform GAP validation
Y = perform GAP validation
Default value: Y

classOfSvc Identifies how to route incoming messages on the trunk group. When the value of *classOfSvc* is "FGD", *trkGrpClass* and *ownClass* cannot have the same value.

Type: enum
Range: 911 = 911 CAS
AIS = Automatic Intercept Signal
BLV = Busy Line Verification
FGD = Feature Group D (ISUP and CAS only)
MDP = Maintenance Dial Plan
NULL = no value
Default value: NULL

lataId Identifies the LATA used by the tollfree service for incoming calls on the trunk.

Type: enum
Range: {100-999, 10000-99999}
NULL = no value
Default value: NULL

sbln Identifies the Special Billing Number, to which incoming calls without a specific number are to be billed.

Type: string
Range: six, seven, or 10 digits
Default value: NULL

tgService Identifies a service to apply to the trunk group. Use an ampersand ("&") to select both services.

Type: string
Range: PORTEDIN = Ported number service applied to outbound calls on an ISUP trunk group or when the terminating switch can't handle pre-dipped LNP calls. When set to "PORTEDIN", outbound calls associated with this trunk group that have been dipped for LNP (with the Called Party Number set to the LRN) will have the CDPN set to the original called number (in the GAP parameter), will remove the GAP parameter (containing the original called number), and will set the M-bit of the Forward Call Indicator to indicate a non-dipped call.
NOLNP = do not perform LNP queries for incoming calls on the trunk group
Default value: NULL

ipAddr Identifies the IP address when the value of *sigType* is "SIP" or "SIPT".

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: NULL

maxIpCalls Identifies the maximum number of active calls allowed on the trunk group when the value of *sigType* is "SIP" or "SIPT".

Type: integer
Range: {0-21504}
Default value: 0 (21504 for SIP and SIPT calls)

sdpPrfl Identifies the SDP (Session Description Protocol) profile for the trunk group when the value of *sigType* is "BICC", SIP", or "SIPT". An SDP profile defines the codec and packet interval applicable to a BICC or SIP trunk group, and whether silence suppression is enabled. SDP profile 1 is pre-loaded; establish other profiles with ENT-PRFL-SDP.

Type: integer
Range: {1-255}
Default value: 1, when the value of *sigType* is "BICC", SIP", or "SIPT"
NULL, when the value of *sigType* is "CAS" or "ISUP"

remoteCotType Identifies whether the remote switch port used for continuity testing with the switch is a two-wire or four-wire port.

Type: enum
Range: 2WIRE
4WIRE
Default value: 4WIRE

isupConfusionMsg Identifies whether to send an ISUP confusion message when ISUP receives an unrecognized message.

Type: BoolYN
Range: N = do not send ISUP confusion message
Y = send ISUP confusion message
Default value: Y (for ISUP)
N (for BICC, CAS, or SIP)

atp Identifies whether to send the Access Transport Parameter (ATP).

Type: BoolYN
Range: N = do not send ATP
Y = send ATP
Default value: Y (for ISUP)
N (for BICC, CAS, or SIP)

audioInd Identifies the value that overrides the default value sent in the infotransfer indicator of the User Service Information parameter in the IAM for calls on ISUP trunks.

Type: enum
Range: 3.1KHZ = infotransfer default value is overridden to indicate 3.1KHz audio in BearerCap/UserServiceInformation of IAM message
DEFAULT = infotransfer indicator is determined by the ISDN interworking functionality and is not overridden by provisioning
SPEECH = infotransfer default value is overridden to indicate speech in the BearerCap/UserServiceInformation of IAM message
Default value: DEFAULT

aintriglist Identifies a list of AIN triggers. Define AIN trigger lists with ENT-LIST-AINTRIGGER. The list entries must have a category of SUBSCRIBER and can only use the OPERATOR_SEVICES, SPECIFIC_DIGIT_STRING, and INTERNATIONAL trigger types. Don't assign office category triggers to the trunk group.

Type: string
Range: up to 20 alphanumeric characters
Default value: NULL

cnam Identifies whether CNAM service is enabled for outgoing SIP or SIP-T trunk groups. When enabled, the switch issues CNAM queries for SIP trunk groups.

Type: BoolYN
Range: N = the switch does not issue CNAM queries
Y = the switch issues CNAM queries
Default value: N

transPlan Identifies the translation plan, previously defined with ENT-TRANS-PLAN or ENT-TRANS-SCHED.

Type: string
Range: up to 10 alphanumeric characters
Default value: DEFAULT

routeCost Identifies the cost of the trunk group. The value "101" indicates that the trunk group is not available for routing.

Type: integer
Range: {0-101}
Default value: 0

dgtScrn Identifies the outgoing trunk group screening table name, previously defined with ENT-DIGIT-SCREEN and which contains a list of restricted trunk groups. This parameter prevents incoming/outgoing trunk combinations.

Type: string
Range: up to 10 alphanumeric characters
Default value: NULL

actnTermAttmpt Identifies the action to take after the trunk group has been chosen as an outgoing interface for the call.

Type: string

Range: up to 10 alphanumeric characters for each part of either of the following forms:

DGTMODKEY-<dmLbl>-<primKey>, where

dmLbl identifies the name of the applicable digit modification table with a string of 1-10 alphanumeric characters;

primKey identifies the primary key applicable to the specified digit modification table, with values of:

CALLTYPE = type of call (Class 5)
CDPN = called party number
CGPN = calling party number
CHRGN = charge number
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
CSI = Carrier Selection Information
GAP-{0-255} = Generic Address Parameter
GENDGTS-{0-31} = Generic Digits
GP-{0-255} = Generic Parameter
JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
REG-{1-6} = Register index
TNS = Transit Network Selection

DGTSCRNKEY-<dgtScrnLbl>-<primKey>, where

dgtScrnLbl identifies the name of the applicable screening table with a string of 1-10 characters;

primKey identifies the primary key applicable to the specified screening table, with values of:

BGN = Bearer Group Number (interface type)
CALLTYPE = type of call (Class 5)
CDPN = called party number
CGPN = calling party number
CHRGN = charge number
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
CSI = Carrier Selection Information
GAP-{0-255} = Generic Address Parameter
GENDGTS-{0-31} = Generic Digits

JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
SUBSTATUS = Subscriber status (valid only when the value "SUB" is the first listed for the parameter *actnInfoAnlz* in TRANS-PLAN)
TNS = Transit Network Selection

Default value: NULL

bearerCap Identifies the bearer capabilities for the trunk group, with ampersands ("&") to separate multiple bearer capabilities.

Type: string
Range: 3.1KHZ
DIGITALWITHTONES
RESDIGITAL
SPEECH
UNRESDIGITAL
VIDEO
Default values: SPEECH&UNRESDIGITAL& RESDIGITAL& VIDEO&DIGITALWITHTONES (for BICC/ISUP/SIP)
SPEECH&3.1KHZ (for CAS)

icParamDfltPrfl Identifies the incoming parameter default profile, previously defined with ENT-PRFL-PARAMDEFAULTS.

Type: string
Range: up to 10 alphanumeric characters
Default value: NULL

ogParamDfltPrfl Identifies the outgoing parameter default profile, previously defined with ENT-PRFL-PARAMDEFAULTS.

Type: string
Range: up to 10 alphanumeric characters
Default value: NULL

icParamSuppressPrfl Identifies the profile defining which parameters to suppress as the call leaves the switch based on the incoming trunk group, previously defined with ENT-PRFL-PARAMSUPPRESS.

Type: string
Range: up to 10 alphanumeric characters
Default value: NULL

ogParamSuppressPrfl Identifies the profile defining which parameters to suppress as the call leaves the switch, previously defined with ENT-PRFL-PARAMSUPPRESS.

Type: string
Range: up to 10 alphanumeric characters
Default value: NULL

fraudTrapPrfl Identifies the fraud trap profile, previously defined with ENT-PRFL-FRAUDTRAP.

Type: string
Range: up to 10 alphanumeric characters
Default value: NULL

useSwitchId Identifies whether to enable DMS switch identification routing/transport.

Type: BoolYN
Range: N = do not enable DMS switch identification routing/transport
Y = enable DMS switch identification routing/transport
Default value: N

echoCtrlNLP Identifies whether to enable echo control non-linear processing.

Type: BoolYN
Range: N = do not enable echo control non-linear processing
Y = enable echo control non-linear processing
Default value: Y

echoCtrlType Identifies the standard specifying how the echo canceller behaves; that is, the conditions under which to disable echo cancellation when a modem/FAX call is received

Type: enum
Range: G164 = G.164: disable echo canceller only on receipt of a 2100 Hz answer tone without a phase reversal.
G165 = G.165: disable echo canceller only on receipt of a 2100 Hz answer tone with a phase reversal.
G168 = G.168: disable just the NLP (Non-linear Processor) portion of the echo canceller only on receipt of a 2100 Hz answer tone without a phase reversal. Disable the entire echo canceller on receipt of a 2100 Hz answer tone with a phase reversal.
NONE = no standard
Default value: G168

custUse1 Identifies (in RTRV output) the use of custom variable 1.

Type: string
Range: up to 32 alphanumeric characters
Default value: NULL

custVar1 Identifies custom variable 1.

Type: string
Range: up to 16 alphanumeric characters
Default value: NULL

custUse2 Identifies (in RTRV output) the use of custom variable 2.

Type: string
Range: up to 32 alphanumeric characters
Default value: NULL

custVar2 Identifies custom variable 2.

Type: string
Range: up to 16 alphanumeric characters
Default value: NULL

custUse3 Identifies (in RTRV output) the use of custom variable 3.

Type: string
Range: up to 32 alphanumeric characters
Default value: NULL

custVar3 Identifies custom variable 3.

Type: string
Range: up to 16 alphanumeric characters
Default value: NULL

custUse4 Identifies (in RTRV output) the use of custom variable 4.

Type: string
Range: up to 32 alphanumeric characters
Default value: NULL

custVar4 Identifies custom variable 4.

Type: string
Range: up to 16 alphanumeric characters
Default value: NULL

custUse5 Identifies (in RTRV output) the use of custom variable 5.

Type: string
Range: up to 32 alphanumeric characters
Default value: NULL

custVar5 Identifies custom variable 5.

Type: string
Range: up to 16 alphanumeric characters
Default value: NULL

remoteXfer Identifies whether to accept requests to transfer legs of a call on ISUP, SIP or SIP-T trunk groups. When set to the default "N" (call leg transfer disabled, the switch sends an FRJ (FAR Reject) message in response to a received FAR (Facility Request) message on ISUP truck groups, or a 405 (Method not allowed) message in response to a received REFER message on SIP truck groups. On REFER/RLT (Release Link Trunk) calls to a trunk with call leg transfer disabled, the switch establishes a "tromboning" call using the outgoing protocol (IAM, INVITE, SETUP) instead of sending a FAC (for ISUP) or a REFER (for SIP).

Type: BoolYN
Range: N = do not enable call leg transfer
Y = enable call leg transfer
Default value: N

txPad Identifies, for BICC, CAS, and ISUP trunk groups, the amount of gain or loss (in decibels) the switch applies to transmitted signals. Positive values amplify the signal; negative values attenuate the signal.

Type: enum
Range: -15DB, -12DB, -10DB, -9DB, -8 DB, -6DB, -4DB, -3DB, -2DB, [0DB], 2DB, 3DB, 4DB, 6DB
Default value: 0DB

rxPad Identifies, for BICC, CAS, and ISUP trunk groups, the amount of gain or loss (in decibels) the switch applies to received signals. Positive values amplify the signal; negative values attenuate the signal.

Type: enum
Range: -15DB, -12DB, -10DB, -9DB, -8 DB, -6DB, -4DB, -3DB, -2DB, [0DB], 2DB, 3DB, 4DB, 6DB
Default value: 0DB

sipPlus Identifies, for SIP and SIP-T trunk groups, whether to interpret a leading "+" character in the address field of the "To", "From", "Remote-Party-ID" or "Request-URI" headers of a SIP request, as meaning that a fully-qualified E.164 address follows.

Type: BoolYN
Range: N = For incoming SIP requests, ignore the leading "+" character in all SIP address fields. For outgoing SIP requests, never insert a leading "+" character to an address field.
Y = Follow RFC 3398 recommendations for treatment of a leading "+" character: For incoming SIP requests, treat a leading "+" character in a SIP address as an indication that a fully-qualified E.164 address follows. For outgoing SIP requests, add a leading "+" character to address fields when an E.164 address is included.
Default value: N

sipHrtBtTmr Identifies the duration, in seconds, of the heartbeat interval for SIP and SIP-T trunk groups. The value "0" disables the heartbeat for the trunk group.

Type: integer
Range: {0-3600}
Default value: 0

xferIn Identifies, for ISUP, SIP and SIP-T trunk groups, on which call leg on the trunk group that a remote transfer can be received.

Type: enum
Range: BOTH = Both ingress and egress call legs
IC = Incoming (ingress) call leg
NULL = remote transfer not accepted
OG = Outgoing (egress) call leg
Default value: NULL

xferOut Identifies, for CAS, ISUP, SIP and SIP-T trunk groups, on which call leg on the trunk group that a remote transfer can be transmitted.

Type: enum
Range: BOTH = Both ingress and egress call legs
IC = Incoming (ingress) call leg
NULL = remote transfer not accepted
OG = Outgoing (egress) call leg
Default value: NULL

referReplace Identifies, for a SIP or SIP-T trunk group over which a REFER message is received, how to handle REFER with REPLACE processing, where the switch has the call leg to which another call is referrred.

Type: enum
Range: FORCEDROUTE = INVITE with RELACE transmitted based on route provisioning
INVITE = call leg replaced using INVITE with REPLACE to the terminating party on the call leg
NORMAL = call leg replaced without any call signaling
Default value: INVITE

cdnCnam Identifies whether Canadian CNAM service is enabled for outgoing SS7 trunk groups.

Type: BoolYN
Range: N = the switch does not issue Canadian CNAM queries
Y = the switch issues Canadian CNAM queries
Default value: N

xferToDtmf Identifies, for a CAS or SS7 trunk group over which a REFER or RLT message is received, the mode in which the digits received in the REFER/RLT are transmitted as DTMF tones on the trunk.

Type: enum
Range: DIGITS = Transmit only the received digits (for both CAS and SS7 trunks)
DISABLE = Disable feature
HFDIGITS = Transmit a Hook Flash before transmitting the received digits (for CAS trunks only)
Default value: DISABLE

xferPrefix Identifies, when the value of *xferToDtmf* is “DIGITS” or “HFDIGITS”, the digits to transmit as DTMF tones before transmitting the digits received in the REFER/RLT message.

Type: string
Range: up to 10 digits (including “#” and “*”)
Default value: NULL

Input Examples:

```
DLT-TRKGRP::1;

ED-TRKGRP::111:::CLASS=AT,OWNCLASS=EO,NAME=TRKGRP1,
   HUNTING=CIRCULAR,HUNTPRIORITY=BOTH,
   DIRECTION=CICBOTHWAY,INITSTATE=IDLE,COTFREQ=0,
   ECHOCNTRL=0,LONGDELAY=N,FARCLLI=NULL,
   SECONDARYLRN=NULL,TGPROFILE=1,BILLPRFL=1,
   VALIDATEGAP=Y,CLASSOFSERVICE=NULL,LATAID=NULL,
   SBLN=NULL,TGSERVICE=NULL,MAXIPCALLS=0,
   SDPPRFL=NULL,REMOTECOTTYPE=4WIRE,
   ISUPCONFUSIONMSG=Y,ATP=Y,AUDIOIND=DEFAULT,
   AINTRIGLIST=NULL,CNAM=N,TRANSPLAN=DEFAULT,
   ROUTECOST=0,DGTSCRN=NULL,ACTNTERMATTMPT=NULL,
   BEARERCAP=SPEECH&UNRESDIGITAL&RESDIGITAL&3.1KHZ&
         DIGITALWITHTONES&VIDEO,ICPARAMDLFTPRFL=NULL,
   OGPARAMDFLT=NULL,ICPARAMSUPRESSPRFL=NULL,
   OGSUPRESSPRFL=NULL,FRAUDTRAPPRFL=NULL,
   USESWITCHID=N,ECHOCTRLNLP=Y,ECHOCRTLTYPE=G168,
   CUSTVAR1=NULL,CUSTVAR2=NULL,CUSTVAR3=NULL,
   CUSTVAR4=NULL,CUSTVAR5=NULL,TXPAD=0DB,RXPAD=0DB,
   SIPPLUS=N,SIPHRTBTTMR=0,XFERIN=NULL,XFEROUT=NULL,
   REFERREPLACE=INVITE,CDNCNAM=N,XFERTODTMF=DIGITS,
   XFERPREFIX=*123789#;

ENT-TRKGRP::111:::ISUP:CLASS=AT,OWNCLASS=EO,
   NAME=TRKGRP1,DPC=011-022-022,HUNTING=CIRCULAR,
   HUNTPRIORITY=BOTH,DIRECTION=CICBOTHWAY,
   INITSTATE=IDLE,COTFREQ=0,ECHOCNTRL=0,LONGDELAY=N,
   FARCLLI=NULL,SECONDARYLRN=NULL,TGPROFILE=1,
   BILLPRFL=1,VALIDATEGAP=Y,CLASSOFSERVICE=NULL,
   LATAID=NULL,SBLN=NULL,TGSERVICE=NULL,IPADDR=NULL,
   MAXIPCALLS=0,SDPPRFL=NULL,REMOTECOTTYPE=4WIRE,
   ISUPCONFUSIONMSG=Y,ATP=Y,AUDIOIND=DEFAULT,
   AINTRIGLIST=NULL,CNAM=N,TRANSPLAN=DEFAULT,
   ROUTECOST=0,DGTSCRN=NULL,ACTNTERMATTMPT=NULL,
   BEARERCAP=SPEECH&UNRESDIGITAL&RESDIGITAL&3.1KHZ&
      DIGITALWITHTONES&VIDEO,ICPARAMDLFTPRFL=NULL,
   OGPARAMDFLT=NULL,ICPARAMSUPRESSPRFL=NULL,
   OGSUPRESSPRFL=NULL,FRAUDTRAPPRFL=NULL,
   USESWITCHID=N,ECHOCTRLNLP=Y,ECHOCRTLTYPE=G168,
   CUSTVAR1=NULL,CUSTVAR2=NULL,CUSTVAR3=NULL,
   CUSTVAR4=NULL,CUSTVAR5=NULL,TXPAD=0DB,RXPAD=0DB,
   SIPPLUS=N,SIPHRTBTTMR=0,XFERIN=NULL,XFEROUT=NULL,
   REFERREPLACE=INVITE,CDNCNAM=N,XFERTODTMF=DIGITS,
   XFERPREFIX=*123789#;

RTRV-TRKGRP::1;
```

Output Example:

```
   lucent 2004-05-15 14:37:49
M  0 COMPLD
   "100:SIP:CLASS=AT,OWNCLASS=EO,NAME=SIP,DPC=NULL,
      HUNTING=CIRCULAR,HUNTPRIORITY=BOTH,
      DIRECTION=CICBOTHWAY,INITSTATE=IDLE,COTFREQ=0,
      ECHOCTRL=0,LONGDELAY=Y,FARCLLI=NULL,
      SECONDARYLRN=NULL,TGPROFILE=NULL,BILLPRFL=1,
      VALIDATEGAP=Y,CLASSOFSERVICE=NULL,LATAID=NULL,
      SBLN=NULL,TGSERVICE=NULL,IPADDR=22.0.0.0,
      MAXIPCALLS=21504,SDPPRFL=1,REMOTECOTTYPE=4WIRE,
      ISUPCONFUSIONMSG=N,ATP=N,AUDIOIND=DEFAULT,
      AINTRIGLIST=NULL,CNAM=N,TRANSPLAN=DEFAULT,
      ROUTECOST=0,DGTSCRN=NULL,ACTNTERMATTMPT=NULL,
      BEARERCAP=SPEECH&UNRESDIGITAL&RESDIGITAL&3.1KHZ&
         DIGITALWITHTONES&VIDEO,
      ICPARAMDFLTPRFL=NULL,OGPARAMDFLTPRFL=NULL,
      ICPARAMSUPPRESSPRFL=NULL,
      OGPARAMSUPPRESSPRFL=NULL,FRAUDTRAPPRFL=NULL,
      USESWITCHID=N,ECHOCTRLNLP=Y,ECHOCTRLTYPE=G168,
      CUSTUSE1=NULL,CUSTVAR1=NULL,CUSTUSE2=NULL,
      CUSTVAR2=NULL,CUSTUSE3=NULL,CUSTVAR3=NULL,
      CUSTUSE4=NULL,CUSTVAR4=NULL,CUSTUSE5=NULL,
      CUSTVAR5=NULL,TXPAD=0DB,RXPAD=0DB,SIPPLUS=N,
      SIPHRTBTTMR=0,XFERIN=NULL,XFEROUT=NULL,
      REFERREPLACE=INVITE,CDNCNAM=N,
      XFERTODTMF=DISABLE,XFERPREFIX=NULL"

   "102:BICC:CLASS=AT,OWNCLASS=EO,NAME=BICC,
      DPC=033-023-022,HUNTING=CIRCULAR,
      HUNTPRIORITY=BOTH,DIRECTION=CICBOTHWAY,
      INITSTATE=IDLE,COTFREQ=0,ECHOCTRL=0,LONGDELAY=Y,
      FARCLLI=NULL,SECONDARYLRN=NULL,TGPROFILE=1,
      BILLPRFL=1,VALIDATEGAP=Y,CLASSOFSERVICE=NULL,
      LATAID=NULL,SBLN=NULL,TGSERVICE=NULL,
      IPADDR=NULL,MAXIPCALLS=0,SDPPRFL=1,
      REMOTECOTTYPE=4WIRE,ISUPCONFUSIONMSG=N,ATP=N,
      AUDIOIND=DEFAULT,AINTRIGLIST=NULL,CNAM=N,
      TRANSPLAN=DEFAULT,ROUTECOST=0,DGTSCRN=NULL,
      ACTNTERMATTMPT=NULL,
      BEARERCAP=SPEECH&UNRESDIGITAL&RESDIGITAL&3.1KHZ&
         DIGITALWITHTONES&VIDEO,
      ICPARAMDFLTPRFL=NULL,OGPARAMDFLTPRFL=NULL,
      ICPARAMSUPPRESSPRFL=NULL,
      OGPARAMSUPPRESSPRFL=NULL,FRAUDTRAPPRFL=NULL,
      USESWITCHID=N,ECHOCTRLNLP=Y,ECHOCTRLTYPE=G168,
```

```
      CUSTUSE1=NULL,CUSTVAR1=NULL,CUSTUSE2=NULL,
      CUSTVAR2=NULL,CUSTUSE3=NULL,CUSTVAR3=NULL,
      CUSTUSE4=NULL,CUSTVAR4=NULL,CUSTUSE5=NULL,
      CUSTVAR5=NULL,TXPAD=0DB,RXPAD=0DB,SIPPLUS=N,
      SIPHRTBTTMR=0,XFERIN=NULL,XFEROUT=NULL,
      REFERREPLACE=INVITE,CDNCNAM=N,
      XFERTODTMF=DISABLE,XFERPREFIX=NULL"

   "105:SIPT:CLASS=AT,OWNCLASS=EO,NAME=SIPT,DPC=NULL,
      HUNTING=CIRCULAR,HUNTPRIORITY=BOTH,
      DIRECTION=CICBOTHWAY,INITSTATE=IDLE,COTFREQ=0,
      ECHOCTRL=0,LONGDELAY=Y,FARCLLI=NULL,
      SECONDARYLRN=NULL,TGPROFILE=NULL,BILLPRFL=1,
      VALIDATEGAP=Y,CLASSOFSERVICE=NULL,LATAID=NULL,
      SBLN=NULL,TGSERVICE=NULL,IPADDR=33.0.0.0,
      MAXIPCALLS=21504,SDPPRFL=1,REMOTECOTTYPE=4WIRE,
      ISUPCONFUSIONMSG=N,ATP=N,AUDIOIND=DEFAULT,
      AINTRIGLIST=NULL,CNAM=N,TRANSPLAN=DEFAULT,
      ROUTECOST=0,DGTSCRN=NULL,ACTNTERMATTMPT=NULL,
      BEARERCAP=SPEECH&UNRESDIGITAL&RESDIGITAL&3.1KHZ&
         DIGITALWITHTONES&VIDEO,
      ICPARAMDFLTPRFL=NULL,OGPARAMDFLTPRFL=NULL,
      ICPARAMSUPPRESSPRFL=NULL,
      OGPARAMSUPPRESSPRFL=NULL,FRAUDTRAPPRFL=NULL,
      USESWITCHID=N,ECHOCTRLNLP=Y,ECHOCTRLTYPE=G168,
      CUSTUSE1=NULL,CUSTVAR1=NULL,CUSTUSE2=NULL,
      CUSTVAR2=NULL,CUSTUSE3=NULL,CUSTVAR3=NULL,
      CUSTUSE4=NULL,CUSTVAR4=NULL,CUSTUSE5=NULL,
      CUSTVAR5=NULL,TXPAD=0DB,RXPAD=0DB,SIPPLUS=N,
      SIPHRTBTTMR=0,XFERIN=NULL,XFEROUT=NULL,
      REFERREPLACE=INVITE,CDNCNAM=N,
      XFERTODTMF=DISABLE,XFERPREFIX=NULL"

   "111:ISUP:CLASS=AT,OWNCLASS=EO,NAME=TRKGRP1,
      DPC=011-022-022,HUNTING=CIRCULAR,
      HUNTPRIORITY=BOTH,DIRECTION=CICBOTHWAY,
      INITSTATE=IDLE,COTFREQ=0,ECHOCTRL=0,LONGDELAY=N,
      FARCLLI=NULL,SECONDARYLRN=NULL,TGPROFILE=1,
      BILLPRFL=1,VALIDATEGAP=Y,CLASSOFSERVICE=NULL,
      LATAID=NULL,SBLN=NULL,TGSERVICE=NULL,
      IPADDR=NULL,MAXIPCALLS=0,SDPPRFL=NULL,
      REMOTECOTTYPE=4WIRE,ISUPCONFUSIONMSG=Y,ATP=Y,
      AUDIOIND=DEFAULT,AINTRIGLIST=NULL,CNAM=N,
      TRANSPLAN=DEFAULT,ROUTECOST=0,DGTSCRN=NULL,
      ACTNTERMATTMPT=NULL,
      BEARERCAP=SPEECH&UNRESDIGITAL&RESDIGITAL&3.1KHZ&
         DIGITALWITHTONES&VIDEO,
```

```
         ICPARAMDFLTPRFL=NULL,OGPARAMDFLTPRFL=NULL,
         ICPARAMSUPPRESSPRFL=NULL,
         OGPARAMSUPPRESSPRFL=NULL,FRAUDTRAPPRFL=NULL,
         USESWITCHID=N,ECHOCTRLNLP=Y,ECHOCTRLTYPE=G168,
         CUSTUSE1=NULL,CUSTVAR1=NULL,CUSTUSE2=NULL,
         CUSTVAR2=NULL,CUSTUSE3=NULL,CUSTVAR3=NULL,
         CUSTUSE4=NULL,CUSTVAR4=NULL,CUSTUSE5=NULL,
         CUSTVAR5=NULL,TXPAD=0DB,RXPAD=0DB,SIPPLUS=N,
         SIPHRTBTTMR=0,XFERIN=NULL,XFEROUT=NULL,
         REFERREPLACE=INVITE,CDNCNAM=N,XFERTODTMF=DIGITS,
         XFERPREFIX=*123789#"

      "3006:CAS:CLASS=AT,OWNCLASS=EO,NAME=FGD,
         DPC=NULL,HUNTING=CIRCULAR,HUNTPRIORITY=BOTH,
         DIRECTION=CICBOTHWAY,INITSTATE=IDLE,COTFREQ=0,
         ECHOCTRL=0,LONGDELAY=N,FARCLLI=NULL,
         SECONDARYLRN=NULL,TGPROFILE=3,BILLPRFL=1,
         VALIDATEGAP=Y,CLASSOFSERVICE=FGD,LATAID=NULL,
         SBLN=NULL,TGSERVICE=NULL,IPADDR=NULL,
         MAXIPCALLS=0,SDPPRFL=NULL,REMOTECOTTYPE=4WIRE,
         ISUPCONFUSIONMSG=N,ATP=N,AUDIOIND=DEFAULT,
         AINTRIGLIST=NULL,CNAM=N,TRANSPLAN=DEFAULT,
         ROUTECOST=0,DGTSCRN=NULL,ACTNTERMATTMPT=NULL,
         BEARERCAP=SPEECH&3.1KHZ,ICPARAMDFLTPRFL=NULL,
         OGPARAMDFLTPRFL=NULL,ICPARAMSUPPRESSPRFL=NULL,
         OGPARAMSUPPRESSPRFL=NULL,FRAUDTRAPPRFL=NULL,
         USESWITCHID=N,ECHOCTRLNLP=Y,ECHOCTRLTYPE=G168,
         CUSTUSE1=NULL,CUSTVAR1=NULL,CUSTUSE2=NULL,
         CUSTVAR2=NULL,CUSTUSE3=NULL,CUSTVAR3=NULL,
         CUSTUSE4=NULL,CUSTVAR4=NULL,CUSTUSE5=NULL,
         CUSTVAR5=NULL,TXPAD=0DB,RXPAD=0DB,SIPPLUS=N,
         SIPHRTBTTMR=0,XFERIN=NULL,XFEROUT=NULL,
         REFERREPLACE=INVITE,CDNCNAM=N,
         XFERTODTMF=HFDIGITS,XFERPREFIX=NULL"
   ;
```

Related Commands: none

OPR-CCR

Command:

OPR-CCR: Operate Continuity Check Request

Description:

OPR-CCR lets the user conduct an outgoing continuity test on a specified trunk (cic) in a trunk group to return the test results and the cause if the test failed.

Category: Signaling **Security:** NSA

Input Format:

```
OPR-CCR:[TID]:<ss7TrkAid>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<ss7TrkAid>:<status>,[<cause>]"
;
```

Parameters:

ss7TrkAid Identifies the AID as a unique trunk associated with a trunk group number. The first number in the range identifies the trunk group number and the second number identifies the trunk.

Type: Ss7TrkAid
Range: {1-9999}-{0-16382}
Default value: none

status Identifies the result of the outgoing continuity test.

Type: enum
Range: FAILURE = The continuity test failed for the reason defined by the parameter *cause*.
SUCCESS = The test was successful both locally and remotely.
Default value: none

cause Identifies the reason that the continuity test failed when the value of *status* is “FAILURE”.

Type: enum
Range: “NO LPA RESPONSE FROM REMOTE SWITCH”
“LOCAL RESOURCE ALLOCATION FAILURE”
“TIMED OUT WAITING FOR RETURN TONE”
“CIRCUIT MUST BE MAINTENANCE BLOCKED AND IDLE”
Default value: none

Input Example:

```
OPR-CCR::1-4;
```

Output Example:

```
   lucent 2004-05-15 14:37:49
M  0 COMPLD
   "1-4:FAILURE,TIMED OUT WAITING FOR RETURN TONE"
;
```

Related Commands: none

OPR-CQM

Command:

OPR-CQM: Operate Circuit Query Message

Description:

OPR-CQM lets the user conduct a circuit query on a trunk group to show the state of the specified trunk(s) at the far end (i.e., the remote switch).

Category: Signaling **Security:** NSA

Input Format:

```
OPR-CQM:[TID]:<ss7TrkAid>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<ss7TrkAid>:<statusInfo>"
;
```

Parameters:

ss7TrkAid Identifies the AID as a unique trunk (or range of trunks) associated with a trunk group number. The first number in the range identifies the trunk group number and the second number identifies the trunk(s). A range of trunks is shown by the beginning and ending numbers separated by two ampersands and a hyphen (“&&-”). A range of up to 24 trunks can be retrieved using the range syntax.

Type: Ss7TrkAid
Range: {1-9999}-{0-16382}
Default value: none

statusInfo Identifies the state of the trunk.

Type: enum
Range: ACT = Active; no maintenance procedure on the trunk
LBLK = Locally blocked
LBLK&RBLK = Locally blocked and remotely blocked
RBLK = Remotely blocked
TRANS = Transient state
UEQ = Unequipped
Default value: none

Input Example:

```
OPR-CQM::1-2&&-4;
```

Output Example:

```
   lucent 2004-05-15 14:37:49
M  0 COMPLD
   "1-2:ACT"
   "1-3:ACT"
   "1-4:RBLK"
;
```

Related Commands: none

OPR-CVT

Command:

OPR-CVT: Operate Circuit Validation Test

Description:

OPR-CVT lets the user conduct an ISUP circuit validation test on a specified trunk (cic) in a trunk group to return the information contained in the response message (CVR) and validate the consistency of the returned information.

Category: Signaling **Security:** NSA

Input Format:

```
OPR-CVT:[TID]:<ss7TrkAid>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<ss7TrkAid>:<Status>,<cgCarrier>,<dblSeizeCtl>,
      <almCarrier>,<cotChkReq>,[<trunkNum>],
      [<CLLIoffA>],[<CLLIoffZ>],[<CLLI>],<cause>"
;
```

Parameters:

ss7TrkAid Identifies the AID as a unique trunk associated with a trunk group number. The first number in the range identifies the trunk group number and the second number identifies the trunk.

Type: Ss7TrkAid
Range: {1-9999}-{0-16382}
Default value: none

Status Identifies the result of the circuit validation test, which may not be the same as the value returned in the Circuit Validation Response Indicator parameter in the CVR. The CVR can indicate a successful test on the remote switch, but the test can still fail locally if either the dual seizure indicator or the trunk number returned in the CVR are inconsistent with the information stored for the cic in the switch database.

Type: enum
Range: FAILURE = The validity test failed for the reason defined by the parameter *cause*.
SUCCESS = The test was successful both locally and remotely
Default value: none

cgCarrier Identifies the value returned in the circuit group carrier indicator field of the Circuit Group Characteristics Indicator parameter in the CVR message.

Type: enum
Range: ANALOG = analog carrier
ANA_DIG = analog and digital carrier
DIGITAL = digital carrier
UNKNOWN = unknown carrier
Default value: none

dblSeizeCtl Identifies the value returned in the double seizing control indicator field of the Circuit Group Characteristics Indicator parameter in the CVR message.

Type: enum
Range: ALL
EVEN
ODD
NONE
Default value: none

almCarrier Identifies the value returned in the alarm carrier indicator field of the Circuit Group Characteristics Indicator parameter in the CVR message.

Type: enum
Range: HARDWARE
SOFTWARE
UNKNOWN
Default value: none

cotChkReq Identifies the value returned in the continuity check requirements indicator field of the Circuit Group Characteristics Indicator parameter in the CVR message.

Type: enum
Range: NONE
PERCALL
STATISTICAL
UNKNOWN
Default value: none

trunkNum Identifies the value returned in the trunk number field of the Circuit Identification Name parameter in the CVR message, but only when the CVR indicates a successful test on the remote switch.

Type: enum
Range: exactly four digits
Default value: none

CLLIoffA Identifies the value returned in the "CLLI code – office A" field of the Circuit Identification Name parameter in the CVR message, but only when the CVR indicates a successful test on the remote switch.

Type: enum
Range: exactly 11 ASCII characters
Default value: none

CLLIoffZ Identifies the value returned in the "CLLI code – office Z" field of the Circuit Identification Name parameter in the CVR message, but only when the CVR indicates a successful test on the remote switch.

Type: enum
Range: exactly 11 ASCII characters
Default value: none

CLLI Identifies the value returned in the CLLI Code parameter in the CVR message, but only when the CVR indicates a failed test on the remote switch.

Type: enum
Range: exactly 11 ASCII characters
Default value: none

cause Identifies the reason that the CVT test failed when the value of *Status* is “FAILURE”.

Type: enum
Range: “No response from remote switch.”
“Failure status received from remote switch”
“Inconsistent dual seizure indicator”
“Inconsistent trunk number”
Default value: none

Input Example:

```
OPR-CQM::1-4;
```

Output Example:

```
   lucent 2004-05-15 14:37:49
M  0 COMPLD
   "1-4:SUCCESS,ALLOC=ASCENDING,ALL,UNKNOWN,UNKNOWN,
      0001,0005MARLBOROUGH,0006MARLBOROUGH,,"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-DIGIT-SCREEN

Commands:

DLT-DIGIT-SCREEN: Delete Digit Screen

ED-DIGIT-SCREEN: Edit Digit Screen

ENT-DIGIT-SCREEN: Enter Digit Screen

RTRV-DIGIT-SCREEN: Retrieve Digit Screen

Descriptions:

Use screening for the following:

- Selectively authorizing calls, depending on call parameters
- Choosing translation plans based on call parameters
- Blocking calls and allowing calls to proceed
- Marking calls as fraud calls, for fraud processing
- Applying treatments to calls, as a step in call processing.

Screening can be a part of any action – at the InfoCollected or InfoAnalyzed PICs as part of a translation plan, during routing from route digits, or at a termination attempt from a trunk group. You can also use screening to prevent or allow calls originating on certain trunk groups from terminating to other trunk groups by applying a digit screen to the terminating trunk group (via the parameter *dgtScrn* in TRKGRP).

DLT-DIGIT-SCREEN lets the user delete a screening method.

ED-DIGIT-SCREEN lets the user change a screening method. Use this command to change the name of the digit screening database table; the parameter (primary key) to which the digit screening applies; the primary, secondary, and tertiary values applicable to the specified parameter; the action taken as a result of screening; the fraud trap profile; the treatment; the next screening operation performed; the authorization code prompt; the authorization code mode of operation; the length of the account code; the list containing the authorization code; and the translation plan used on a screening match.

ENT-DIGIT-SCREEN lets the user establish a screening method. Use this command to define the name of the digit screening database table; the parameter (primary key) to which the digit screening applies; the primary, secondary, and tertiary values applicable to the specified parameter; the action taken as a result of screening; the fraud trap profile; the treatment; the next screening operation performed; the authorization code prompt; the authorization code mode of operation; the length of the account code; the list containing the authorization code; and the translation plan used on a screening match.

RTRV-DIGIT-SCREEN lets the user retrieve the attributes of a screening method.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-DIGIT-SCREEN:[TID]:<digitScrnAid>:[CTAG];

ED-DIGIT-SCREEN:[TID]:<digitScrnAid>:[CTAG]::
   [RESULTTYPE=<resultType>],
   [FRAUDTRAPPRFL=<fraudTrapPrfl>],
   [TREATMENT=<treatment>],[DGTSCRNKEY=<dgtScrnKey>],
   [AUTHPROMPT=<authPrompt>],[AUTHMODE=<authMode>],
   [ACNTCODELEN=<acntCodeLen>],[AUTHLIST=<authList>],
   [TRANSPLAN=<transPlan>];

ENT-DIGIT-SCREEN:[TID]:<digitScrnAid>:[CTAG]::
   [RESULTTYPE=<resultType>],
   [FRAUDTRAPPRFL=<fraudTrapPrfl>],
   [TREATMENT=<treatment>],[DGTSCRNKEY=<dgtScrnKey>],
   [AUTHPROMPT=<authPrompt>],[AUTHMODE=<authMode>],
   [ACNTCODELEN=<acntCodeLen>],[AUTHLIST=<authList>],
   [TRANSPLAN=<transPlan>];

RTRV-DIGIT-SCREEN:[TID]:[<digitScrnAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
 "<digitScrnAid>:[CTAG]::RESULTTYPE=<resultType>,
    FRAUDTRAPPRFL=<fraudTrapPrfl>,
    TREATMENT=<treatment>,DGTSCRNKEY=<dgtScrnKey>,
    AUTHPROMPT=<authPrompt>,AUTHMODE=<authMode>,
    ACNTCODELEN=<acntCodeLen>,AUTHLIST=<authList>,
    TRANSPLAN=<transPlan>"
;
```

Parameters:

digitScrnAid Identifies the AID as a digit screening method. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all digit screening methods configured in the system will be returned.

Type: DgtScrnAid
Range: <dgtScrnLbl>[-<primKey>[-<primKeyValue>[-<secKeyValue>[-<terKeyValue>]]]], where:

dgtScrnLbl identifies the name of the applicable screening table with a string of 1-10 alphanumeric characters;

primKey (optional only in RTRV) identifies the primary key applicable to the specified screening table, with values of:

ABGN = Anchor Bearer Group Number (For some SIP referred calls, with our without replace, involving analysis of referred-to-number and subsequent routing, ABGN captures the ingress trunkgroup of the referred call.)
BGN = Bearer Group Number (interface type)
CALLTYPE = Type of call (Class 5)
CDPN = Called party number
CGPN = Calling party number
CHRGN = Charge number
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
CSI = Carrier Selection Information
GAP = Generic Address Parameter
GENDGTS = Generic Digits
JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
SUBSTATUS = Subscriber status (valid only when the value “SUB” is the first listed for the parameter *actnInfoAnlz* in TRANS-PLAN)
TNS = Transit Network Selection

primKeyValue identifies the primary value applicable to the specified primary key parameter, with values of:

ABGN (refer/replace type):
DEFAULT
LOCAL
NONE
NOTPRSNT
RMT

BGN:
CASIF

DEFAULT
GR303
ISDNIF
MGCP
TGN

CALLTYPE:
CUTTHRU
DEFAULT
DIR_ASSISTANCE
EMERGENCY
INTERLATA
INTERLATAOPREQ
INTNATNUM
INTNATOPREQ
INTRALATA
LOCALNUMBER
LOCALOPREQ
N11
NATNUM
NONUMOPREQ
NOTPRSNT
TOLLFREE

CDPN:
ABBREVPVT = abbreviated private
CAINVPN = Carrier AIN Virtual Private Network
DEFAULT = matches all numbers
INTNATNUM = international number
INTNATOPREQ = international operator request
NATNUM = national significant number
NATOPREQ = national (long-distance) operator request
NONUMCUTTHRU = no number provided, cut through to carrier
NONUMOPREQ = no number provided, operator request
NOTPRSNT = matches calls without a CDPN
SUBOPREQ = subscriber (local) operator request
SUBSNUM = subscriber number
TESTLINE = test line test code
UNKNOWN = unknown (default value);

CGPN:
ABBREVPVT = abbreviated private
DEFAULT = matches all numbers
NOTPRSNT = matches calls without a CGPN

NUNIINTNATNUM = non-unique international number
NUNINATNUM = non-unique national number (only for CGPN)
NUNISUBSNUM = non-unique subscriber number
TESTLINE = test line test code
UNIINTNATNUM = unique international number
UNINATNUM = unique national number
UNISUBSNUM = unique subscriber number

CHRGN:
CDPNATNUM = ANI of the called party; national number
CDPSUBSNUM = ANI of the called party; subscriber number
CDPUNAVAIL = ANI of the called party; no number present
CGPNATNUM = ANI of the calling party; national number
CGPSUBSNUM = ANI of the calling party; subscriber number
DEFAULT = matches all numbers
NOTPRSNT = matches calls without a CHRGN
UNAVAIL = ANI not available or not provided

CIP: 0-9999, DEFAULT, NOTPRSNT

CPC: 00-FF (hexadecimal) , DEFAULT, NOTPRSNT

CSI:
DEFAULT = matches all numbers
NOTPRESUB = not presubscribed and input by calling party
NOTPRSNT = matches calls without CSI
PRESUBDIAL = presubscribed and input by calling party
PRESUBNOTDIAL = presubscribed and not input by calling party
PRESUBUNKNOWN = presubscribed, input by calling party undetermined
UNKNOWN = no indication

GAP: 0-255 (mandatory)

GENDGTS: 0-31 (mandatory)

JIP: 200000-999999, DEFAULT, NOTPRSNT

LATA: 200-99999, DEFAULT, NOTPRSNT

OLI: 00-FF (hexadecimal), DEFAULT, NOTPRSNT

SUBSTATUS:
- ACTIVE = In Service (subscriber is present in the CL4SUB table and active)
- DEFAULT = matches all numbers
- INACTIVE = Out Of Service (subscriber is present in the CL4SUB table and inactive)
- NOTINDB = Not in database (subscriber is not in the CL4SUB table)
- NOTPRSNT = matches calls without SUBSTATUS

TNS: 0-9999 (the carrier ID), DEFAULT, NOTPRSNT

secKeyValue identifies the secondary value applicable to the specified primary key parameter, with values of:

ABGN (interface type):
- CASIF
- DEFAULT
- GR303
- ISDNIF
- MGCP
- TGN

BGN: 1-31 digits, DEFAULT

CALLTYPE: No secondary value

CDPN: 1-31 hexadecimal digits, DEFAULT (set *secKeyValue* to DEFAULT if *primKeyValue* is DEFAULT or NOTPRSNT)

CGPN: 1-31 hexadecimal digits, DEFAULT (set *secKeyValue* to DEFAULT if *primKeyValue* is DEFAULT or NOTPRSNT)

CHRGN: 1-31 digits, DEFAULT (set *secKeyValue* to DEFAULT if *primKeyValue* is DEFAULT or NOTPRSNT)

CIP: No secondary value

CPC: No secondary value

CSI: No secondary value

GAP: 1-31 hexadecimal digits, DEFAULT, NOTPRSNT

GENDGTS: 1-31 digits, DEFAULT, NOTPRSNT

JIP: No secondary value

LATA: No secondary value

OLI: No secondary value

SUBSTATUS: No secondary value

TNS: 0-199 (the CAS 0ZZ/1NX code or the ISUP circuit code), DEFAULT (set *secKeyValue* to DEFAULT if *primKeyValue* is DEFAULT or NOTPRSNT)

terKeyValue identifies the tertiary value (representing the protocol type) applicable only when the value of *primKey* is AGBN or TNS, with values of:

ABGN (interface or trunk group number):
CASIF: 1-2147483647
DEFAULT
GR303: 1-32767
ISDNIF: 1-2147483647
MGCP: 1-100000
TGN: 1-9999

TNS:
CAS
ISUP (default – set *terKeyValue* to ISUP if *secKeyValue* is DEFAULT)

Default value: none

resultType Identifies the action taken as a result of screening.

Type: enum
Range: AUTHCODE = Call must be authorized – can only be used if called from InfoAnalyze
FAIL= Call failed screening, will be disconnected
PASS = Call passed screening
SCREEN = More screening required
TRANS = Change translation plans during a screening step – only valid if the screening is called as an InfoCollected action
TREAT = Specified treatment will be performed
Default value: FAIL

fraudTrapPrfl Identifies the fraud trap profile used when screening encounters a fraud scenario.

Type: string
Range: 1-10 alphanumeric characters
Default value: NULL

treatment Identifies the treatment performed when the value of *resultType* is "TREAT".

Type: string
Range: 1-10 alphanumeric characters
Default value: NULL

dgtScrnKey Identifies the next screening operation performed by defining the applicable digit screening table and associated primary key. The parameter applies only when the value of *resultType* is "SCREEN".

Type: string
Range: <dgtScrnLbl>-<primKey>, where:

dgtScrnLbl identifies the name of the applicable screening table with a string of 1-10 characters;

primKey identifies the primary key applicable to the specified screening table, with values of:

ABGN = Anchor Bearer Group Number (For some SIP referred calls, with our without replace, involving analysis of referred-to-number and subsequent routing, ABGN captures the ingress trunkgroup of the referred call.)
BGN = Bearer Group Number (interface type)
CALLTYPE = type of call (Class 5)
CDPN = called party number
CGPN = calling party number
CHRGN = charge number
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
CSI = Carrier Selection Information
GAP-{0-255} = Generic Address Parameter
GENDGTS-{0-31} = Generic Digits
JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
SUBSTATUS = Subscriber status (valid only when the value "SUB" is the first listed for the parameter *actnInfoAnlz* in TRANS-PLAN)
TNS = Transit Network Selection

Default value: NULL

authPrompt Identifies the tone or announcement that prompts the caller to enter an authorization code. This parameter is not implemented presently; leave it blank.

Type: enum
Range: 350
400
ANNC = Announcement
Default value: ANNC

authMode Identifies the mode of operation for an authorization code required as a result of screening. The parameter applies only when the value of *resultType* is “AUTH”.

Type: enum
Range: ACNTAUTH = account codes and authorization codes
NONE = authorization code not required
ONEPIN = one PIN code per authorization code
ONLYACNT = only account codes
ONLYAUTH = only authorization codes
ONLYPIN = only PIN codes
Default value: NONE

acntCodeLen Identifies the account code length. The default value “0” disables the option; however, the value cannot be “0” when the value of *authMode* is “ACNTAUTH” or “ONLYACNT”.

Type: integer
Range: {0-16}
Default value: 0

authList Identifies the name of the authorization list, previously established via ENT-LIST-AUTHCODE. The value cannot be “NULL” when the value of *authMode* is “ACNTAUTH”, “ONEPIN”, “ONLYACNT”, or “ONLYPIN”.

Type: string
Range: up to 20 characters
Default value: NULL

transPlan Identifies the name of the translation plan, previously established via ENT-TRANS-PLAN, used on a screening match. The parameter applies only when the value of *resultType* is “TRANS”.

Type: string
Range: up to 10 characters
Default value: NULL

Input Examples:

```
DLT-DIGIT-SCREEN::LucentPbx-CGPN;

ED-DIGIT-SCREEN::LucentPbx-CGPN-ABBREVPVT-DEFAULT:::
   RESULTTYPE=SCREEN,FRAUDTRAPPRFL=INTNL;
```

Authorization required on all international calls from LucentPbx except to country code 92, which is considered fraud:

Step 1:

```
ENT-DIGIT-SCREEN::LucentPbx-CGPN-DEFAULT-508804:::
   RESULTTYPE=SCREEN,DGTSCRNKEY=LucentPbx-CDPN;
```

Step 2:

```
ENT-DIGIT-SCREEN::LucentPbx-CGPN-DEFAULT-5088040909:::
   RESULTTYPE=SCREEN,DGTSCRNKEY=LucentPbx-CDPN;
```

Step 3:

```
ENT-DIGIT-SCREEN::LucentPbx-CDPN-INTNATNUM-DEFAULT:::
   RESULTTYPE=AUTHCODE,AUTHMODE=ONLYPIN,
   AUTHLIST=LucentAuth;
```

Or

```
ENT-DIGIT-SCREEN::LucentPbx-CDPN-INTNATNUM:::
   RESULTTYPE=AUTHCODE,AUTHMODE=ONLYPIN,
   AUTHLIST=LucentAuth;
```

Step 4:

```
ENT-DIGIT-SCREEN::LucentPbx-CDPN-INTNATNUM-92:::
   RESULTTYPE=FAIL,FRAUDTRAPPRFL=intnl,
   TREATMENT=CALLREJECT;

RTRV-DIGIT-SCREEN::LucentPbx-CGPN;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "LucentPbx-CGPN-DEFAULT-5088040909:
      RESULTTYPE=FAIL,FRAUDTRAPPRFL=intnl,
      TREATMENT=CALLREJECT,DGTSCRNKEY=LucentPbx-CDPN,
      AUTHPROMPT=ANNC,AUTHMODE=ONLYPIN,ACNTCODELEN=0,
      AUTHLIST=LucentAuth,TRANSPLAN=NULL"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-DIGITMOD-DN

Commands:

DLT-DIGITMOD-DN: Delete Digit Modification DN

ED-DIGITMOD-DN: Edit Digit Modification DN

ENT-DIGITMOD-DN: Enter Digit Modification DN

RTRV-DIGITMOD-DN: Retrieve Digit Modification DN

Descriptions:

DLT-DIGITMOD-DN lets the user delete a digit modification object keyed for any of the DNs (Directory Numbers) that are part of the call parameters (called party number, calling party number, charge number).

ED-DIGITMOD-DN lets the user change a digit modification object keyed for any of the DNs (Directory Numbers) that are part of the call parameters (called party number, calling party number, charge number). Use this command to change the digits to modify; the nature of address indicator applicable to the specified digit string; the type of modification; how to strip or insert digits, an alternate parameter to modify, and the digit modification to call next.

ENT-DIGITMOD-DN lets the user establish a digit modification object keyed for any of the DNs (Directory Numbers) that are part of the call parameters (called party number, calling party number, charge number). Use this command to define the name of the digit modification; whether the digit modification applies to called party, calling party or charge numbers; the digits to modify; the nature of address indicator applicable to the specified digit string; the type of modification; how to strip or insert digits, an alternate parameter to modify, and the digit modification to call next.

RTRV-DIGITMOD-DN lets the user retrieve the attributes of a digit modification object keyed for any of the DNs (Directory Numbers) that are part of the call parameters (called party number, calling party number, charge number).

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-DIGITMOD-DN:[TID]:<digitModDnAid>:[CTAG];

ED-DIGITMOD-DN:[TID]:<digitModDnAid>:[CTAG]::
   [MODTYPE=<modtype>],[ALTMODTYPE=<altmodtype>],
   [MAXDGTS=<maxdgts>],[STRIPDIRN=<stripdirn],
   [STRIPPOS=<strippos>],[STRIPDGTS=<stripdgts>],
   [STRIPDEST=<stripdest>],[INSERTDIRN=<insertdirn>],
   [INSERTPOS=<insertpos>],[INSERTDGTS=<insertdgts>],
   [INSERTSRC=<insertsrc>],[NEWNAI=<newnai>],
   [ALTPARAMVALUE=<altparamvalue>],
   [NEXTDGTMODKEY=<nextdgtmodkey>];

ENT-DIGITMOD-DN:[TID]:<digitModDnAid>:[CTAG]::
   [MODTYPE=<modtype>],[ALTMODTYPE=<altmodtype>],
   [MAXDGTS=<maxdgts>],[STRIPDIRN=<stripdirn],
   [STRIPPOS=<strippos>],[STRIPDGTS=<stripdgts>],
   [STRIPDEST=<stripdest>],[INSERTDIRN=<insertdirn>],
   [INSERTPOS=<insertpos>],[INSERTDGTS=<insertdgts>],
   [INSERTSRC=<insertsrc>],[NEWNAI=<newnai>],
   [ALTPARAMVALUE=<altparamvalue>],
   [NEXTDGTMODKEY=<nextdgtmodkey>];

RTRV-DIGITMOD-DN:[TID]:[<digitModDnAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<digitModDnAid>:MODTYPE=<modtype>,
      ALTMODTYPE=<altmodtype>,MAXDGTS=<maxdgts>,
      STRIPDIRN=<stripdirn>,STRIPPOS=<strippos>,
      STRIPDGTS=<stripdgts>,STRIPDEST=<stripdest>,
      INSERTDIRN=<insertdirn>,INSERTPOS=<insertpos>,
      INSERTDGTS=<insertdgts>,INSERTSRC=<insertsrc>,
      NEWNAI=<newnai>,ALTPARAMVALUE=<altparamvalue>,
      NEXTDGTMODKEY=<nextdgtmodkey>"
;
```

Parameters:

digitModDnAid Identifies the AID as a digit modification object keyed for a DN. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all DN-keyed digit modification objects configured in the system will be returned.

Type: DigitModDnAid

Range: <dmLbl>[-<dnType>[-<nai>[-<digits>[-<minDgts>]]]], where:

dmLbl identifies the name of the applicable digit modification table with a string of 1-10 alphanumeric characters;

dnType (optional only in RTRV) identifies the primary key as the type of DN applicable to the specified digit modification table, with values of:

CDPN = called party number
CGPN = calling party number
CHRGN = charge number

nai identifies the nature of address indicator applicable to the specified type of DN, with a default of “DEFAULT” and values of:

ABBREVPVT = abbreviated private (only for CDPN and CGPN)
CAINVPN = Carrier AIN Virtual Private Network (only for CDPN)
CDPNATNUM = ANI of the called party; national number (only for CHRGN)
CDPSUBSNUM = ANI of the called party; subscriber number (only for CHRGN)
CDPUNAVAIL = ANI of the called party; no number present (only for CHRGN)
CGPNATNUM = ANI of the calling party; national number (only for CHRGN)
CGPSUBSNUM = ANI of the calling party; subscriber number (only for CHRGN)
DEFAULT = matches all numbers
INTNATNUM = international number (only for CDPN)
INTNATOPREQ = international operator request (only for CDPN)
NATNUM = national significant number (only for CDPN)
NATOPREQ = national (long-distance) operator request (only for CDPN)

NONUMCUTTHRU = no number provided, cut through to carrier (only for CDPN)
NONUMOPREQ = no number provided, operator request (only for CDPN)
NOTPRSNT = matches calls without a CGPN, CDPN, or CHRGN
NUNIINTNATNUM = non-unique international number (only for CGPN)
NUNINATNUM = non-unique national number (only for CGPN)
NUNISUBSNUM = non-unique subscriber number (only for CGPN)
SUBOPREQ = subscriber (local) operator request (only for CDPN)
SUBSNUM = subscriber number (only for CDPN)
TESTLINE = test line test code (only for CGPN and CDPN)
UNAVAIL = ANI not available or not provided (only for CHRGN)
UNIINTNATNUM = unique international number (only for CGPN)
UNINATNUM = unique national number (only for CGPN)
UNISUBSNUM = unique subscriber number (only for CGPN)
UNKNOWN = unknown (only for CDPN);

digits identifies the leading digits of the number to be matched as a string of up to 31 digits (hexadecimal digits for called or calling party numbers) with a default of "DEFAULT";

minDgts identifies the minimum allowable length of the incoming addressing digits as an integer from 0-30 with a default of 0.

Default value: none

modtype Identifies the type of digit modification.

Type: enum
Range: DELETE = removes the parameter
INSERTDGTS = insert the digits specified by *insertDgts*
INSERTSRC = insert digits from the specified source
NOACTION = no action taken
REPLACEDGTS = replaces digits with those specified by the *insertDgts* parameter
REPLACENAI = replaces NAI with that specified by the *newNai* parameter
STRIPINSERTDGTS = removes the number of digits specified by *stripDgts* and inserts the digits specified by *insertDgts*
STRIPINSERTSRC = removes the number of digits specified by *stripDgts* and inserts the digits from the specified source
STRIPONLY = removes the number of digits specified by the *stripDgts* parameter
Default value: NOACTION

altmodtype Identifies the type of digit modification for the alternate parameter.

Type: enum
Range: DELETE = removes the alternate parameter
NOACTION = no action taken
REPLACE = assigns a value, specified by *altParamValue*, to the alternate parameter
Default value: NOACTION

maxdgts Identifies the maximum allowable length of the incoming addressing digits.

Type: integer
Range: {1-31}
Default value: 31

stripdirn Identifies the direction, relative to the first or last digit in the string, of the position in the digit string where stripping begins.

Type: enum
Range: LEFT = starts at the first digit in the string, moves right
RIGHT = starts at the last digit in the string, moves left
Default value: LEFT

strippos Identifies the position in the digit string where stripping begins. The value cannot be "0" when the modification involves digit stripping.

Type: integer
Range: {0-31}
Default value: 1

stripdgts Identifies the number of digits to strip. The value cannot be "0" when the modification involves digit stripping.

Type: integer
Range: {0-31}
Default value: 0

stripdest Identifies a parameter or register for storing the stripped digits. REG-{1-6} are scratchpad registers for holding digits during a translation. These registers are only valid during one call translation; that is, they cannot be passed from one call to another.

Type: enum
Range: CPC = Calling Party Category parameter
OLI = Originating Line Information parameter
REG-1 = scratchpad register 1
REG-2 = scratchpad register 2
REG-3 = scratchpad register 3
REG-4 = scratchpad register 4
REG-5 = scratchpad register 5
REG-6 = scratchpad register 6
Default value: NULL

insertdirn Identifies the direction, relative to the first or last digit in the string, of the position in the digit string where digit insertion begins.

Type: enum
Range: LEFT = starts at the first digit in the string, moves right
RIGHT = starts at the last digit in the string, moves left
Default value: LEFT

insertpos Identifies the position in the digit string where digit insertion begins. The value cannot be "0" when the modification involves digit insertion.

Type: integer
Range: {0-31}
Default value: 1

insertdgts Identifies the digits to insert. The value cannot be "NULL" when the modification involves digit insertion.

Type: string
Range: 1-31 digits
Default value: NULL

insertsrc Identifies a parameter or register as the source of the inserted digits. REG-{1-6} are scratchpad registers for holding digits during a translation. These registers are only valid during one call translation; that is, they cannot be passed from one call to another.

Type: enum
Range: COUNTRY = Country code
CPC = Calling Party Category parameter
OLI = Originating Line Information parameter
REG-1 = scratchpad register 1
REG-2 = scratchpad register 2
REG-3 = scratchpad register 3
REG-4 = scratchpad register 4
REG-5 = scratchpad register 5
REG-6 = scratchpad register 6
Default value: NULL

newnai Identifies a new nature of address indicator replacing the nature of address indicator applicable to the digit string specified in the AID.

Type: enum
Range: ABBREVPVT = abbreviated private numbering plan (only for CDPN and CGPN)
CDPNATNUM = ANI of the called party; national number (only for CHRGN)
CDPSUBSNUM = ANI of the called party; subscriber number (only for CHRGN)
CDPUNAVAIL = ANI of the called party; no number present (only for CHRGN)
CGPNATNUM = ANI of the calling party; national number (only for CHRGN)
CGPSUBSNUM = ANI of the calling party; subscriber number (only for CHRGN)
DEFAULT = matches all numbers
INTNATNUM = international number (only for CDPN)
INTNATOPREQ = international operator request (only for CDPN)
NATNUM = national significant number (only for CDPN)
NATOPREQ = national (long-distance) operator request (only for CDPN)

NONUMCUTTHRU = no number provided, cut through to carrier (only for CDPN)
NONUMOPREQ = no number provided, operator request (only for CDPN)
NOTPRSNT = matches calls without a CGPN, CDPN, or CHRGN
NUNIINTNATNUM = non-unique international number (only for CGPN)
NUNINATNUM = non-unique national number (only for CGPN)
NUNISUBSNUM = non-unique subscriber number (only for CGPN)
SUBOPREQ = subscriber (local) operator request (only for CDPN)
SUBSNUM = subscriber number (only for CDPN)
TESTLINE = test line test code (only for CGPN and CDPN)
UNAVAIL = ANI not available or not provided (only for CHRGN)
UNIINTNATNUM = unique international number (only for CGPN)
UNINATNUM = unique national number (only for CGPN)
UNISUBSNUM = unique subscriber number (only for CGPN)
UNKNOWN = unknown numbering plan (only for CDPN)

Default value: NULL

altparamvalue Identifies a parameter and associated value that act as an alternate key. This is a way of changing a non-key parameter on a match on the key field (*dnType* in the AID).

Type: string

Range: <altParam>[-<altValue>], where:

altParam identifies the name of the applicable non-key parameter, with values of:

CIP = Carrier Information Parameter
CPC = Calling Party Category
CSI = Carrier Selection Information
OLI = Originating Line Information
TNS = Transit Network Selection

altValue identifies, when the value of *altModType* is "NOACTION" or "REPLACE" (leave blank when *altModType* is "DELETE"), the new value applicable to the specified non-key parameter, with values of:

CIP: 0-9999
CPC: 00-FF (hexadecimal)
CSI:
PRESUBDIAL = presubscribed and input by calling party
PRESUBNOTDIAL = presubscribed and not input by calling party
PRESUBUNKNOWN = presubscribed, input by calling party undetermined
NOTPRESUB = not presubscribed and input by calling party
UNKNOWN = no indication
OLI: 00-FF (hexadecimal)
TNS: {0-9999}-{0-255} (denotes a carrier and either a CAS 0ZZ/1NX code or an ISUP circuit code)

Default value: NULL

nextdgtmodkey Identifies the digit modification table and associated primary key to call next. This is a way of changing a non-key parameter on a match on the key field (*dnType* in the AID).

Type: string
Range: <dmLbl>-<primKey>, where:

dmLbl identifies the name of the applicable digit modification table with a string of 1-10 characters;

primKey identifies the primary key applicable to the specified digit modification table, with values of:

CALLTYPE = type of call (Class 5)
CDPN = called party number
CGPN = calling party number
CHRGN = charge number
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
CSI = Carrier Selection Information
GAP-{0-255} = Generic Address Parameter
GENDGTS-{0-31} = Generic Digits
GP-{0-255} = Generic Parameter
JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
REG-{1-6} = Register index
TNS = Transit Network Selection

Default value: NULL

Input Examples:

```
DLT-DIGITMOD-DN::LucentPbx-CGPN;

ED-DIGITMOD-DN::LucentPbx-CGPN-ABBREVPVT-DEFAULT:::
   MODTYPE=INSERTDGTS,ALTMODTYPE=REPLACE,
   INSERTDIRN=LEFT,INSERTPOS=1,INSERTDGTS=508804,
   NEWNAI=UNINATNUM,ALTPARAMVALUE=CPC-00;
```

Incoming DM, remove 011 and mark numbers international:

```
ENT-DIGITMOD-DN::MkIntnl-CDPN-unknown-011-10:::
   MODTYPE=STRIPONLY,STRIPDIRN=LEFT,STRIPPOS=1,
   STRIPDGTS=3,NEWNAI=INTNATNUM;
```

Incoming DM, add six digits to LUCENT calling numbers, set CPC:

```
ENT-DIGITMOD-DN::LucentPbx-CGPN-ABBREVPVT-DEFAULT:::
   MODTYPE=INSERTDGTS,ALTMODTYPE=REPLACE,
   INSERTDIRN=LEFT,INSERTPOS=1,INSERTDGTS=508804,
   NEWNAI=UNINATNUM,ALTPARAMVALUE=CPC-00;

RTRV-DIGITMOD-DN::MkIntnl-CDPN-unknown-011-10;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "MkIntnl-CDPN-unknown-011-10:MODTYPE=STRIPONLY,
      ALTMODTYPE=NOACTION,MAXDGTS=31,STRIPDIRN=LEFT,
      STRIPPOS=1,STRIPDGTS=3,STRIPDEST=NULL,
      INSERTDIRN=LEFT,INSERTPOS=0,INSERTDGTS=NULL,
      INSERTSRC=NULL,NEWNAI=INTNATNUM,
      ALTPARAMVALUE=NULL,NEXTDGTMODKEY=NULL"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-DIGITMOD-GEN

Commands:

DLT-DIGITMOD-GEN: Delete Digit Modification Generic

ED-DIGITMOD-GEN: Edit Digit Modification Generic

ENT-DIGITMOD-GEN: Enter Digit Modification Generic

RTRV-DIGITMOD-GEN: Retrieve Digit Modification Generic

Descriptions:

DLT-DIGITMOD-GEN lets the user delete a digit modification object keyed for generic digits or generic address parameters.

ED-DIGITMOD-GEN lets the user change a digit modification object keyed for generic digits or generic address parameters. Use this command to change the numeric value representing the type of generic digits or generic address parameters, the leading digits of the number to match, the type of modification, the type of modification for an alternate parameter, how to strip or insert digits, an alternate parameter to modify, and the digit modification to call next.

ENT-DIGITMOD-GEN lets the user establish a digit modification object keyed for generic digits or generic address parameters. Generic digits are digit strings that represent various Advanced Intelligent Network (AIN) functions; for example, the value “01” means “Authorization Code”. Generic address parameters are digit strings that represent various network entities; for example, the value “00” means “Directory Number”. Use this command to define the name of the digit modification, whether the digit modification applies to generic digits or generic address parameters, the numeric value representing the type of generic digits or generic address parameters, the leading digits of the number to match, the type of modification, the type of modification for an alternate parameter, how to strip or insert digits, an alternate parameter to modify, and the digit modification to call next.

RTRV-DIGITMOD-GEN lets the user retrieve the attributes of a digit modification object keyed for generic digits or generic address parameters.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-DIGITMOD-GEN:[TID]:<digitModGenAid>:[CTAG];

ED-DIGITMOD-GEN:[TID]:<digitModGenAid>:[CTAG]::
   [MODTYPE=<modtype>],[ALTMODTYPE=<altmodtype>],
   [STRIPDIRN=<stripdirn],[STRIPPOS=<strippos>],
   [STRIPDGTS=<stripdgts>][STRIPDEST=<stripdest>],
   [INSERTDIRN=<insertdirn>],[INSERTPOS=<insertpos>],
   [INSERTDGTS=<insertdgts>],[INSERTSRC=<insertsrc>],
   [ALTPARAMVALUE=<altparamvalue>],
   [NEXTDGTMODKEY=<nextdgtmodkey>];

ENT-DIGITMOD-GEN:[TID]:<digitModGenAid>:[CTAG]::
   [MODTYPE=<modtype>],[ALTMODTYPE=<altmodtype>],
   [STRIPDIRN=<stripdirn],[STRIPPOS=<strippos>],
   [STRIPDGTS=<stripdgts>][STRIPDEST=<stripdest>],
   [INSERTDIRN=<insertdirn>],[INSERTPOS=<insertpos>],
   [INSERTDGTS=<insertdgts>],[INSERTSRC=<insertsrc>],
   [ALTPARAMVALUE=<altparamvalue>],
   [NEXTDGTMODKEY=<nextdgtmodkey>];

RTRV-DIGITMOD-GEN:[TID]:[<digitModGenAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<digitModGenAid>:MODTYPE=<modtype>,
      ALTMODTYPE=<altmodtype>,STRIPDIRN=<stripdirn>,
      STRIPPOS=<strippos>,STRIPDGTS=<stripdgts>,
      STRIPDEST=<stripdest>,INSERTDIRN=<insertdirn>,
      INSERTPOS=<insertpos>,INSERTDGTS=<insertdgts>,
      INSERTSRC=<insertsrc>,
      ALTPARAMVALUE=<altparamvalue>,
      NEXTDGTMODKEY=<nextdgtmodkey>"
;
```

Parameters:

digitModGenAid Identifies the AID as a digit modification object keyed for generic digits or generic address parameters. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all digit modification objects keyed to generic digits or generic address parameters will be returned.

Type: DigitModGenAid

Range: <dmLbl>[-<genType>[-<nmbrType>[-<digits>]]], where:

dmLbl identifies the name of the applicable digit modification table with a string of 1-10 characters;

genType (optional only in RTRV) identifies the primary key that applies to the specified digit modification table as either a generic address parameter or generic digits or a (user-defined) generic parameter, with values of:

GAP = generic address parameter
GENDGTS = generic digits
GP = generic parameter

nmbrType (optional only in RTRV) identifies the numeric value representing the type of generic digits or generic address parameters, with values of:

0-255 for GAP
0-31 for GENDGTS
0-255 for GP

digits identifies the leading digits of the number to be matched as a string of 1-31 digits (hexadecimal digits when the value of *genType* is “GAP”) with a default of “DEFAULT”. When the value of *genType-nmbrType* is “GENDGTS-9”, the value of *digits* is a string of either three or eight digits. When the value is three digits, the range is {000-127}. When the value is eight digits, the range for the first three digits is {000-127} and the range for the last five digits is {00000-16383}. When the value of *genType-nmbrType* is “GP-195”, the value of *digits* is a string of eight digits.

Default value: none

modtype Identifies the type of digit modification.

Type: enum
Range: DELETE = removes the parameter
INSERTDGTS = insert the digits specified by *insertDgts*
INSERTSRC = insert digits from the specified source
NOACTION = no action taken
REPLACEDGTS = replaces digits with those specified by the *insertDgts* parameter
STRIPINSERTDGTS = removes the number of digits specified by *stripDgts* and inserts the digits specified by *insertDgts*
STRIPINSERTSRC = removes the number of digits specified by *stripDgts* and inserts the digits from the specified source
STRIPONLY = removes the number of digits specified by the *stripDgts* parameter
Default value: NOACTION

altmodtype Identifies the type of digit modification for the alternate parameter.

Type: enum
Range: DELETE = removes the alternate parameter
NOACTION = no action taken
REPLACE = assigns a value, specified by *altParamValue*, to the alternate parameter
Default value: NOACTION

stripdirn Identifies the direction, relative to the first or last digit in the string, of the position in the digit string where stripping begins.

Type: enum
Range: LEFT = starts at the first digit in the string, moves right
RIGHT = starts at the last digit in the string, moves left
Default value: LEFT

strippos Identifies the position in the digit string where stripping begins. The value cannot be “0” when the modification involves digit stripping.

Type: integer
Range: {0-31}
Default value: 1

stripdgts Identifies the number of digits to strip. The value cannot be “0” when the modification involves digit stripping.

Type: integer
Range: {0-31}
Default value: 0

stripdest Identifies a parameter or register for storing the stripped digits. REG-{1-6} are scratchpad registers for holding digits during a translation. These registers are only valid during one call translation; that is, they cannot be passed from one call to another.

Type: enum
Range: CPC = Calling Party Category parameter
OLI = Originating Line Information parameter
REG-1 = scratchpad register 1
REG-2 = scratchpad register 2
REG-3 = scratchpad register 3
REG-4 = scratchpad register 4
REG-5 = scratchpad register 5
REG-6 = scratchpad register 6
Default value: NULL

insertdirn Identifies the direction, relative to the first or last digit in the string, of the position in the digit string where digit insertion begins.

Type: enum
Range: LEFT = starts at the first digit in the string, moves right
RIGHT = starts at the last digit in the string, moves left
Default value: LEFT

insertpos Identifies the position in the digit string where digit insertion begins. The value cannot be “0” when the modification involves digit insertion.

Type: integer
Range: {0-31}
Default value: 1

insertdgts Identifies the digits to insert. The value cannot be “NULL” when the modification involves digit insertion.

Type: string
Range: 1-31 digits
Default value: NULL

insertsrc Identifies a parameter or register as the source of the inserted digits. REG-{1-6} are scratchpad registers for holding digits during a translation. These registers are only valid during one call translation; that is, they cannot be passed from one call to another.

Type: enum

Range: COUNTRY = country code
CPC = Calling Party Category parameter
OLI = Originating Line Information parameter
REG-1 = scratchpad register 1
REG-2 = scratchpad register 2
REG-3 = scratchpad register 3
REG-4 = scratchpad register 4
REG-5 = scratchpad register 5
REG-6 = scratchpad register 6

Default value: NULL

altparamvalue Identifies a parameter and associated value that act as an alternate key. This is a way of changing a non-key parameter on a match on the key field (*dnType* in the AID).

Type: string

Range: <altParam>-<altValue>, where:

altParam identifies the name of the applicable non-key parameter, with values of:

- CIP = Carrier Information Parameter
- CPC = Calling Party Category
- CSI = Carrier Selection Information
- OLI = Originating Line Information
- TNS = Transit Network Selection

altValue identifies, when the value of *altModType* is "NOACTION" or "REPLACE" (leave blank when the value of altModType is "DELETE"), the new value applicable to the specified non-key parameter, with values of:

- CIP: 0-9999
- CPC: 00-FF (hexadecimal)
- CSI:
  - PRESUBDIAL = presubscribed and input by calling party
  - PRESUBNOTDIAL = presubscribed and not input by calling party
  - PRESUBUNKNOWN = presubscribed, input by calling party undetermined
  - NOTPRESUB = not presubscribed and input by calling party
  - UNKNOWN = no indication
- OLI: 00-FF (hexadecimal)
- TNS: {0-9999}-{0-255} (denotes a carrier and either a CAS 0ZZ/1NX code or an ISUP circuit code)

Default value: NULL

nextdgtmodkey Identifies the digit modification table and associated primary key to call next. This is a way of changing a non-key parameter on a match on the key field (*genType* in the AID).

Type: string
Range: <dmLbl>-<primKey>, where:

dmLbl identifies the name of the applicable digit modification table with a string of 1-10 alphanumeric characters;

primKey identifies the primary key applicable to the specified digit modification table, with values of:

CALLTYPE = type of call (Class 5)
CDPN = called party number
CGPN = calling party number
CHRGN = charge number
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
CSI = Carrier Selection Information
GAP-{0-255} = Generic Address Parameter
GENDGTS-{0-31} = Generic Digits
GP-{0-255} = Generic Parameter
JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
REG-{1-6} = Register index
TNS = Transit Network Selection

Default value: NULL

Input Examples:

```
DLT-DIGITMOD-GEN::LucentPbx-GENDGTS-01-1234;
```

```
ED-DIGITMOD-GEN::LucentPbx-GENDGTS-01-1234:::
   MODTYPE=INSERTDGTS,ALTMODTYPE=REPLACE,
   INSERTDIRN=LEFT,INSERTPOS=1,INSERTDGTS=508804,
   ALTPARAMVALUE=CPC-00;
```

```
ENT-DIGITMOD-GEN::LucentPbx-GENDGTS-01-1234:::
   MODTYPE=INSERTDGTS,ALTMODTYPE=REPLACE,
   INSERTDIRN=LEFT,INSERTPOS=1,INSERTDGTS=508804,
   ALTPARAMVALUE=CPC-00;
```

```
RTRV-DIGITMOD-GEN::LucentPbx-GENDGTS-01-1234;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "LucentPbx-GENDGTS-01-1234:MODTYPE=INSERTDGTS,
      ALTMODTYPE=REPLACE,STRIPDIRN=LEFT,STRIPPOS=1,
      STRIPDGTS=3,STRIPDEST=NULL,INSERTDIRN=LEFT,
      INSERTPOS=0,INSERTDGTS=NULL,INSERTSRC=NULL,
      NEWNAI=INTNATNUM,ALTPARAMVALUE=NULL,
      NEXTDGTMODKEY=NULL"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-DIGITMOD-PARAM

Commands:

DLT-DIGITMOD-PARAM: Delete Digit Modification Parameter

ED-DIGITMOD-PARAM: Edit Digit Modification Parameter

ENT-DIGITMOD-PARAM: Enter Digit Modification Parameter

RTRV-DIGITMOD-PARAM: Retrieve Digit Modification Parameter

Descriptions:

DLT-DIGITMOD-PARAM lets the user delete a digit modification object keyed to a call parameter.

ED-DIGITMOD-PARAM lets the user change a digit modification object keyed to a call parameter. Use this command to change the value applicable to the specified parameter, the type of modification, the type of modification for an alternate parameter, the new value for the parameter, the alternate parameter to modify, and the digit modification to call next.

ENT-DIGITMOD-PARAM lets the user establish a digit modification object keyed to a call parameter. Use this command to define the digit modification name, the parameter to which the digit modification applies, the value applicable to the specified parameter, the type of modification, the type of modification for an alternate parameter, the new value for the parameter, an alternate parameter to modify, and the digit modification to call next.

RTRV-DIGITMOD-PARAM lets the user retrieve the attributes of a digit modification object keyed to a call parameter.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-DIGITMOD-PARAM:[TID]:<digitModParamAid>:[CTAG];

ED-DIGITMOD-PARAM:[TID]:<digitModParamAid>:[CTAG]::
   [MODTYPE=<modtype>],[ALTMODTYPE=<altmodtype>],
   [NEWVALUE=<newvalue>],
   [ALTPARAMVALUE=<altparamvalue>],
   [NEXTDGTMODKEY=<nextdgtmodkey>];

ENT-DIGITMOD-PARAM:[TID]:<digitModParamAid>:[CTAG]::
   [MODTYPE=<modtype>],[ALTMODTYPE=<altmodtype>],
   [NEWVALUE=<newvalue>],
   [ALTPARAMVALUE=<altparamvalue>],
   [NEXTDGTMODKEY=<nextdgtmodkey>];

RTRV-DIGITMOD-PARAM:[TID]:[<digitModParamAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<digitModParamAid>:MODTYPE=<modtype>,
      ALTMODTYPE=<altmodtype>,NEWVALUE=<newvalue>,
      ALTPARAMVALUE=<altparamvalue>,
      NEXTDGTMODKEY=<nextdgtmodkey>"
;
```

Parameters:

digitModParamAid Identifies the AID as a digit modification object keyed to a call parameter. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all digit modification objects keyed to a call parameter will be returned.

Type: DigitModParamAid
Range: <dmLbl>[-<primKey>[-<value>]],
where:

dmLbl identifies the name of the applicable digit modification table with a string of 1-10 alphanumeric characters;

primKey (optional only in RTRV) identifies the primary key applicable to the specified digit modification table as a type of call parameter, with values of:
CALLTYPE = type of call (Class 5)
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
CSI = Carrier Selection Information
JIP = Jurisdiction Information Parameter (NPANXX)

LATA = Local Access & Transport Area
OLI = Originating Line Information

value identifies the value applicable to the specified parameter, with values of:

CALLTYPE:
- CUTTHRU
- DEFAULT
- DIR_ASSISTANCE
- EMERGENCY
- INTERLATA
- INTERLATAOPREQ
- INTNATNUM
- INTNATOPREQ
- INTRALATA
- LOCALNUMBER
- LOCALOPREQ
- N11
- NATNUM
- NONUMOPREQ
- NOTPRSNT
- TOLLFREE

CIP: 0-9999, DEFAULT, NOTPRSNT
CPC: 00-FF (hexadecimal) , DEFAULT, NOTPRSNT
CSI:
- DEFAULT = matches all numbers
- NOTPRESUB = not presubscribed and input by calling party
- NOTPRSNT = matches calls without CSI
- PRESUBDIAL = presubscribed and input by calling party
- PRESUBNOTDIAL = presubscribed and not input by calling party
- PRESUBUNKNOWN = presubscribed, input by calling party undetermined
- UNKNOWN = no indication

JIP: 200000-999999, DEFAULT, NOTPRSNT
LATA: 200-99999, DEFAULT, NOTPRSNT
OLI: 00-FF (hexadecimal), DEFAULT, NOTPRSNT

Default value: none

modtype Identifies the type of digit modification.

Type: enum
Range: DELETE = removes the parameter
NOACTION = no action taken
REPLACE = assigns a value, specified by *altParamValue*, to the parameter
Default value: NOACTION

altmodtype Identifies the type of digit modification for the alternate parameter.

Type: enum
Range: DELETE = removes the alternate parameter
NOACTION = no action taken
REPLACE = assigns a value, specified by *altParamValue*, to the alternate parameter
Default value: NOACTION

newvalue Identifies the new value applicable to the specified parameter. The value cannot be specified when the value of *primKey* is CALLTYPE. The value cannot be NULL when the value of *modType* is REPLACE.

Type: string
Range: CIP: 0-9999, DEFAULT, NOTPRSNT
CPC: 00-FF (hexadecimal) , DEFAULT, NOTPRSNT
JIP: 200000-999999, DEFAULT, NOTPRSNT
LATA: 200-99999, DEFAULT, NOTPRSNT
OLI: 00-FF (hexadecimal), DEFAULT, NOTPRSNT
Default value: NULL

altparamvalue Identifies a parameter and associated value that act as an alternate key. This is a way of changing a non-key parameter (that is, the alternate key cannot be the same as the AID's primary key) on a match on the key field (*dnType* in the AID).

Type: string

Range: <altParam>-<altValue>, where:

altParam identifies the name of the applicable non-key parameter, with values of:

CIP = Carrier Information Parameter
CPC = Calling Party Category
CSI = Carrier Selection Information
OLI = Originating Line Information
TNS = Transit Network Selection

altValue identifies, when the value of *altModType* is "NOACTION" or "REPLACE" (leave blank when the value of altModType is "DELETE"), the new value applicable to the specified non-key parameter, with values of:

CIP: 0-9999
CPC: 00-FF (hexadecimal)
CSI:
PRESUBDIAL = presubscribed and input by calling party
PRESUBNOTDIAL = presubscribed and not input by calling party
PRESUBUNKNOWN = presubscribed, input by calling party undetermined
NOTPRESUB = not presubscribed and input by calling party
UNKNOWN = no indication
OLI: 00-FF (hexadecimal)
TNS: {0-9999}-{0-255} (denotes a carrier and either a CAS 0ZZ/1NX code or an ISUP circuit code)

Default value: NULL

nextdgtmodkey Identifies the digit modification table and associated primary key to call next. This is a way of changing a non-key parameter on a match on the key field (*primKey* in the AID).

Type: string
Range: <dmLbl>-<primKey>, where:

dmLbl identifies the name of the applicable digit modification table with a string of 1-10 alphanumeric characters;

primKey identifies the primary key applicable to the specified digit modification table, with values of:

CALLTYPE = type of call (Class 5)
CDPN = called party number
CGPN = calling party number
CHRGN = charge number
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
CSI = Carrier Selection Information
GAP-{0-255} = Generic Address Parameter
GENDGTS-{0-31} = Generic Digits
GP-{0-255} = Generic Parameter
JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
REG-{1-6} = Register index
TNS = Transit Network Selection

Default value: NULL

Input Examples:

```
DLT-DIGITMOD-PARAM::LucentPbx-LATA-128;

ED-DIGITMOD-PARAM::LucentPbx-LATA-128:::
   MODTYPE=REPLACE,NEWVALUE=126;

ENT-DIGITMOD-PARAM::LucentPbx-LATA-128:::
   MODTYPE=REPLACE,NEWVALUE=126;

RTRV-DIGITMOD-PARAM::LucentPbx-LATA-128;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "LucentPbx-LATA-128:MODTYPE=REPLACE,
      ALTMODTYPE=NOACTION,NEWVALUE=126,
      ALTPARAMVALUE=NULL,NEXTDGTMODKEY=NULL"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-DIGITMOD-TNS

Commands:

DLT-DIGITMOD-TNS: Delete Digit Modification TNS

ED-DIGITMOD-TNS: Edit Digit Modification TNS

ENT-DIGITMOD-TNS: Enter Digit Modification TNS

RTRV-DIGITMOD-TNS: Retrieve Digit Modification TNS

Descriptions:

DLT-DIGITMOD-TNS lets the user delete a digit modification object keyed for the transit network selection (TNS) parameter, which is the circuit code for ISUP calls, and the Carrier or 0ZZ codes for CAS Feature Group D.

ED-DIGITMOD-TNS lets the user change a digit modification object keyed for the transit network selection (TNS) parameter, which is the circuit code for ISUP calls, and the Carrier or 0ZZ codes for CAS Feature Group D. Use this command to change the carrier code, the ISUP circuit code or the CAS 0ZZ or 1NX codes, the incoming trunk group protocol, the type of modification, the type of modification for an alternate parameter, the new value for the carrier code, the new value for the ISUP circuit code or the CAS 0ZZ or 1NX codes, an alternate parameter to modify, and the digit modification to call next.

ENT-DIGITMOD-TNS lets the user establish a digit modification object keyed for the transit network selection (TNS) parameter, which is the circuit code for ISUP calls, or the Carrier or 0ZZ codes for CAS Feature group D. Use this command to define the name of the digit modification, the carrier code, the ISUP circuit code or the CAS 0ZZ or 1NX codes, the incoming trunk group protocol, the type of modification, the type of modification for an alternate parameter, the new value for the carrier code, the new value for the ISUP circuit code or the CAS 0ZZ or 1NX codes, an alternate parameter to modify, and the digit modification to call next.

RTRV-DIGITMOD-TNS lets the user retrieve the attributes of a digit modification object keyed for the transit network selection (TNS) parameter, which is the circuit code for ISUP calls, and the Carrier or 0ZZ codes for CAS Feature group D.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-DIGITMOD-TNS:[TID]:<digitModTnsAid>:[CTAG];

ED-DIGITMOD-TNS:[TID]:<digitModTnsAid>:[CTAG]::
   [MODTYPE=<modtype>],[ALTMODTYPE=<altmodtype>],
   [NEWCARRIER=<newcarrier>],
   [NEWCALLTYPECODE=<newcalltypecode>],
   [ALTPARAMVALUE=<altparamvalue>],
   [NEXTDGTMODKEY=<nextdgtmodkey>];

ENT-DIGITMOD-TNS:[TID]:<digitModTnsAid>:[CTAG]::
   [MODTYPE=<modtype>],[ALTMODTYPE=<altmodtype>],
   [NEWCARRIER=<newcarrier>],
   [NEWCALLTYPECODE=<newcalltypecode>],
   [ALTPARAMVALUE=<altparamvalue>],
   [NEXTDGTMODKEY=<nextdgtmodkey>];

RTRV-DIGITMOD-TNS:[TID]:[<digitModTnsAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<digitModTnsAid>:MODTYPE=<modtype>,
      ALTMODTYPE=<altmodtype>,NEWCARRIER=<newcarrier>,
      NEWCALLTYPECODE=<newcalltypecode>,
      ALTPARAMVALUE=<altparamvalue>,
      NEXTDGTMODKEY=<nextdgtmodkey>"
;
```

Parameters:

digitModTnsAid Identifies the AID as a digit modification object keyed for the transit network selection (TNS) parameter, which is the circuit code for ISUP calls, or the Carrier or 0ZZ codes for CAS Feature group D. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all TNS-keyed digit modification objects configured in the system will be returned.

Type: DigitModTnsAid

Range: <dmLbl>[-<TNS>[-<carrier>[-<callTypeCode >[-<prtcl>]]]], where:

dmLbl identifies the name of the applicable digit modification table with a string of 1-10 alphanumeric characters;

TNS (optional only in RTRV) identifies the primary key that applies to the specified digit modification table with “TNS” as the sole value;

carrier identifies the carrier code as a string of 1-4 digits, “NOTPRSNT”, or the default value “DEFAULT”;

callTypeCode identifies the ISUP circuit code or the CAS 0ZZ or 1NX codes as a string of 1-3 digits with a default of “DEFAULT” (set *callTypeCode* to DEFAULT if *carrier* is DEFAULT or NOTPRSNT);

prtcl identifies the incoming trunk group protocol with values of CAS or ISUP (the default value – set *prtcl* to ISUP if *callTypeCode* is DEFAULT).

Default value: none

modtype Identifies the type of digit modification.

Type: enum

Range: DELETE = removes the parameter
NOACTION = no action taken
REPLACECALLTYPE = replaces the call type code with that specified by the *newCallTypeCode* parameter
REPLACECARRIER = replaces the carrier with that specified by the *newCarrier* parameter
REPLACETNS= replaces both the carrier and the call type code with those specified by the *newCarrier* and *newCallTypeCode* parameters

Default value: NOACTION

altmodtype Identifies the type of digit modification for the alternate parameter.

Type: enum
Range: DELETE = removes the alternate parameter
NOACTION = no action taken
REPLACE = assigns a value, specified by *altParamValue*, to the alternate parameter
Default value: NOACTION

newcarrier Identifies the new value for the carrier code. The value cannot be "NULL" when the value of *modType* is "REPLACETNS" or "REPLACECARRIER"

Type: string
Range: {0-9999}
Default value: NULL

newcalltypecode Identifies the new value for the call type code. The value cannot be "NULL" when the value of *modType* is "REPLACETNS" or "REPLACECALLTYPE"

Type: string
Range: {0-255}
Default value: NULL

altparamvalue Identifies a parameter and associated value that act as an alternate key. This is a way of changing a non-key parameter on a match on the key field (*dnType* in the AID).

Type: string
Range: <altParam>-<altValue>, where:

altParam identifies the name of the applicable non-key parameter, with values of:

CIP = Carrier Information Parameter
CPC = Calling Party Category
CSI = Carrier Selection Information
OLI = Originating Line Information

altValue identifies, when the value of *altModType* is "NOACTION" or "REPLACE" (leave blank when the value of *altModType* is "DELETE"), the new value applicable to the specified non-key parameter, with values of:

CIP: 0-9999
CPC: 00-FF (hexadecimal)
CSI:
PRESUBDIAL = presubscribed and input by calling party
PRESUBNOTDIAL = presubscribed and not input by calling party
PRESUBUNKNOWN = presubscribed, input by calling party undetermined
NOTPRESUB = not presubscribed and input by calling party
UNKNOWN = no indication
OLI: 00-FF (hexadecimal)

Default value: NULL

nextdgtmodkey Identifies the digit modification table and associated primary key to call next. This is a way of changing a non-key parameter on a match on the key field (*TNS* in the AID).

Type: string
Range: <dmLbl>-<primKey>, where:

dmLbl identifies the name of the applicable digit modification table with a string of 1-10 characters;

primKey identifies the primary key applicable to the specified digit modification table, with values of:

CALLTYPE = type of call (Class 5)
CDPN = called party number
CGPN = calling party number
CHRGN = charge number
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
CSI = Carrier Selection Information
GAP-{0-255} = Generic Address Parameter
GENDGTS-{0-31} = Generic Digits
GP-{0-255} = Generic Parameter
JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
REG-{1-6} = Register index
TNS = Transit Network Selection

Default value: NULL

Input Examples:

```
DLT-DIGITMOD-TNS::LucentPbx-TNS-1-DEFAULT-ISUP;
ED-DIGITMOD-TNS::LucentPbx-TNS-1-DEFAULT-ISUP:::
   MODTYPE=REPLACECARRIER,NEWCARRIER=2;
ENT-DIGITMOD-TNS::LucentPbx-TNS-1-DEFAULT-ISUP:::
   MODTYPE=REPLACECARRIER,NEWCARRIER=2;
RTRV-DIGITMOD-TNS::LucentPbx-TNS-1-DEFAULT-ISUP;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "LucentPbx-TNS-1-DEFAULT-ISUP:
      MODTYPE=REPLACECARRIER,ALTMODTYPE=NOACTION,
      NEWCARRIER=2,NEWCALLTYPECODE=NULL,
      ALTPARAMVALUE=NULL,NEXTDGTMODKEY=NULL"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-PRFL-FAILCND

Commands:

DLT-PRFL-FAILCND: Delete Profile Failure Condition

ED-PRFL-FAILCND: Edit Profile Failure Condition

ENT-PRFL-FAILCND: Enter Profile Failure Condition

RTRV-PRFL-FAILCND: Retrieve Profile Failure Condition

Descriptions:

DLT-PRFL-FAILCND lets the user delete a failure condition profile from the system.

ED-PRFL-FAILCND lets the user change a failure condition profile. Use ED-PRFL-FAILCND to change the action taken on encountering a specific failure condition, and either the treatment or the release cause identifier.

ENT-PRFL-FAILCND lets the user establish a failure condition profile that determines the action taken (release the call with an error message or provide some sort of treatment) on encountering a specific failure condition. The Lucent Compact Switch supports up to 10 failure condition profiles.

RTRV-PRFL-FAILCND lets the user retrieve the properties of a failure condition profile.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-PRFL-FAILCND:[TID]:<failCndAid>:[CTAG];

ED-PRFL-FAILCND:[TID]:<failCndAid>:[CTAG]::
   [FAILTYPE=<failtype>],[TREATMENT=<treatment>],
   [RELEASE=<release>];

ENT-PRFL-FAILCND:[TID]:<failCndAid>:[CTAG]::
   FAILTYPE=<failtype>,[TREATMENT=<treatment>],
   [RELEASE=<release>];

RTRV-PRFL-FAILCND:[TID]:[<failCndAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<failCndAid>:FAILTYPE=<failtype>,
      TREATMENT=<treatment>,RELEASE=<release>"
;
```

Parameters:

failCndAid Identifies the AID as a failure condition profile. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all failure condition profiles configured in the system will be returned. Specifying just the first part of the AID (in RTRV) is equivalent to "ALL"; that is, by leaving the subsequent fields blank, the system returns all configured failure conditions and associated protocols for the designated profile.

Type: string
Range: <failCndPrfl>[-<cnd>[-<prtcl>]], where

failCndPrfl identifies the name of the failure condition profile with a string of up to 10 alphanumeric characters. The DEFAULT profile shows the factory default settings and cannot be edited or deleted.

cnd identifies the name of the failure condition with a string of up to 21 alphanumeric characters.

prtcl identifies the incoming protocol type, with values of:

BICC = BICC trunk
CASIF = CAS interface
CASTRK = CAS trunk
GR303 = GR303 interface
ISDNIF = ISDN interface
ISUP = ISUP trunk
MGCP = MGCP interface
SIP = SIP trunk

Default value: none

failType Identifies whether the failure condition yields a release cause or a treatment.

Type: enum
Range: RELEASE
TREAT
Default value: RELEASE

treatment Identifies the name of the previously-defined treatment, but only when the value of *failType* is "TREAT". The value cannot be "NULL" when the value of *failType* is "TREAT".

Type: string
Range: up to 10 alphanumeric characters
Default value: NULL

release Identifies the name of the release cause, but only when the value of *failType* is "RELEASE". The value cannot be "NULL" when the value of *failType* is "RELEASE".

Type: string
Range: <rlsCause>-<rlsLoc>-<rlsStd>, where

rlsCause identifies the protocol-dependent release cause value with an integer from 1-127

rlsLoc identifies the location value to set in the cause value, with values of:

INTNET = International network
LOCALIF = Local interface
NETINTER = Network beyond interworking point
NOINFOAV = No information available
PRIVNETLU = Private network serving the local user
PRIVNETRU = Private network serving the remote user
PUBNETLU = Public network serving the local user
PUBNETRU = Public network serving the remote user
TRANNET = Transit network
USER = User

rlsStd identifies the reference standard to use when generating the release cause code. Refer to GR246 for definitions of these codes. Values are ANSI and CCITT.

Default value: NULL

Input Examples:

```
DLT-PRFL-FAILCND::DEFAULT-NORMAL_CLRG-ISUP;

ED-PRFL-FAILCND::DEFAULT-NORMAL_CLRG-ISUP:::
   FAILTYPE=RELEASE,RELEASE=16-CCITT;

ENT-PRFL-FAILCND::DEFAULT-NORMAL_CLRG-ISUP:::
   FAILTYPE=RELEASE,RELEASE=16-CCITT;

RTRV-PRFL-FAILCND::DEFAULT;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "DEFAULT-REQ_CHAN_NAVAIL-SIP:FAILTYPE=RELEASE,
      TREATMENT=NULL,RELEASE=44-CCITT"
   "DEFAULT-REQ_CHAN_NAVAIL-BICC:FAILTYPE=RELEASE,
      TREATMENT=NULL,RELEASE=44-CCITT"
   "DEFAULT-NORMAL_CLRG-ISUP:FAILTYPE=RELEASE,
      TREATMENT=NULL,RELEASE=16-CCITT"
;
```

Related Commands:

DLT/ED/ENT/RTRV-TREATMENT
RTRV-FAILCND

DLT/ED/ENT/RTRV-PRFL-FRAUDTRAP

Commands:

DLT-PRFL-FRAUDTRAP: Delete Profile Fraud Trap

ED-PRFL-FRAUDTRAP: Edit Profile Fraud Trap

ENT-PRFL-FRAUDTRAP: Enter Profile Fraud Trap

RTRV-PRFL-FRAUDTRAP: Retrieve Profile Fraud Trap

Descriptions:

DLT-PRFL-FRAUDTRAP lets the user delete a fraud trap profile from the system.

ED-PRFL-FRAUDTRAP lets the user change a fraud trap profile that defines how the Lucent Compact Switch behaves when encountering a fraud scenario. Use ED-PRFL-FRAUDTRAP to change the action taken on encountering a specific failure condition, and either the treatment or the release cause identifier.

ENT-PRFL-FRAUDTRAP lets the user establish a fraud trap profile that defines how the Lucent Compact Switch behaves when encountering a fraud scenario. The switch can release the call and generate an informational log after a specified duration; it can also create a zero length CDR to track the existence of the call.

RTRV-PRFL-FRAUDTRAP lets the user retrieve the properties of a fraud trap profile.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-PRFL-FRAUDTRAP:[TID]:<fraudTrapPrfl>:[CTAG];

ED-PRFL-FRAUDTRAP:[TID]:<fraudTrapPrfl>:[CTAG]::
   [DURATION=<duration>],[LOG=<log>],
   [ZERODURCDR=<zeroDurCdr>],[RLSCALL=<rlsCall>];

ENT-PRFL-FRAUDTRAP:[TID]:<fraudTrapPrfl>:[CTAG]::
   [DURATION=<duration>],[LOG=<log>],
   [ZERODURCDR=<zeroDurCdr>],[RLSCALL=<rlsCall>];

RTRV-PRFL-FRAUDTRAP:[TID]:[<fraudTrapPrfl>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<fraudTrapPrfl>:[CTAG]::DURATION=<duration>,
      LOG=<log>,ZERODURCDR=<zeroDurCdr>,
      RLSCALL=<rlsCall>"
;
```

Parameters:

fraudTrapPrfl Identifies the AID as a fraud trap profile. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all fraud trap profiles configured in the system will be returned.

Type: string
Range: up to 10 alphanumeric characters
Default value: none

duration Identifies the duration for the fraud trap.

Type: string
Range: <durationVal>-<units>, where

durationVal identifies the duration value for the fraud trap as an integer from 1-3600

units identifies unit of time for the duration value, with values of DAY, HR, MIN, or SEC

Default value: NULL

log Identifies whether to generate an informational log when the duration timer expires.

Type: BoolYN
Range: N = do not generate an informational log on timer expiry
Y = generate an informational log on timer expiry
Default value: N

zeroDurCdr Identifies whether to generate a zero duration CDR with appropriate flag when the duration timer expires.

Type: BoolYN
Range: N = do not generate a zero duration CDR with appropriate flag on timer expiry
Y = generate a zero duration CDR with appropriate flag on timer expiry
Default value: N

rlsCall Identifies whether to automatically release the call when the duration timer expires.

Type: BoolYN
Range: N = do not automatically release the call on timer expiry
Y = automatically release the call on timer expiry
Default value: N

Input Examples:

```
DLT-PRFL-FRAUDTRAP::TRAPPRFL1;

ED-PRFL-FRAUDTRAP::TRAPPRFL1:::DURATION=30-MIN,
   LOG=N,ZERODURCDR=N,RLSCALL=N;

ENT-PRFL-FRAUDTRAP::TRAPPRFL1:::DURATION=30-MIN,
   LOG=N,ZERODURCDR=N,RLSCALL=N;

RTRV-PRFL-FRAUDTRAP::TRAPPRFL1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "TRAPPRFL1:DURATION=30-MIN,LOG=N,ZERODURCDR=N,
      RLSCALL=N"
;
```

Related Commands:

```
RTRV-FRAUDCALLS
```

DLT/ED/ENT/RTRV-PRFL-PARAMDEFAULTS

Commands:

DLT-PRFL-PARAMDEFAULTS: Delete Profile Failure Condition

ED-PRFL-PARAMDEFAULTS: Edit Profile Parameter Defaults

ENT-PRFL-PARAMDEFAULTS: Enter Profile Parameter Defaults

RTRV-PRFL-PARAMDEFAULTS: Retrieve Profile Parameter Defaults

Descriptions:

DLT-PRFL-PARAMDEFAULTS lets the user delete a parameter defaults profile from the system.

ED-PRFL-PARAMDEFAULTS lets the user change a parameter defaults profile. Use ED-PRFL-PARAMDEFAULTS to change the default values for message blocks when different protocols affect a trunk group.

ENT-PRFL-PARAMDEFAULTS lets the user establish a parameter defaults profile that provides default values for all message blocks when different protocols affect a trunk group.

RTRV-PRFL-PARAMDEFAULTS lets the user retrieve the properties of a parameter defaults profile.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-PRFL-PARAMDEFAULTS:[TID]:<paramDefaultsAid>:
   [CTAG];
ED-PRFL-PARAMDEFAULTS:[TID]:<paramDefaultsAid>:
   [CTAG]::[CHRGN=<chrgn>],[CDPN=<cdpn>],
   [CGPN=<cgpn>],[OLI=<oli>],[TNS=<tns>],[CIP=<cip>],
   [JIP=<jip>],[CALLTYPE=<calltype>],[CSI=<csi>];
ENT-PRFL-PARAMDEFAULTS:[TID]:<paramDefaultsAid>:
   [CTAG]::[CHRGN=<chrgn>],[CDPN=<cdpn>],
   [CGPN=<cgpn>],[OLI=<oli>],[TNS=<tns>],[CIP=<cip>],
   [JIP=<jip>],[CALLTYPE=<calltype>],[CSI=<csi>];
RTRV-PRFL-PARAMDEFAULTS:[TID]:[<paramDefaultsAid>]:
   [CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<paramDefaultsAid>:CHRGN=<chrgn>,CDPN=<cdpn>,
      CGPN=<cgpn>,OLI=<oli>,TNS=<tns>,CIP=<cip>,
      JIP=<jip>,CALLTYPE=<calltype>,CSI=<csi>"
;
```

Parameters:

paramDefaultsAid Identifies the AID as a parameter defaults profile. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all parameter defaults profiles configured in the system will be returned.

Type: string
Range: up to 10 alphanumeric characters
Default value: none

chrgn Identifies the default values for the charge number parameter.

Type: string
Range: <action>-<chrgnai>-<nmbr>, where

action identifies whether to use the value entered by this command, with values of:
- DEFAULT = when the parameter is not present, create it and use entered value
- OVERRIDE = use entered value only when the parameter is present

chrgnai identifies the charge number nature of address indicator, with values of:
- CDPNATNUM = ANI of the called party; national number
- CDPSUBSNUM = ANI of the called party; subscriber number
- CDPUNAVAIL = ANI of the called party; no number present
- CGPNATNUM = ANI of the calling party; national number
- CGPSUBSNUM = ANI of the calling party; subscriber number
- UNAVAIL = ANI not available or not provided

nmbr identifies the DN for the charge number with a string of 1-31 digits.

Default value: NULL

cdpn Identifies the default values for the called party number parameter.

Type: string
Range: <action>-<cdnai>-<nmbr>, where

action identifies whether to use the value entered by this command, with values of:

- DEFAULT = use entered value only when the parameter is not present
- OVERRIDE = use entered value regardless of parameter presence

cdnai identifies the called party number nature of address indicator, with values of:

- ABBREVPVT = abbreviated private
- INTNATNUM = international number
- INTNATOPREQ = international operator request
- NATNUM = national significant number
- NATOPREQ = national (long-distance) operator request
- NONUMCUTTHRU = no number provided, cut through to carrier
- NONUMOPREQ = no number provided, operator request
- SUBOPREQ = subscriber (local) operator request
- SUBSNUM = subscriber number
- TESTLINE = test line test code
- UNKNOWN = unknown

nmbr identifies the DN for the called party number with a string of 1-31 digits.

Default value: NULL

cgpn Identifies the default values for the calling party number parameter.

Type: string
Range: <action>-<cgnai>-<pres>-<nmbr>, where

action identifies whether to use the value entered by this command, with values of:
- DEFAULT = use entered value only when the parameter is not present
- OVERRIDE = use entered value regardless of parameter presence

cgnai identifies the called party number nature of address indicator, with values of:
- ABBREVPVT = abbreviated private
- NUNIINTNATNUM = non-unique international number
- NUNINATNUM = non-unique national number
- NUNISUBSNUM = non-unique subscriber number
- TESTLINE = test line test code
- UNIINTNATNUM = unique international number
- UNINATNUM = unique national number
- UNISUBSNUM = unique subscriber number

pres identifies whether address presentation is allowed, with values of:
- ALLOWED = address presentation is allowed
- RESTRICTED = address presentation is not allowed

nmbr identifies the DN for the calling party number with a string of 1-31 digits.

Default value: NULL

oli Identifies the default values for the Originating Line Information parameter.

Type: string
Range: <action>-<oliVal>, where

action identifies whether to use the value entered by this command, with values of:
- DEFAULT = use entered value only when the parameter is not present
- OVERRIDE = use entered value regardless of parameter presence

oliVal identifies the value for the Originating Line Information parameter with a hexadecimal string from 00-FF

Default value: NULL

tns Identifies the default values for the Transit Network Selection parameter.

Type: string
Range: <action>-<carrierCode>-<callTypeCode>, where

action identifies whether to use the value entered by this command, with values of:
- DEFAULT = use entered value only when the parameter is not present
- OVERRIDE = use entered value regardless of parameter presence

carrierCode identifies the value for the inserted carrier portion of the TNS parameter with an integer from 0-9999

callTypeCode identifies the value for the inserted circuit code portion of the TNS parameter with an integer from 0-255

Default value: NULL

cip Identifies the default values for the Carrier Information Parameter.

Type: string
Range: <action>-<cipVal>, where

action identifies whether to use the value entered by this command, with values of:
- DEFAULT = use entered value only when the parameter is not present
- OVERRIDE = use entered value regardless of parameter presence

cipVal identifies the value for the Carrier Information Parameter with an integer from 0-9999

Default value: NULL

jip Identifies the default values for the Jurisdiction Information Parameter.

Type: string
Range: <action>-<jipVal>, where

action identifies whether to use the value entered by this command, with values of:
- DEFAULT = use entered value only when the parameter is not present
- OVERRIDE = use entered value regardless of parameter presence

jipVal identifies the value for the Jurisdiction Information Parameter with an integer from 200000-999999

Default value: NULL

callType Identifies the type of call (Class 5).

Type: enum
Range: CUTTHRU
DIR_ASSISTANCE
EMERGENCY
INTERLATA
INTERLATAOPREQ
INTNATNUM
INTNATOPREQ
INTRALATA
LOCALNUMBER
LOCALOPREQ
N11
NATNUM
NONUMOPREQ
TOLLFREE
Default value: NULL

csi Identifies the default values for the Carrier Selection Information parameter.

Type: string
Range: <action>-<csiVal>, where

action identifies whether to use the value entered by this command, with values of:
- DEFAULT = use entered value only when the parameter is not present
- OVERRIDE = use entered value regardless of parameter presence

csiVal identifies the value for the Carrier Selection Information parameter with values of:
- PRESUBDIAL = presubscribed and input by calling party
- PRESUBNOTDIAL = presubscribed and not input by calling party
- PRESUBUNKNOWN = presubscribed, input by calling party undetermined
- NOTPRESUB = not presubscribed and input by calling party
- UNKNOWN = no indication

Default value: NULL

Input Examples:

```
DLT-PRFL-PARAMDEFAULTS::DFLTPRFL1;

ED-PRFL-PARAMDEFAULTS::DFLTPRFL1:::
   CHRGN=DEFAULT-CDPNATNUM-5084800909,
   CDPN=DEFAULT-NATNUM-5084800909,
   CGPN=DEFAULT-NUNINATNUM-ALLOWED-5088048202,
   OLI=DEFAULT-2F,TNS=DEFAULT-1-1,CIP=DEFAULT-1,
   JIP=DEFAULT-508804,CALLTYPE=LOCALNUMBER,
   CSI=DEFAULT-PRESUBDIAL;

ENT-PRFL-PARAMDEFAULTS::DFLTPRFL1:::
   CHRGN=DEFAULT-CDPNATNUM-5084800909,
   CDPN=DEFAULT-NATNUM-5084800909,
   CGPN=DEFAULT-NUNINATNUM-ALLOWED-5088048202,
   OLI=DEFAULT-2F,TNS=DEFAULT-1-1,CIP=DEFAULT-1,
   JIP=DEFAULT-508804,CALLTYPE=LOCALNUMBER,
   CSI=DEFAULT-PRESUBDIAL;

RTRV-PRFL-PARAMDEFAULTS::DFLTPRFL1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "DFLTPRFL1:CHRGN=DEFAULT-CDPNATNUM-5084800909,
      CDPN=DEFAULT-NATNUM-5084800909,
      CGPN=DEFAULT-NUNINATNUM-ALLOWED-5088048202,
      OLI=DEFAULT-2F,TNS=DEFAULT-1-1,CIP=DEFAULT-1,
      JIP=DEFAULT-508804,CALLTYPE=LOCALNUMBER,
      CSI=DEFAULT-PRESUBDIAL,REG=NULL"
;
```

Related Commands:

DLT/ED/ENT/RTRV-PRFL-PARAMSUPPRESS

DLT/ED/ENT/RTRV-PRFL-PARAMSUPPRESS

Commands:

DLT-PRFL-PARAMSUPPRESS: Delete Profile Parameter Suppression

ED-PRFL-PARAMSUPPRESS: Edit Profile Parameter Suppression

ENT-PRFL-PARAMSUPPRESS: Enter Profile Parameter Suppression

RTRV-PRFL-PARAMSUPPRESS: Retrieve Profile Parameter Suppression

Descriptions:

DLT-PRFL-PARAMSUPPRESS lets the user delete a parameter suppression profile from the system. You cannot delete a parameter suppression profile specified as the value for *icParamSuppressPrfl* or *ogParamSuppressPrfl* in ENT-TRKGRP.

ED-PRFL-PARAMSUPPRESS lets the user change a parameter suppression profile. Use ED-PRFL-PARAMSUPPRESS to change which of the various call parameters are suppressed (that is, not sent) in an outgoing IAM.

ENT-PRFL-PARAMSUPPRESS lets the user establish a parameter suppression profile that determines the combination of parameters suppressed (that is, not sent) in an outgoing IAM. IAM parameters apply to signaling protocols as designated in the following table:

	ISUP	BICC	SIP	CAS
chrgn	X	X	X	X
cgpn	X	X	X	
oli	X	X	X	X
tns	X	X	X	X
cip	X	X	X	
jip	X	X	X	
gap	X	X		
gendgts	X	X		
hopCntr	X	X		
redirInfo	X	X	X	
redirNmbr	X	X	X	
ocn	X	X	X	

RTRV-PRFL-PARAMSUPPRESS lets the user retrieve the properties of a parameter suppression profile.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-PRFL-PARAMSUPPRESS:[TID]:<suppressPrflId>:[CTAG];

ED-PRFL-PARAMSUPPRESS:[TID]:<suppressPrflId>:[CTAG]::
   [CHRGN=<chrgn>],[CGPN=<cgpn>],[OLI=<oli>],
   [TNS=<tns>],[CIP=<cip>],[JIP=<jip>],[GAP=<gap>],
   [GENDGTS=<gendgts>],[HOPCNTR=<hopCntr>],
   [REDIRINFO=<redirInfo>],[REDIRNMBR=<redirNmbr>],
   [OCN=<ocn>];

ENT-PRFL-PARAMSUPPRESS:[TID]:<suppressPrflId>:[CTAG]::
   [CHRGN=<chrgn>],[CGPN=<cgpn>],[OLI=<oli>],
   [TNS=<tns>],[CIP=<cip>],[JIP=<jip>],[GAP=<gap>],
   [GENDGTS=<gendgts>],[HOPCNTR=<hopCntr>],
   [REDIRINFO=<redirInfo>],[REDIRNMBR=<redirNmbr>],
   [OCN=<ocn>];

RTRV-PRFL-PARAMSUPPRESS:[TID]:[<suppressPrflId>]:
   [CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<suppressPrflId>:CHRGN=<chrgn>,CGPN=<cgpn>,
      OLI=<oli>,TNS=<tns>,CIP=<cip>,JIP=<jip>,
      GAP=<gap>,GENDGTS=<gendgts>,HOPCNTR=<hopcntr>,
      REDIRINFO=<redirinfo>,REDIRNMBR=<redirnmbr>,
      OCN=<ocn>"
;
```

Parameters:

suppressPrflId Identifies the AID as a parameter suppression profile. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all parameter suppression profiles configured in the system will be returned.

Type: string
Range: up to 10 alphanumeric characters
Default value: none

chrgn Identifies whether the charge number parameter is suppressed (not sent) in outgoing IAMs.

Type: BoolYN
Range: Y = suppress (do not send) parameter
N = do not suppress parameter
Default value: N

cgpn Identifies whether the calling party number parameter is suppressed (not sent) in outgoing IAMs.

Type: BoolYN
Range: Y = suppress (do not send) parameter
N = do not suppress parameter
Default value: N

oli Identifies whether the Originating Line Information parameter is suppressed (not sent) in outgoing IAMs.

Type: BoolYN
Range: Y = suppress (do not send) parameter
N = do not suppress parameter
Default value: N

tns Identifies whether the Transit Network Selection parameter is suppressed (not sent) in outgoing IAMs.

Type: BoolYN
Range: Y = suppress (do not send) parameter
N = do not suppress parameter
Default value: N

cip Identifies whether the Carrier Information Parameter is suppressed (not sent) in outgoing IAMs.

Type: BoolYN
Range: Y = suppress (do not send) parameter
N = do not suppress parameter
Default value: N

jip Identifies whether the Jurisdiction Information Parameter is suppressed (not sent) in outgoing IAMs.

Type: BoolYN
Range: Y = suppress (do not send) parameter
N = do not suppress parameter
Default value: N

gap Identifies the type of generic address parameter suppressed (not sent) in outgoing IAMs. You can specify up to 10 generic addresses, separated by ampersands (&). Use "DEFAULT" to specify all generic addresses.

Type: string
Range: {0-255}
DEFAULT
NULL
Default value: NULL

genDgts Identifies the type of generic digits parameter suppressed (not sent) in outgoing IAMs. You can specify up to 10 generic digits, separated by ampersands (&). Use "DEFAULT" to specify all generic addresses.

Type: string
Range: {0-31}
DEFAULT
NULL
Default value: NULL

hopCntr Identifies whether the hop counter value (that is, the allowable number of switches traversed in the call route is suppressed (not sent) in outgoing IAMs.

Type: BoolYN
Range: Y = suppress (do not send) value
N = do not suppress value
Default value: N

redirInfo Identifies whether the redirecting information (the redirecting subaddress for ISDN interfaces) is suppressed (not sent) in outgoing IAMs.

Type: BoolYN
Range: Y = suppress (do not send) redirecting information
N = do not suppress redirecting information
Default value: N

redirNmbr Identifies whether the redirecting number for ISDN interfaces is suppressed (not sent) in outgoing IAMs.

Type: BoolYN
Range: Y = suppress (do not send) redirecting number
N = do not suppress redirecting number
Default value: N

ocn Identifies whether the Originating Called party Number parameter is suppressed (not sent) in outgoing IAMs.

Type: BoolYN
Range: Y = suppress (do not send) parameter
N = do not suppress parameter
Default value: N

Input Examples:

```
DLT-PRFL-PARAMSUPPRESS::PRFL1;

ED-PRFL-PARAMSUPPRESS::PRFL1:::CHRGN=N,CGPN=N,OLI=N,
   TNS=N,CIP=N,JIP=N,GAP=NULL,GENDGTS=NULL,HOPCNTR=N,
   REDIRINFO=N,REDIRNMBR=N,OCN=N;

ENT-PRFL-PARAMSUPPRESS::PRFL1:::CHRGN=N,CGPN=N,OLI=N,
   TNS=N,CIP=N,JIP=N,GAP=NULL,GENDGTS=NULL,HOPCNTR=N,
   REDIRINFO=N,REDIRNMBR=N,OCN=N;

RTRV-PRFL-PARAMSUPPRESS::PRFL1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "PRFL1:CHRGN=N,CGPN=N,OLI=N,TNS=N,CIP=N,JIP=N,
      GAP=NULL,GENDGTS=NULL,HOPCNTR=N,REDIRINFO=N,
      REDIRNMBR=N,OCN=N"
;
```

Related Commands:

```
DLT/ED/ENT/RTRV-PRFL-PARAMDEFAULTS
```

DLT/ED/ENT/RTRV-PRFL-SCHED

Commands:

DLT-PRFL-SCHED: Delete Profile Schedule

ED-PRFL-SCHED: Edit Profile Schedule

ENT-PRFL-SCHED: Enter Profile Schedule

RTRV-PRFL-SCHED: Retrieve Profile Schedule

Descriptions:

DLT-PRFL-SCHED lets the user delete a profile for a routing schedule from the system.

ED-PRFL-SCHED lets the user change the days, dates, and times applicable to a profile for a routing schedule. The edit command fails when the edit results in two conflicting schedules for the same profile.

ENT-PRFL-SCHED lets the user establish the days, dates, and times for which a profile applies to a routing schedule.

RTRV-PRFL-SCHED lets the user retrieve the days, dates, and times applicable to a profile for a routing schedule.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-PRFL-SCHED:[TID]:<prflName>:[CTAG];

ED-PRFL-SCHED:[TID]:<prflName>:[CTAG]::[SUN=<sun>],
   [MON=<mon>],[TUE=<tue>],[WED=<wed>],[THU=<thu>],
   [FRI=<fri>],[SAT=<sat>],[DATE1=<date1>],
   [DATE2=<date2>],[DATE3=<date3>],[DATE4=<date4>],
   [DATE4=<date5>],[DATE5=<date6>],[DATE6=<date7>],
   [DATE8=<date8>],[DATE9=<date9>],[DATE10=<date10>],
   [DATE11=<date11>],[DATE12=<date12>],[TIME=<time>];

ENT-PRFL-SCHED:[TID]:<prflName>:[CTAG]::[SUN=<sun>],
   [MON=<mon>],[TUE=<tue>],[WED=<wed>],[THU=<thu>],
   [FRI=<fri>],[SAT=<sat>],[DATE1=<date1>],
   [DATE2=<date2>],[DATE3=<date3>],[DATE4=<date4>],
   [DATE4=<date5>],[DATE5=<date6>],[DATE6=<date7>],
   [DATE8=<date8>],[DATE9=<date9>],[DATE10=<date10>],
   [DATE11=<date11>],[DATE12=<date12>],[TIME=<time>];
```

```
RTRV-PRFL-SCHED:[TID]:[<prflName>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<prflname>:[SUN=<sun>],[MON=<mon>],[TUE=<tue>],
      [WED=<wed>],[THU=<thu>],[FRI=<fri>],[SAT=<sat>],
      [DATE1=<date1>],[DATE2=<date2>],[DATE3=<date3>],
      [DATE4=<date4>],[DATE4=<date5>],[DATE5=<date6>],
      [DATE6=<date7>],[DATE8=<date8>],[DATE9=<date9>],
      [DATE10=<date10>],[DATE11=<date11>],
      [DATE12=<date12>],[TIME=<time>]"
;
```

Parameters:

prflName Identifies the AID as a profile for a routing schedule. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all routing schedule profiles configured in the system will be returned.

Type: string
Range: up to 20 alphanumeric characters
Default value: none

sun Identifies the time period on Sundays during which the routing schedule is active. Multiple time periods are separated by ampersands (“&”). Time periods are currently represented by whole hours only; the only valid number for minutes is “00”. Enter the default “NULL” to remove the day from the profile.

Type: enum
Range: {00-23}{00-59}-{00-23}{00-59}
Default value: NULL

mon Identifies the time period on Mondays during which the routing schedule is active. Multiple time periods are separated by ampersands (“&”). Time periods are currently represented by whole hours only; the only valid number for minutes is “00”. Enter the default “NULL” to remove the day from the profile.

Type: enum
Range: {00-23}{00-59}-{00-23}{00-59}
Default value: NULL

tue Identifies the time period on Tuesdays during which the routing schedule is active. Multiple time periods are separated by ampersands (“&”). Time periods are currently represented by whole hours only; the only valid number for minutes is “00”. Enter the default “NULL” to remove the day from the profile.

Type: enum
Range: {00-23}{00-59}-{00-23}{00-59}
Default value: NULL

wed Identifies the time period on Wednesdays during which the routing schedule is active. Multiple time periods are separated by ampersands (“&”). Time periods are currently represented by whole hours only; the only valid number for minutes is “00”. Enter the default “NULL” to remove the day from the profile.

Type: enum
Range: {00-23}{00-59}-{00-23}{00-59}
Default value: NULL

thu Identifies the time period on Thursdays during which the routing schedule is active. Multiple time periods are separated by ampersands (“&”). Time periods are currently represented by whole hours only; the only valid number for minutes is “00”. Enter the default “NULL” to remove the day from the profile.

Type: enum
Range: {00-23}{00-59}-{00-23}{00-59}
Default value: NULL

fri Identifies the time period on Fridays during which the routing schedule is active. Multiple time periods are separated by ampersands (“&”). Time periods are currently represented by whole hours only; the only valid number for minutes is “00”. Enter the default “NULL” to remove the day from the profile.

Type: enum
Range: {00-23}{00-59}-{00-23}{00-59}
Default value: NULL

sat Identifies the time period on Saturdays during which the routing schedule is active. Multiple time periods are separated by ampersands (“&”). Time periods are currently represented by whole hours only; the only valid number for minutes is “00”. Enter the default “NULL” to remove the day from the profile.

Type: enum
Range: {00-23}{00-59}-{00-23}{00-59}
Default value: NULL

date1 Identifies a date, by month and day of month (two digits each), on which the routing schedule is active. Enter the default "NULL" to remove the date from the profile.

Type: enum
Range: {01-12}-{01-31}
Default value: NULL

date2 Identifies a date, by month and day of month (two digits each), on which the routing schedule is active. Enter the default "NULL" to remove the date from the profile.

Type: enum
Range: {01-12}-{01-31}
Default value: NULL

date3 Identifies a date, by month and day of month (two digits each), on which the routing schedule is active. Enter the default "NULL" to remove the date from the profile.

Type: enum
Range: {01-12}-{01-31}
Default value: NULL

date4 Identifies a date, by month and day of month (two digits each), on which the routing schedule is active. Enter the default "NULL" to remove the date from the profile.

Type: enum
Range: {01-12}-{01-31}
Default value: NULL

date5 Identifies a date, by month and day of month (two digits each), on which the routing schedule is active. Enter the default "NULL" to remove the date from the profile.

Type: enum
Range: {01-12}-{01-31}
Default value: NULL

date6 Identifies a date, by month and day of month (two digits each), on which the routing schedule is active. Enter the default "NULL" to remove the date from the profile.

Type: enum
Range: {01-12}-{01-31}
Default value: NULL

date7 Identifies a date, by month and day of month (two digits each), on which the routing schedule is active. Enter the default "NULL" to remove the date from the profile.

Type: enum
Range: {01-12}-{01-31}
Default value: NULL

date8 Identifies a date, by month and day of month (two digits each), on which the routing schedule is active. Enter the default "NULL" to remove the date from the profile.

Type: enum
Range: {01-12}-{01-31}
Default value: NULL

date9 Identifies a date, by month and day of month (two digits each), on which the routing schedule is active. Enter the default "NULL" to remove the date from the profile.

Type: enum
Range: {01-12}-{01-31}
Default value: NULL

date10 Identifies a date, by month and day of month (two digits each), on which the routing schedule is active. Enter the default "NULL" to remove the date from the profile.

Type: enum
Range: {01-12}-{01-31}
Default value: NULL

date11 Identifies a date, by month and day of month (two digits each), on which the routing schedule is active. Enter the default "NULL" to remove the date from the profile.

Type: enum
Range: {01-12}-{01-31}
Default value: NULL

date12 Identifies a date, by month and day of month (two digits each), on which the routing schedule is active. Enter the default "NULL" to remove the date from the profile.

Type: enum
Range: {01-12}-{01-31}
Default value: NULL

time Identifies a time period, on the dates represented by *date1* through *date12*, during which the routing schedule is active. Multiple time periods are separated by ampersands ("&"). Time periods are currently represented by whole hours only; the only valid number for minutes is "00".

Type: enum
Range: {00-23}{00-59}-{00-23}{00-59}
Default value: NULL

Input Examples:

```
DLT-ROUTE-N11::PROFILE1;

ED-PRFL-SCHED::PROFILE1:::MON=0800-1900,TUE=0800-1900,
   WED=0800-1900,THU=0800-1900,FRI=0800-1900,
   SAT=0900-1200&1300-1700;

ED-PRFL-SCHED::PROFILE2:::DATE1=01-01,DATE2=07-04,
   DATE3=10-31,TIME=0900-1200&1300-1700;

ENT-PRFL-SCHED::PROFILE1:::MON=0800-1900,
   TUE=0800-1900,WED=0800-1900,THU=0800-1900,
   FRI=0800-1900,SAT=0900-1200&1300-1700;

ENT-PRFL-SCHED::PROFILE2:::DATE1=01-01,DATE2=07-04,
   DATE3=10-31,TIME=0900-1200&1300-1700;


RTRV-PRFL-SCHED;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "PROFILE1:MON=0800-1900,TUE=0800-1900,
      WED=0800-1900,THU=0800-1900,FRI=0800-1900,
      SAT=0900-1200&1300-1700"
   "PROFILE2:DATE1=01-01,DATE2=07-04,DATE3=10-31,
      TIME=0900-1200&1300-1700"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-ROUTE

Commands:

DLT-ROUTE: Delete Route

ED-ROUTE: Edit Route

ENT-ROUTE: Enter Route

RTRV-ROUTE: Retrieve Route

Descriptions:

DLT-ROUTE lets the user delete a route from the system.

ED-ROUTE lets the user change the properties of a route; that is, a member of a named list of trunk groups or interfaces. Each route is a member of a route list, and this command enables adding trunk groups, line interfaces or other route lists to the parent route list. There is no limit on the number of times a trunk group can appear in different routes. Use ED-ROUTE to change either the interface type for the route or the route list to which the route points, the digit modification used to change parameters that reach this route, and the relative priority for the route.

ENT-ROUTE lets the user establish an outgoing route; that is, a member of a named list of trunk groups or interfaces. Each route is a member of a route list, and this command enables adding trunk groups, line interfaces or other route lists to the parent route list. There is no limit on the number of times a trunk group can appear in different routes. ENT-ROUTE will not work unless ENT-ROUTE-LIST has already been issued.

RTRV-ROUTE lets the user retrieve the properties of a route; that is, a member of a named list of trunk groups or interfaces.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-ROUTE:[TID]:<rtId>:[CTAG];

ED-ROUTE:[TID]:<rtId>:[CTAG]::[BGN=<bgn>],
   [RTLIST=<rtList>],[DGTMODKEY=<dgtModKey>],
   [WEIGHT=<weight>];

ENT-ROUTE:[TID]:<rtId>:[CTAG]::[BGN=<bgn>],
   [RTLIST=<rtList>],[DGTMODKEY=<dgtModKey>],
   [WEIGHT=<weight>];

RTRV-ROUTE:[TID]:[<rtId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<rtId>:BGN=<bgn>,RTLIST=<rtList>,
      DGTMODKEY=<dgtModKey>,WEIGHT=<weight>"
;
```

Parameters:

rtId Identifies the AID as a route with a string of up to 20 characters indicating the name of a route list in which the route is listed, and an associated index. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all routes configured in the system will be returned. A null value for the associated index (in RTRV) will return all routes for the given route list name.

Type: RtId
Range: <rtList>-[-<index>], where

rtList identifies the name of the applicable route list with a string of 1-20 characters;

index identifies the particular route in the applicable route list as an integer between zero and 32767.

Default value: none

bgn Identifies a previously defined bearer group, and its type, to associate with the route. You can enter a value for this parameter only when the value for the parameter *rtList* is “NULL”. A bearer group can be entered more than once in a route list, and can exist in multiple route lists.

Type: string
Range: <bgnType>-<bgnNum>, where

bgnType identifies the type of bearer group, a previously provisioned interface, with values of:

CASIF = CAS interface
GR303 = GR303 interface
ISDNIF = ISDN interface
MGCP = MGCP interface
TGN = BICC, CAS, ISUP, or SIP trunk

bgnNum identifies the bearer group, with values of:

CASIF: 1-2147483645
GR303: 1-32767
ISDNIF: 1-32767
MGCP: 1-100000
TGN: 1-9999

Default value: NULL

rtList Identifies a previously defined route list (for which the value of the parameter *alloc* is not "TIMEOFDAY") to associate with the route. You can enter a value for this parameter only when the value for the parameter *bgn* is "NULL".

Type: string
Range: 1-20 alphanumeric characters
Default value: NULL

dgtModKey Identifies, when the value of *treatType* is "REROUTE", the previously defined digit modification table and associated primary key used to change parameters for the route.

Type: string
Range: <dmLbl>-<primKey>, where:

dmLbl identifies the name of the applicable digit modification table with a string of 1-10 alphanumeric characters;

primKey identifies the primary key applicable to the specified digit modification table, with values of:

CALLTYPE = type of call (Class 5)
CDPN = called party number
CGPN = calling party number
CHRGN = charge number
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
CSI = Carrier Selection Information
GAP-{0-255} = Generic Address Parameter
GENDGTS-{0-31} = Generic Digits
GP-{0-255} = Generic Parameter
JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
REG-{1-6} = Register index
TNS = Transit Network Selection

Default value: NULL

weight Identifies the relative priority for the route, with a higher number indicating a greater priority, when the hunting method assigned to the route list (through *alloc* in ROUTE-LIST) is "DISTRIBUTION".

Type: integer
Range: {0-100}
Default value: 10

Input Examples:

```
DLT-ROUTE::RTLIST1-1;

ED-ROUTE::RTLIST1-1:::BGN=TGN-1;

ENT-ROUTE::RTLIST1-1:::BGN=TGN-1;

RTRV-ROUTE::RTLIST1-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "RTLIST-1:BGN=TGN-1,RTLIST=NULL,DGTMODKEY=NULL,
      WEIGHT=NULL"
;
```

Related Commands:

DLT/ED/ENT/RTRV-ROUTE-LIST

DLT/ED/ENT/RTRV-ROUTE-DIGITS

Commands:

DLT-ROUTE-DIGITS: Delete Route Digits

ED-ROUTE-DIGITS: Edit Route Digits

ENT-ROUTE-DIGITS: Enter Route Digits

RTRV-ROUTE-DIGITS: Retrieve Route Digits

Descriptions:

ROUTE-DIGITS determined the method for routing. It specifies a matching criterion for routing and what actions or destinations to use once a match is found. The following terminations are supported:

- A route list, in which case the call is offered to the routes in the route list according to the allocation method specified on the route list
- A treatment
- A new partition and key (digit modification), in which case routing with the designated call parameters starts on the specified partition and key
- A new translation plan, in which case only the routing portions of the translation plan take effect

Multiple screening and digit modification operations can be specified as part of the ROUTE-DIGITS command. These can be used to either change the parameters on termination, or to change the parameters before going to a new partition or translation plan.

DLT-ROUTE-DIGITS lets the user delete a routing method.

ED-ROUTE-DIGITS lets the user change a routing method. Use ED-ROUTE-DIGITS to modify the primary, secondary, and tertiary values applicable to the specified parameter (primary key) in the routing database table to which the routing method applies; the routing destination, the action taken as a result of routing; the minimum and maximum costs of the outgoing trunk group; and whether calls getting to this route are re-routed on call setup failure on a downstream switch.

ENT-ROUTE-DIGITS lets the user establish a routing method. Use this command to define the name of the routing database table; the parameter (primary key) to which the routing method applies; the primary, secondary, and tertiary values applicable to the specified parameter; the routing destination, the action taken as a result of routing; the minimum and maximum costs of the outgoing trunk group; and whether calls getting to this route are re-routed on call setup failure on a downstream switch.

RTRV-ROUTE-DIGITS lets the user retrieve the properties associated with a routing method. Use RTRV-ROUTE-DIGITS to retrieve the name of the routing database table; the parameter (primary key) to which the routing method applies; the primary, secondary, and tertiary values applicable to the specified parameter; the routing destination, the action taken as a result of routing; the minimum and maximum costs of the outgoing trunk group; and whether calls getting to this route are re-routed on call setup failure on a downstream switch.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-ROUTE-DIGITS:[TID]:<rtDigitsAid>:[CTAG];

ED-ROUTE-DIGITS:[TID]:<rtDigitsAid>:[CTAG]::
   [RTDEST=<rtDest>],[ACTN=<actn>],
   [MINCOST=<mincost>],[MAXCOST=<maxcost>],
   [REROUTE=<reRoute>];

ENT-ROUTE-DIGITS:[TID]:<rtDigitsAid>:[CTAG]::
   RTDEST=<rtDest>,[ACTN=<actn>],[MINCOST=<mincost>],
   [MAXCOST=<maxcost>],[REROUTE=<reRoute>];

RTRV-ROUTE-DIGITS:[TID]:[<rtDigitsAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<rtDigitsAid>:RTDEST=<rtDest>,ACTN=<actn>,
      MINCOST=<minCost>,MAXCOST=<maxcost>,
      REROUTE=<reroute>"
;
```

Parameters:

rtDigitsAid Identifies the AID as a routing method. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all routing methods configured in the system will be returned.

Type: RTDIGITSID

Range: <rtLbl>[-<primKey>[-<primKeyValue>[-<secKeyValue>[-<terKeyValue>]]]], where:

rtLbl identifies the name of the applicable routing table with a string of 1-10 alphanumeric characters;

primKey (optional only in RTRV) identifies the primary key applicable to the specified routing table, with values of:

- ABGN = Anchor Bearer Group Number (For some SIP referred calls, with our without replace, involving analysis of referred-to-number and subsequent routing, ABGN captures the ingress trunkgroup of the referred call.)
- BGN = Bearer Group Number (interface type)
- CALLTYPE = Type of call (Class 5)
- CDPN = Called party number
- CGPN = Calling party number
- CHRGN = Charge number
- CIP = Carrier Information Parameter (for ISUP only)
- CPC = Calling Party Category
- CSI = Carrier Selection Information
- GAP = Generic Address Parameter
- GENDGTS = Generic Digits
- JIP = Jurisdiction Information Parameter (NPANXX)
- LATA = Local Access & Transport Area
- OLI = Originating Line Information
- REG = Register index
- SCPTG = SCP-returned Trunk Group
- SUBSTATUS = Subscriber status (valid only when the value “SUB” is the first listed for *actnInfoAnlz* in TRANS-PLAN)
- TNS = Transit Network Selection

primKeyValue identifies the primary value applicable to the specified primary key parameter, with values of:

ABGN (refer/replace type):

- DEFAULT
- LOCAL
- NONE
- NOTPRSNT
- RMT

BGN:
- CASIF
- GR303
- ISDNIF
- MGCP
- TGN

CALLTYPE:
- CUTTHRU
- DEFAULT
- DIR_ASSISTANCE
- EMERGENCY
- INTERLATA
- INTERLATAOPREQ
- INTNATNUM
- INTNATOPREQ
- INTRALATA
- LOCALNUMBER
- LOCALOPREQ
- N11
- NATNUM
- NONUMOPREQ
- NOTPRSNT
- TOLLFREE

CDPN:
- ABBREVPVT = abbreviated private
- CAINVPN = Carrier AIN Virtual Private Network
- DEFAULT = matches all numbers
- INTNATNUM = international number
- INTNATOPREQ = international operator request
- NATNUM = national significant number
- NATOPREQ = national (long-distance) operator request
- NONUMCUTTHRU = no number provided, cut through to carrier
- NONUMOPREQ = no number provided, operator request
- NOTPRSNT = matches calls without a CDPN
- SUBOPREQ = subscriber (local) operator request
- SUBSNUM = subscriber number
- TESTLINE = test line test code
- UNKNOWN = unknown (default value);

CGPN:
- ABBREVPVT = abbreviated private
- DEFAULT = matches all numbers
- NOTPRSNT = matches calls without a CGPN
- NUNIINTNATNUM = non-unique international number
- NUNINATNUM = non-unique national number (only for CGPN)
- NUNISUBSNUM = non-unique subscriber number
- TESTLINE = test line test code
- UNIINTNATNUM = unique international number
- UNINATNUM = unique national number
- UNISUBSNUM = unique subscriber number

CHRGN:
- CDPNATNUM = ANI of the called party; national number
- CDPSUBSNUM = ANI of the called party; subscriber number
- CDPUNAVAIL = ANI of the called party; no number present
- CGPNATNUM = ANI of the calling party; national number
- CGPSUBSNUM = ANI of the calling party; subscriber number
- DEFAULT = matches all numbers
- NOTPRSNT = matches calls without a CHRGN
- UNAVAIL = ANI not available or not provided

CIP: 0-9999, DEFAULT, NOTPRSNT

CPC: 00-FF (hexadecimal) , DEFAULT, NOTPRSNT

CSI:
- PRESUBDIAL = presubscribed and input by calling party
- PRESUBNOTDIAL = presubscribed and not input by calling party
- PRESUBUNKNOWN = presubscribed, input by calling party undetermined
- NOTPRESUB = not presubscribed and input by calling party
- UNKNOWN = no indication

GAP: 0-255

GENDGTS: 0-31

JIP: 200000-999999, DEFAULT, NOTPRSNT

LATA: 100-999, 10000-99999, DEFAULT, NOTPRSNT

OLI: 00-FF (hexadecimal), DEFAULT, NOTPRSNT

REG: 1-6

SCPTG: up to 31 characters (representing digits), DEFAULT, NOTPRSNT

SUBSTATUS:
ACTIVE = In Service (subscriber is present in the CL4SUB table and active)
DEFAULT = matches all numbers
INACTIVE = Out Of Service (subscriber is present in the CL4SUB table and inactive)
NOTINDB = Not in database (subscriber is not in the CL4SUB table)
NOTPRSNT = matches calls without SUBSTATUS

TNS: 0-9999 (the carrier ID), DEFAULT, NOTPRSNT

secKeyValue identifies the secondary value applicable to the specified primary key parameter, with values of:

ABGN (interface type):
CASIF
DEFAULT
GR303
ISDNIF
MGCP
TGN

BGN: 1-31 digits, DEFAULT

CALLTYPE: No secondary value

CDPN: 1-31 hexadecimal digits, DEFAULT (set *secKeyValue* to DEFAULT if *primKeyValue* is DEFAULT or NOTPRSNT)

CGPN: 1-31 hexadecimal digits, DEFAULT (set *secKeyValue* to DEFAULT if *primKeyValue* is DEFAULT or NOTPRSNT)

CHRGN: 1-31 digits, DEFAULT (set *secKeyValue* to DEFAULT if *primKeyValue* is DEFAULT or NOTPRSNT)

CIP: No secondary value

CPC: No secondary value

CSI: No secondary value

GAP: 1-31 hexadecimal digits, DEFAULT, NOTPRSNT

GENDGTS: 1-31 digits, DEFAULT, NOTPRSNT

JIP: No secondary value

LATA: No secondary value

OLI: No secondary value

REG: 1-31 digits, DEFAULT, NOTPRSNT

SCPTG: No secondary value

SUBSTATUS: No secondary value

TNS: 0-255 (the CAS 0ZZ/1NX code or the ISUP circuit code), DEFAULT (set *secKeyValue* to DEFAULT if *primKeyValue* is DEFAULT or NOTPRSNT)

terKeyValue identifies the tertiary value (representing the protocol type) applicable only when the value of *primKey* is AGBN or TNS, with values of:

ABGN (interface or trunk group number):
CASIF: 1-2147483647
DEFAULT
GR303: 1-32767
ISDNIF: 1-2147483647
MGCP: 1-100000
TGN: 1-9999

TNS:
CAS
ISUP (default – set *terKeyValue* to ISUP if *secKeyValue* is DEFAULT)

Default value: none

rtDest Identifies the destination for routes using the routing method specified by the AID. The parameter is a combination of the type of destination and its name.

Type: string

Range: RTLIST-<rtList>, where *rtList* identifies the name of a route list with a string of 1-20 characters

RTKEY-<rtKey>, where *rtKey* has the form <rtLbl>-<primKey>, which identifies the name of the next partition with a string of 1-10 alphanumeric characters and the primary key applicable to it, as listed in the AID

TRANS-<transPlan>, where *transPlan* identifies the name of a translation plan with a string of 1-10 characters

TREAT-<treatment>, where *treatment* identifies the name of a treatment with a string of 1-10 characters

Default value: none

actn Identifies the actions performed that define the various manipulations on values that match this route. You can specify up to six actions, separated by ampersands (&).

Type: string
Range: <actn>[&<actn>[&<actn>[&<actn>[&<actn>[&<actn>]]]]], where *actn* can have one of the following forms:

DGTMODKEY-<dmLbl>-<primKey>, where

dmLbl identifies the name of the applicable digit modification table with a string of 1-10 alphanumeric characters;

primKey identifies the primary key applicable to the specified digit modification table, with values of:

CALLTYPE = type of call (Class 5)
CDPN = called party number
CGPN = calling party number
CHRGN = charge number
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
CSI = Carrier Selection Information
GAP-{0-255} = Generic Address Parameter
GENDGTS-{0-31} = Generic Digits
GP-{0-255} = Generic Parameter
JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
REG-{1-6} = Register index
TNS = Transit Network Selection

DGTSCRNKEY-<dgtScrnLbl>-<primKey>, where

dgtScrnLbl identifies the name of the applicable screening table with a string of 1-10 characters;

primKey identifies the primary key applicable to the specified screening table, with values of:

BGN = Bearer Group Number (interface type)
CALLTYPE = type of call (Class 5)
CDPN = called party number
CGPN = calling party number
CHRGN = charge number
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
CSI = Carrier Selection Information
GAP-{0-255} = Generic Address Parameter

GENDGTS-{0-31} = Generic Digits
JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
SUBSTATUS = Subscriber status (valid only when the value "SUB" is the first listed for the parameter *actnInfoAnlz* in TRANS-PLAN)
TNS = Transit Network Selection

Default value: NULL

minCost Identifies the minimum cost of the outgoing trunk group.

Type: integer
Range: {0-100}
Default value: 0

maxCost Identifies the maximum cost of the outgoing trunk group.

Type: integer
Range: {0-100}
Default value: 100

reRoute Identifies whether calls getting to this route are re-routed on call setup failure on a downstream switch.

Type: BoolYN
Range: N = calls are not rerouted
Y = calls are rerouted
Default value: N

Input Examples:

```
DLT-ROUTE-DIGITS::321RtTable-CSI;
ED-ROUTE-DIGITS::321RtTable-CSI:::
   RTDEST=RTLIST-IntNatRouteList;
```

In the following example for ENT-ROUTE-DIGITS:

1. Calls with CPC of Emergency are routed to the 911RouteList. Carrier is inspected for other calls.

```
ENT-ROUTE-DIGITS::Global-CPC-06:::
   RtDest=RTLIST-911RouteList;
ENT-ROUTE-DIGITS::Global-CPC:::
   RtDest=RTKEY-Carrier-TNS;
ENT-ROUTE-DIGITS::Global-CPC-NOTPRSNT:::
   RtDest=RTKEY-Carrier-TNS;
```

2. Calls to carrier 0321 are routed to 0321RouteList

```
ENT-ROUTE-DIGITS::Carrier-TNS-0321:::
   RouteList=0321RouteList;
```

```
ENT-ROUTE-DIGITS::Carrier-TNS-9898:::
   RtDest=RTKEY-321RtTable-CDPN;
```

3. Domestic calls to carrier 9898 are routed according to Called Party Number.

```
ENT-ROUTE-DIGITS::321RtTable-TNS-9898-1-ISUP:::
   RtDest=RTKEY-321RtTable-CSI;
```

```
ENT-ROUTE-DIGITS::321RtTable-TNS-9898-0-ISUP:::
   RtDest=RTKEY-321RtTable-CSI;
```

```
ENT-ROUTE-DIGITS::321RtTable-TNS-9898-138-CAS:::
   RtDest=RTKEY-321RtTable-CSI;
```

```
ENT-ROUTE-DIGITS::321RtTable-TNS-9898-158-CAS:::
   RtDest=RTKEY-321RtTable-CSI;
```

4. Casually dialed calls to 9898 are given treatment 666.

```
ENT-ROUTE-DIGITS::321RtTable-CSI-NOTPRESUBDIAL:::
   RtDest=TREAT-Treat666;
```

5. International calls to carrier 9898 are routed to IntNatRouteList, except if it is casually dialed.

```
ENT-ROUTE-DIGITS::321RtTable-CSI:::
   RtDest=RTLIST-IntNatRouteList;
```

```
RTRV-ROUTE-DIGITS::321RtTable-CSI;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "321RtTable-CSI:RTDEST=RTLIST-IntNatRouteList,
      ACTN=NULL,MINCOST=0,MAXCOST=0,REROUTE=N"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-ROUTE-LIST

Commands:

DLT-ROUTE-LIST: Delete Route List

ED-ROUTE-LIST: Edit Route List

ENT-ROUTE-LIST: Enter Route List

RTRV-ROUTE-LIST: Retrieve Route List

Descriptions:

DLT-ROUTE-LIST lets the user delete a route list.

ED-ROUTE-LIST lets the user change the properties associated with a route list. Use ED-ROUTE-LIST to modify the route list's allocation algorithm used when hunting for a route in this route list, and the treatment to use if the call setup on this route fails because no bearers are available.

ENT-ROUTE-LIST lets the user establish a list of routes with the hunting method for selecting a route on the list and the treatment to use if the call setup on this route fails because no bearers are available. Use ENT-ROUTE-LIST to define the route list's name, allocation algorithm used when hunting for a route in this route list, and the treatment to use if the call setup on this route fails because no bearers are available.

RTRV-ROUTE-LIST lets the user retrieve the properties associated with a route list. Use RTRV-ROUTE-LIST to retrieve the route list's allocation algorithm used when hunting for a route in this route list, and the treatment to use if the call setup on this route fails because no bearers are available.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-ROUTE-LIST:[TID]:<rtListAid>:[CTAG];

ED-ROUTE-LIST:[TID]:<rtListAid>:[CTAG]::
   [ALLOC=<alloc>],[OVRFLOWTREAT=<ovrFlowTreat>];

ENT-ROUTE-LIST:[TID]:<rtListAid>:[CTAG]::
   [ALLOC=<alloc>],[OVRFLOWTREAT=<ovrFlowTreat>];

RTRV-ROUTE-LIST:[TID]:[<rtListAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<rtListAid>:ALLOC=<alloc>,
      OVRFLOWTREAT=<ovrFlowTreat>"
;
```

Parameters:

rtListAid Identifies the AID as a route list. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all route lists configured in the system will be returned.

Type: string
Range: 1-20 alphanumeric characters
Default value: none

alloc Identifies the resource allocation method (hunting type) used when hunting for a route in this route list.

Type: enum
Range: ASCENDING = Allocates the lowest numbered available route in the route list
CIRCULAR = Allocates the next free route, in ascending order, following the last route selected
DESCENDING = Allocates the highest numbered available route in the route list
DISTRIBUTION = Allocates routes based on the value of the parameter *weight* for each route in the route list
LEASTCOST = Allocates the least cost route available, based on parameters configured against the trunk group
RANDOM = Allocates the next free route, in ascending order, based on a random entry into the list of resources. After the first allocation from that numbered list of resources, subsequent attempts to find a free resource use the circular method.
TIMEOFDAY = This hunting type lets you enter route schedules, rather than routes, into the route list
Default value: CIRCULAR

ovrFlowTreat Identifies the treatment to use if the call setup on a route on this route list fails because no bearers are available.

Type: string
Range: up to 10 alphanumeric characters
Default value: NULL

Input Examples:

```
DLT-ROUTE-LIST::S7tgrp1Btls;

ED-ROUTE-LIST::S7tgrp1Btls:::HUNTING=CIRCULAR,
   OVRFLOWTREAT=NULL;

ENT-ROUTE-LIST::S7tgrp1Btls:::HUNTING=CIRCULAR,
   OVRFLOWTREAT=NULL;

RTRV-ROUTE-LIST::S7tgrp1Btls;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "S7tgrp1Btls:ALLOC=CIRCULAR,OVRFLOWTREAT=NULL"
;
```

Related Commands:

```
DLT/ED/ENT/RTRV-ROUTE
DLT/ED/ENT/RTRV-ROUTE-SCHED
```

DLT/ED/ENT/RTRV-ROUTE-SCHED

Commands:

DLT-ROUTE-SCHED: Delete Route Schedule

ED-ROUTE-SCHED: Edit Route Schedule

ENT-ROUTE-SCHED: Enter Route Schedule

RTRV-ROUTE-SCHED: Retrieve Route Schedule

Descriptions:

The Route Schedule command lets you add a schedule to a route. The route will be in a particular schedule only after you've enabled the schedule profile. Date-specific profiles are applied to a schedule first, day specific profiles second, weekend weekday profiles third, and lastly the default profile that is enabled at all times.

DLT-ROUTE-SCHED lets the user delete a route schedule from the system.

ED-ROUTE-SCHED lets the user change the route list associated with a route schedule.

ENT-ROUTE-SCHED lets the user establish a route schedule associated with a schedule profile, and apply it to a route list. ENT-ROUTE-SCHED will not work unless ENT-PRFL-SCHED and ENT-ROUTE-LIST have already been issued.

RTRV-ROUTE-SCHED lets the user retrieve the name of the route list associated with a route schedule.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-ROUTE-SCHED:[TID]:<rtSchedAid>:[CTAG];

ED-ROUTE-SCHED:[TID]:<rtSchedAid>:[CTAG]::
   RTLIST=<rtListName>;

ENT-ROUTE-SCHED:[TID]:<rtSchedAid>:[CTAG]::
   RTLIST=<rtListName>;

RTRV-ROUTE-SCHED:[TID]:[<rtSchedAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<rtSchedAid>:RTLIST=<rtListName>"
;
```

Parameters:

rtSchedAid Identifies the AID as the name of the route schedule (previously defined by ROUTE-LIST and in which the value of *alloc* is TIMEOFDAY), and the name of the schedule profile applied to it. The schedule profile, previously defined by PRFL-SCHED, specifies the dates and times to use the route list. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all route schedules configured in the system, their associated schedule profiles and the route lists to which they belong, will be returned.

Type: RouteSchedAid
Range: <schedNameString>-<prflNameString>, where
schedNameString = up to 20 alphanumeric characters, and
prflNameString = up to 20 alphanumeric characters, including “DEFAULT” (which must be entered prior to any user-defined schedule profile names).
Default value: none

rtListName Identifies the name of the route list, previously defined by ROUTE-LIST and in which the value of *alloc* cannot be TIMEOFDAY, to which the schedule applies.

Type: string
Range: up to 20 alphanumeric characters
Default value: none

Input Examples:

```
DLT-ROUTE-SCHED::schedlist-MON_PRFL;

ED-ROUTE-SCHED::schedlist-MON_PRFL:::
   RTLIST=rtlist_mon;

ENT-PRFL-SCHED::MON_PRFL::MON=1200-2400;
ENT-ROUTE-LIST::rtlist_def:::ALLOC=ascending;
ENT-ROUTE-LIST::rtlist_mon:::ALLOC=ascending;
ENT-ROUTE-LIST::schedlist:::ALLOC=TIMEOFDAY;
ENT-ROUTE-SCHED::schedlist-DEFAULT:::
   RTLIST=rtlist_def;
ENT-ROUTE-SCHED::schedlist-MON_PRFL::
   RTLIST=rtlist_mon;

RTRV-ROUTE-SCHED::schedlist-MON_PRFL;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "schedlist-MON_PRFL:RTLIST=rtlist_mon "
;
```

Related Commands:

```
DLT/ED/ENT/RTRV-PRFL-SCHED
DLT/ED/ENT/RTRV-ROUTE-LIST
```

DLT/ED/ENT/RTRV-SUBSCRIBER-CL4

Commands:

DLT-SUBSCRIBER-CL4: Delete Subscriber Class 4

ED-SUBSCRIBER-CL4: Edit Subscriber Class 4

ENT-SUBSCRIBER-CL4: Enter Subscriber Class 4

RTRV-SUBSCRIBER-CL4: Retrieve Subscriber Class 4

Descriptions:

DLT-SUBSCRIBER-CL4 lets the user delete an association between a subscriber and a carrier or a call type.

ED-SUBSCRIBER-CL4 lets the user change the association between a subscriber and a carrier or a call type. Use this command to change the new or pseudo carrier assigned for the subscriber's call type, an alternative number for billing records, the authorization code mode of operation, the length of the account code, the authorization code or the list containing the authorization code, the minimum and maximum trunk group costs allowed for routing a call from the subscriber, the screening operation to perform, and the status of the subscriber.

ENT-SUBSCRIBER-CL4 lets the user establish an association between a subscriber and a carrier or a call type. Use this command to define the subscriber and the call type or carrier to which the subscriber assignment parameters apply, the new or pseudo carrier assigned for the subscriber's call type, an alternative number for billing records, the authorization code mode of operation, the length of the account code, the authorization code or the list containing the authorization code, the minimum and maximum trunk group costs allowed for routing a call from the subscriber, the screening operation to perform, and the status of the subscriber.

RTRV-SUBSCRIBER-CL4 lets the user retrieve the attributes of an association between a subscriber and a carrier or a call type.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-SUBSCRIBER-CL4:[TID]:<cl4SubId>:[CTAG];

ED-SUBSCRIBER-CL4:[TID]:<cl4SubId>:[CTAG]::
   [DFLTCAR=<dfltCar>],[BILLINGNUM=<billingNum>],
   [AUTHMODE=<authMode>],[ACNTCODELEN=<acntCodeLen>],
   [AUTHCODE=<authCode>],[AUTHLIST=<authList>],
   [MINCOST=<minCost>],[MAXCOST=<maxCost>],
   [DGTSCRNKEY=<dgtScrnKey>],[SUBSTATUS=<subStatus>];

ENT-SUBSCRIBER-CL4:[TID]:<cl4SubId>:[CTAG]::
   [DFLTCAR=<dfltCar>],[BILLINGNUM=<billingNum>],
   [AUTHMODE=<authMode>],[ACNTCODELEN=<acntCodeLen>],
   [AUTHCODE=<authCode>],[AUTHLIST=<authList>],
   [MINCOST=<minCost>],[MAXCOST=<maxCost>],
   [DGTSCRNKEY=<dgtScrnKey>],[SUBSTATUS=<subStatus>];

RTRV-SUBSCRIBER-CL4:[TID]:[<cl4SubId>]:[CTAG]::;
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<cl4SubId>:DFLTCAR=<dfltcar>,
      BILLINGNUM=<billingNum>,AUTHMODE=<authMode>,
      ACNTCODELEN=<acntCodeLen>,AUTHCODE=<authCode>,
      AUTHLIST=<authList>,MINCOST=<minCost>,
      MAXCOST=<maxCost>,DGTSCRNKEY=<dgtScrnKey>,
      SUBSTATUS=<subStatus>"
;
```

Parameters:

cl4SubId Identifies the AID as the association between a subscriber and a carrier or a call type. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all such associations configured in the system will be returned.

Type: cl4SubId
Range: <subscriberId>[-<callType>] or <subscriberId>[-<carrrier>], where:

subscriberId identifies the subscriber with a string of exactly 10 digits;

callType (optional only in RTRV) identifies the call type for which the subscriber assignment parameters apply, with values of:

DEFAULT = all call types (default value)
INTERLATA
INTERNATIONAL
INTRALATA

carrier identifies the carrier for which the subscriber assignment parameters apply as a string of 1-4 digits with a default of “DEFAULT”

Default value: none

dfltCar Identifies the new (or pseudo) carrier assigned when a call type is associated with the subscriber.

Type: string
Range: {0-9999}
Default value: NULL

billingNum Identifies an alternative telephone number for billing records, optionally provided when the subscriber prefers charges to be applied to another number.

Type: string
Range: exactly 10 digits
Default value: value of *subscriberid*

authMode Identifies the mode of operation for an authorization code.

Type: enum
Range: ACNTAUTH = account codes and authorization codes
NONE = authorization code not required
ONEPIN = one PIN code per authorization code
ONLYACNT = only account codes
ONLYAUTH = only authorization codes
ONLYPIN = only PIN codes
Default value: NONE

acntCodeLen Identifies the account code length. The default value "0" disables the option; however, the value cannot be "0" when the value of *authMode* is "ACNTAUTH" or "ONLYACNT".

Type: integer
Range: {0-16}
Default value: 0

authCode Identifies the name of the authorization code when there is only one valid code. The value must be "NULL" when *authList* has a valid non-null value.

Type: string
Range: up to 16 digits (including "*", but not as the first digit)
Default value: NULL

authList Identifies the name of the authorization list, previously established via ENT-LIST-AUTHCODE. The value must be "NULL" when *authCode* has a valid non-null value.

Type: string
Range: up to 20 characters
Default value: NULL

minCost Identifies the minimum cost of the outgoing trunk group for routing a call from the subscriber.

Type: integer
Range: {0-100}
Default value: 0

maxCost Identifies the maximum cost of the outgoing trunk group for routing a call from the subscriber.

Type: integer
Range: {0-100}
Default value: 100

dgtScrnKey Identifies the screening operation to apply to the subscriber by defining the applicable digit screening table and associated primary key. You must refer to a valid screening table (established with ENT-DIGIT-SCREEN) with the applicable primary key "SUBSTATUS" when the value of the parameter *subStatus* requires an action (for example, providing a treatment when the value of *subStatus* is "INACTIVE"). The parameter *resultType* in DIGIT-SCREEN defines the possible actions resulting from screening.

Type: string
Range: <dgtScrnLbl>-<primKey>, where:

dgtScrnLbl identifies the name of the applicable screening table with a string of 1-10 characters;

primKey identifies the primary key applicable to the specified screening table, with values of:

BGN = Bearer Group Number (interface type)
CALLTYPE = type of call (Class 5)
CDPN = called party number
CGPN = calling party number
CHRGN = charge number
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
CSI = Carrier Selection Information
GAP-{0-255} = Generic Address Parameter
GENDGTS-{0-31} = Generic Digits
JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
SUBSTATUS = Subscriber status (valid only when the value "SUB" is the first listed for the parameter *actnInfoAnlz* in TRANS-PLAN)
TNS = Transit Network Selection

Default value: NULL

subStatus Identifies the status of the telephone number representing the subscriber.

Type: string
Range: ACTIVE = In Service (subscriber is present in the CL4SUB table and active)
INACTIVE = Out Of Service (subscriber is present in the CL4SUB table and inactive)
Default value: NULL

Input Examples:

```
DLT-SUBSCRIBER-CL4::5088048202-INTERNATIONAL;

ED-SUBSCRIBER-CL4::5088048202-INTERNATIONAL:::
   DFLTCAR=2,SUBSTATUS=INACTIVE;

ENT-SUBSCRIBER-CL4::5088048202-INTERNATIONAL:::
   DFLTCAR=1,BILLINGNUM=5084800909;

RTRV-SUBSCRIBER-CL4::5088048202-INTERNATIONAL;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "5088048202-INTERNATIONAL:DFLTCAR=1,
      BILLINGNUM=5084800909,AUTHMODE=NONE,
      ACNTCODELEN=0,AUTHCODE=NULL,AUTHLIST=AUTHLIST4,
      MINCOST=0,MAXCOST=100,DGTSCRNKEY=NULL,
      SUBSTATUS=ACTIVE"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-TRANS-PLAN

Commands:

DLT-TRANS-PLAN: Delete Translation Plan

ED-TRANS-PLAN: Edit Translation Plan

ENT-TRANS-PLAN: Enter Translation Plan

RTRV-TRANS-PLAN: Retrieve Translation Plan

Descriptions:

A translation plan specifies the following:

- A set of routing partitions or labels used for calls using this translation plan. If routing fails on the first <routing label>-<routing key> combination, the next <routing label>-<routing key> combination is used.
- The dial plan used for calls using this translation plan. The dial plan specifies the valid called party numbers. Having a NULL dial plan allows all calls to pass validation.
- Various screening and digit modification operations to perform at the InfoCollected PIC and the InfoAnalyzed PIC. The actions at the InfoCollected PIC allow the processing of authorization codes, call screening, and normalizing parameters before dial plan analysis is done. These actions also allow for changing the translation plan depending on incoming call parameters. Actions at the InfoAnalyzed PIC allow for screening out and normalizing parameters before doing SCP lookups or routing.
- The failure condition table to use for treating far side release of calls.

Translation plans can be attached to trunk groups. Line interfaces currently always use the DEFAULT translation plan. Trunk groups that have similar translation requirements can use the same translation plan.

DLT-TRANS-PLAN lets the user delete a translation plan that associates a list of route tables with a dial (numbering) plan.

ED-TRANS-PLAN lets the user change a translation plan that associates a list of route tables with a dial (numbering) plan. Use this command to change the list(s) of route tables, the dialing plan applied before call is set up, the actions performed at the InfoCollected and InfoAnalyzed PICs, the release failure condition profile name, and the alternate translation plan to use for emergency procedures.

ENT-TRANS-PLAN lets the user establish a translation plan that associates a list of route tables with a dial (numbering) plan. Use this command to define the translation plan name, the list(s) of route tables, the dialing plan applied before call is set up, the actions performed at the InfoCollected and InfoAnalyzed PICs, the release failure condition profile name, and the alternate translation plan to use for emergency procedures.

RTRV-TRANS-PLAN lets the user retrieve the attributes of a translation plan that associates a list of route tables with a dial (numbering) plan.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-TRANS-PLAN:[TID]:<transPlan>:[CTAG];

ED-TRANS-PLAN:[TID]:<transPlan>:[CTAG]::
   [RTKEYLIST=<rtKeyList>],[DIALPLAN=<dialPlan>],
   [ACTNINFOCOL=<actninfocol>],
   [ACTNINFOANLZ=<actninfoanlz>],
   [RLSFAILCNDPRFL=<rlsFailCndPrfl>],
   [ALTPLAN=<altPlan>];

ENT-TRANS-PLAN:[TID]:<transPlan>:[CTAG]::
   RTKEYLIST=<rtKeyList>,[DIALPLAN=<dialPlan>],
   [ACTNINFOCOL=<actnInfoCol>],
   [ACTNINFOANLZ=<actnInfoAnlz>],
   [RLSFAILCNDPRFL=<rlsFailCndPrfl>],
   [ALTPLAN=<altPlan>];

RTRV-TRANS-PLAN:[TID]:[<transPlan>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<transPlan>:RTKEYLIST=<rtKeyList>,
      DIALPLAN=<dialPlan>,ACTNINFOCOL=<actninfocol>,
      ACTNINFOANLZ=<actninfoanlz>,
      RLSFAILCNDPRFL=<rlsFailCndPrfl>,
      ALTPLAN=<altPlan>"
;
```

Parameters:

transPlan Identifies the AID as a translation plan. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all translation plans configured in the system will be returned.

Type: string
Range: 1-10 alphanumeric characters
Default value: none

rtKeyList Identifies the list of route tables applicable to the translation plan. You can specify up to three route tables, separated by ampersands (&), which are accessed in the order listed until the given key is matched.

Type: TransPlanAid
Range: <rtKey>[&<rtKey>[&<rtKey>]], where *rtKey* has the form <rtLbl>-<primKey>):

rtLbl identifies the name of the applicable route table with a string of 1-10 alphanumeric characters;

primKey identifies the primary key applicable to the specified route table as a type of call parameter, with values of:

ABGN = Anchor Bearer Group Number (For some SIP referred calls, with our without replace, involving analysis of referred-to-number and subsequent routing, ABGN captures the ingress trunkgroup of the referred call.)
BGN = Bearer Group Number (interface type)
CALLTYPE = type of call (Class 5)
CDPN = called party number
CGPN = calling party number
CHRGN = charge number
CIP = Carrier Information Parameter (for ISUP only)
CSI = Carrier Selection Information
CPC = Calling Party Category
GAP-{0-255} = Generic Address Parameter
GENDGTS-{0-31} = Generic Digits
JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
SCPTG = SCP-returned Trunk Group
TNS = Transit Network Selection

Default value: none

dialPlan Identifies the dial, or numbering, plan applied before the call is set up.

Type: enum
Range: NANP = North American Numbering Plan
NONE = no dial plan
Default value: NANP

actnInfoCol Identifies the actions performed at the InfoCollected PIC prior to number or dial plan analysis, and which define the various manipulations to perform on this partition. You can specify up to six actions, separated by ampersands (&).

Type: string
Range: <actn>[&<actn>[&<actn>[&<actn>[&<actn>[&<actn>]]]]], where *actn* can have one of the following forms:

DGTMODKEY-<dmLbl>-<primKey>, where

dmLbl identifies the name of the applicable digit modification table with a string of 1-10 alphanumeric characters;

primKey identifies the primary key applicable to the specified digit modification table, with values of:
CALLTYPE = type of call (Class 5)
CDPN = called party number
CGPN = calling party number
CHRGN = charge number
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
CSI = Carrier Selection Information
GAP-{0-255} = Generic Address Parameter
GENDGTS-{0-31} = Generic Digits
GP-{0-255} = Generic Parameter
JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
REG-{1-6} = Register index
TNS = Transit Network Selection

DGTSCRNKEY-<dgtScrnLbl>-<primKey>, where

dgtScrnLbl identifies the name of the applicable screening table with a string of 1-10 characters;

primKey identifies the primary key applicable to the specified screening table, with values of:
BGN = Bearer Group Number (interface type)
CALLTYPE = type of call (Class 5)
CDPN = called party number

CGPN = calling party number
CHRGN = charge number
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
CSI = Carrier Selection Information
GAP-{0-255} = Generic Address Parameter
GENDGTS-{0-31} = Generic Digits
JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
SUBSTATUS = Subscriber status (valid only when the value "SUB" is the first listed for the parameter *actnInfoAnlz* in TRANS-PLAN)
TNS = Transit Network Selection

Default value: NULL

actnInfoAnlz Identifies the actions performed at the InfoAnalyzed PIC prior to AIN trigger analysis, and which define the various manipulations to perform on this partition. You can specify up to six actions, separated by ampersands (&).

Type: string

Range: <actn>[&<actn>[&<actn>[&<actn>[&<actn>[&<actn>]]]]], where *actn* has the form [SUB] & [DGTSCRNKEY-<dgtScrnLbl>-<primKey>] [&][DGTMODKEY-<dgtModLbl>-<primKey>], where:

SUB causes the collection of subscriber information for subsequent screening or routing

DGTSCRNKEY-<dgtScrnLbl>-<primKey>, in which

dgtScrnLbl identifies the name of the applicable screening table with a string of 1-10 characters;

primKey identifies the primary key applicable to the specified screening table, with values of:

BGN = Bearer Group Number (interface type)
CALLTYPE = type of call (Class 5)
CDPN = called party number
CGPN = calling party number
CHRGN = charge number
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
CSI = Carrier Selection Information

GAP-{0-255} = Generic Address Parameter
GENDGTS-{0-31} = Generic Digits
JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
SUBSTATUS = Subscriber status (valid only when the value "SUB" is the first listed for *actnInfoAnlz* in TRANS-PLAN)
TNS = Transit Network Selection

DGTMODKEY-<dmLbl>-<primKey>, in which

dmLbl identifies the name of the applicable digit modification table with a string of 1-10 alphanumeric characters;

primKey identifies the primary key applicable to the specified digit modification table, with values of:
CALLTYPE = type of call (Class 5)
CDPN = called party number
CGPN = calling party number
CHRGN = charge number
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
CSI = Carrier Selection Information
GAP-{0-255} = Generic Address Parameter
GENDGTS-{0-31} = Generic Digits
GP-{0-255} = Generic Parameter
JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
REG-{1-6} = Register index
TNS = Transit Network Selection

Default value: NULL

rlsFailCndPrfl Identifies the release failure condition profile, which overrides the default failure condition profile for this translation plan.

Type: string
Range: 1-10 alphanumeric characters
Default value: NULL

altPlan Identifies the alternate translation plan to use for emergency procedures, the parameters for which override those for the translation plan defined by the AID.

Type: string
Range: 1-10 alphanumeric characters
Default value: NULL

Input Examples:

```
DLT-TRANS-PLAN::TRANSPLAN1;

ED-TRANS-PLAN::TRANSPLAN1:::
   RTKEYLIST=CDPNRT-CDPN&NEWRT-OLI,DIALPLAN=NANP;

ENT-TRANS-PLAN::TRANSPLAN1:::
   RTKEYLIST=CDPNRT-CDPN&NEWRT-OLI,DIALPLAN=NANP;

RTRV-TRANS-PLAN::TRANSPLAN1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "TRANSPLAN1:RTKEYLIST=CDPNRT-CDPN&NEWRT-OLI,
      DIALPLAN=NANP,ACTINFOCOL=NULL,ACTINFOANLZ=NULL,
      RLSFAILCNDPRFL=NULL,ALTPLAN=NULL"
;
```

Related Commands:

```
DLT/ED/ENT/RTRV-ROUTE-DIGITS
TEST-TRANS
```

DLT/ED/ENT/RTRV-TRANS-SCHED

Commands:

DLT-TRANS-SCHED: Delete Translation Schedule

ED-TRANS-SCHED: Edit Translation Schedule

ENT-TRANS-SCHED: Enter Translation Schedule

RTRV-TRANS-SCHED: Retrieve Translation Schedule

Descriptions:

A translation schedule, through its associated schedule profile, determines the dates and times to use a translation plan. Like translation plans, you can attach translation schedules to trunk groups.

DLT-TRANS-SCHED lets the user delete a translation plan schedule that chooses translations based on the time of day.

ED-TRANS-SCHED lets the user change a translation plan schedule that chooses translations based on the time of day. Use this command to change the schedule profile applied to the translation plan schedule, and the translation plan to which the schedule applies.

ENT-TRANS-SCHED lets the user establish a translation plan schedule that chooses translations based on the time of day. Use this command to define the translation plan schedule name, the schedule profile applied to the translation plan schedule, and the translation plan to which the schedule applies.

RTRV-TRANS-SCHED lets the user retrieve the attributes of a translation plan schedule that chooses translations based on the time of day.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-TRANS-SCHED:[TID]:<transSchedAid>:[CTAG];

ED-TRANS-SCHED:[TID]:<transSchedAid>:[CTAG]::
   TRANSPLAN=<transPlan>;

ENT-TRANS-SCHED:[TID]:<transSchedAid>:[CTAG]::
   TRANSPLAN=<transPlan>;

RTRV-TRANS-SCHED:[TID]:[<transSchedAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<transSchedAid>:TRANSPLAN=<transPlan>"
;
```

Parameters:

transSchedAid Identifies the AID as a translation plan schedule that chooses translations based on the time of day. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all translation plan schedules configured in the system will be returned.

Type: TransSchedAid
Range: <transSched>[-<prflName>], where:

transSched identifies the name of the translation plan schedule with a string of 1-10 alphanumeric characters (Translation plan schedules and translation plans cannot have the same names.);

prflName (optional only in RTRV) identifies, with a string of 1-20 alphanumeric characters or the value “DEFAULT”, the name of the routing schedule profile, previously defined by PRFL-SCHED, that determines the times and dates to use the listed translation plan.

Default value: none

transPlan Identifies the translation plan to which the schedule applies.

Type: string
Range: 1-10 alphanumeric characters
Default value: none

Input Examples:

```
DLT-TRANS-SCHED::XSCHED1-PROFILE1;

ED-TRANS-SCHED:XSCHED1-PROFILE1:::
   TRANSPLAN=TRANSPLAN1;

ENT-TRANS-SCHED::XSCHED1-PROFILE1:::
   TRANSPLAN=TRANSPLAN1;

RTRV-TRANS-SCHED::XSCHED1-PROFILE1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "XSCHED1-PROFILE1:TRANSPLAN=TRANSPLAN1;"
;
```

Related Commands:

```
DLT/ED/ENT/RTRV-PRFL-SCHED
DLT/ED/ENT/RTRV-ROUTE-SCHED
```

DLT/ED/ENT/RTRV-TREATMENT

Commands:

DLT-TREATMENT: Delete Treatment

ED-TREATMENT: Edit Treatment

ENT-TREATMENT: Enter Treatment

RTRV-TREATMENT: Retrieve Treatment

Descriptions:

Treatments allow special handling, including exception handling. For example, a treatment can play the time of day announcement, which is special handling, or it can release a call with a specific release cause, which is exception handling.

Lucent supports three types of treatments:

- Announcement: This type of treatment requires the announcement be configured using the ENT-AUDIO-ANNC command, can provide answer indication to a preceding switch, and allows associating a set of arguments with the announcement.
- Release: This type of treatment either maps an internal condition to another treatment, or it releases the call with a specific cause code.
- Reroute: This type of treatment uses digit modifications to change parameters of the call, and optionally, can restart routing from another partition with another key.

There are currently three supported sources from which a call may go to a treatment:

- From ROUTE-DIGITS: Any specified combination of call parameters can be routed to a treatment; for example, if a specified number is for the time of day service, the number can be routed to a treatment.
- From DIGIT-SCREEN: Screening can point to a treatment. The advantage of doing treatment from screening, as opposed to treatment from routing, is that from screening, you can execute a treatment with the next treatment being “CONTINUE”, which then terminates the call normally.
- From PRFL-FAILCND: You can use a treatment to provide special handling on call failure. Use this feature to tailor customer-specific announcements and tones.

DLT-TREATMENT lets the user delete a treatment.

ED-TREATMENT lets the user change the attributes of a treatment. Use this command to change the type of treatment, the announcement to play (when required) and its associated arguments, whether to send an ansInd message to the originating switch when the announcement starts, the failure condition that triggers the treatment, the digit modification table name and primary key used to change parameters for a reroute, the routing table name and primary key used for rerouting, and the treatment to call next.

ENT-TREATMENT lets the user establish a treatment. Use this command to define the treatment name, the type of treatment, the announcement to play (when required) and its associated arguments, whether to send an ansInd message to the originating switch when the announcement starts, the failure condition that triggers the treatment, the digit modification table name and primary key used to change parameters for a reroute, the routing table name and primary key used for rerouting, and the treatment to call next.

RTRV-TREATMENT lets the user retrieve the attributes of a treatment.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-TREATMENT:[TID]:<treatmentId>:[CTAG];

ED-TREATMENT:[TID]:<treatmentId>:[CTAG]::
   [TREATTYPE=<treatType>],[ANNCID=<anncId>],
   [ANNCARGS=<anncArgs>],[ANSIND=<ansInd>],
   [FAILCND=<failCnd>],[DGTMODKEY=<dgtModKey>],
   [RTKEY=<rtKey>],[NEXTTREAT=<nextTreat>];

ENT-TREATMENT:[TID]:<treatmentId>:[CTAG]::
   TREATTYPE=<treatType>,[ANNCID=<anncId>],
   [ANNCARGS=<anncArgs>],[ANSIND=<ansInd>],
   [FAILCND=<failCnd>],[DGTMODKEY=<dgtModKey>],
   [RTKEY=<rtKey>],[NEXTTREAT=<nextTreat>];

RTRV-TREATMENT:[TID]:[<treatmentId>]:[CTAG];
```

Output Format:

```
      SID DATE TIME
M     CTAG COMPLD
      "<treatmentId>:TREATTYPE=<treatType>,
         ANNCID=<anncId>,[ANNCARGS=<anncArgs>],
         [ANSIND=<ansInd>],[FAILCND=<failCnd>],
         [DGTMODKEY=<dgtModKey>],[RTKEY=<rtKey>],
         [NEXTTREAT=<nextTreat>"
;
```

Parameters:

treatmentId Identifies the AID as a treatment. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all treatments configured in the system will be returned.

Type: string
Range: 1-10 alphanumeric characters
Default value: none

treatType Identifies the type of treatment.

Type: enum
Range: ANNC = play an announcement
FAILCND = provide special handling on call failure
REROUTE = use digit modifications to change parameters of the call to restart routing
Default value: none

anncId Identifies the internal designator for an audio announcement. Use RTRV-AUDIO-ANNC to determine the configured audio announcements. If an audio announcement requires variable arguments (determined with RTRV-AUDIO-VMSG) such as TIME (TME_12) or PhoneNumber (DIG_NDN), provide the source of the variable fields in *anncArgs*.

Type: integer
Range: {1-32766}
Default value: NULL

anncArgs Identifies a list of arguments applicable to the announcement. You can specify up to six arguments, separated by ampersands (&).

Type: string

Range: <arg>[&<arg>[&<arg>[&<arg>[&<arg [&<arg>]]]]], where *arg* has the form <argKey>-<argValue>):

argKey identifies the primary key applicable to the specified announcement, with values of:

- CDPN = called party number
- CGPN = calling party number
- CHRGN = charge number
- DATE = date
- DIG = digits
- DUR = duration
- MTH = month
- NUMCARD = cardinal number
- NUMORD = ordinal number
- TIME = time

argValue identifies the value applicable to the specified primary key, with values of:

- CDPN (optional): digit modification table name (1-10 alphanumeric characters), previously defined by ENT-DIGITMOD-DN
- CGPN (optional): digit modification table name (1-10 alphanumeric characters), previously defined by ENT-DIGITMOD-DN
- CHRGN (optional): digit modification table name (1-10 alphanumeric characters), previously defined by ENT-DIGITMOD-DN
- DATE (mandatory): YYYYMMDD, MMDD, or "CURRDATE"
- DIG (mandatory): string of 1-10 digits (presently not implemented)
- DUR (mandatory): 0-35999999 seconds (played as hours, minutes, and seconds)
- MTH (mandatory): {1-12}
- NUMCARD (mandatory): {0-9999}
- NUMORD (mandatory): {1-31} (played as 1st through 31st)
- TIME (mandatory): HHMM or "CURRTIME"

Default value: NULL

ansInd Identifies, when the value of *treatType* is "ANNC", whether to send an ansInd message to the previous switch when the announcement starts.

Type: BoolYN
Range: Y = send ansInd message
N = do not send ansInd message
Default value: N

failCnd Identifies, when the value of *treatType* is "FAILCND", the previously defined failure condition that triggers the treatment. Use RTRV-FAILCND to determine the existing conditions. This parameter usually applies to routing to a treatment, which then uses a condition.

Type: string
Range: 1-21 alphanumeric characters
Default value: NULL

dgtModKey Identifies, when the value of *treatType* is "REROUTE", the digit modification table and associated primary key used to change parameters for a reroute.

Type: string
Range: <dmLbl>-<primKey>, where:

dmLbl identifies the name of the applicable digit modification table with a string of 1-10 alphanumeric characters;

primKey identifies the primary key applicable to the specified digit modification table, with values of:

CALLTYPE = type of call (Class 5)
CDPN = called party number
CGPN = calling party number
CHRGN = charge number
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
GAP-{0-255} = Generic Address Parameter
GENDGTS-{0-31} = Generic Digits
JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
REG-{1-6} = Register index
TNS = Transit Network Selection

Default value: NULL

rtKey Identifies, when the value of *treatType* is "REROUTE", the routing table and associated primary key used to change parameters for a reroute.

Type: string
Range: <rtLbl>-<primKey>, where:

rtLbl identifies the name of the applicable routing table with a string of 1-10 alphanumeric characters (or "NULL" to reroute in the current partition);

primKey identifies the primary key applicable to the specified routing table, with values of:

BGN = Bearer Group Number (interface type)
CALLTYPE = type of call (Class 5)
CDPN = called party number (Default value)
CGPN = calling party number
CHRGN = charge number
CIP = Carrier Information Parameter (for ISUP only)
CPC = Calling Party Category
CSI = Carrier Selection Information
GAP-{0-255} = Generic Address Parameter
GENDGTS-{0-31} = Generic Digits
JIP = Jurisdiction Information Parameter (NPANXX)
LATA = Local Access & Transport Area
OLI = Originating Line Information
SCPTG = SCP-returned Trunk Group
TNS = Transit Network Selection

Default value: NULL

nextTreat Identifies, when the value of *treatType* is "ANNC", the digit modification table and associated primary key used to change parameters for a reroute.

Type: string
Range: 1-10 alphanumeric characters, CONTINUE
Default value: NULL

Input Examples:

```
DLT-TREATMENT::TREATMENT1;

ED-TREATMENT::TREATMENT1:::TREATTYPE=ANNC,ANNCID=3002,
   NEWVALUE=126;

ENT-TREATMENT::TREATMENT1:::TREATTYPE=ANNC,
   ANNCID=3002,NEWVALUE=126;

RTRV-TREATMENT::TREATMENT1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "TREATMENT1:TREATTYPE=ANNC,ANNCID=3002,
      ANNCARGS=NULL,ANSIND=N,FAICND=NULL,
      DGTMODKEY=NULL,RTKEY=NULL,
      NEXTTREAT=NULL"
;
```

Related Commands: none

RLS-CALL

Command:

RLS-CALL: Release Call

Description:

RLS-CALL lets you manually force the release of a call. It is usually used to release fraudulent calls. The call is identified by the AID retrieved from the fraud CDR generated for calls that meet the fraud screening parameters or from the RTRV-FRAUDCALLS command.

Category: Call Control **Security:** NSA

Input Format:

```
RLS-CALL:[TID]:<callAid>:CTAG;
```

Output Format: none

Parameters:

callAid Identifies the AID as the name of a fraud call record in the CDR.

Type: string
Range: 1-FFFFFF (hexadecimal)
Default value: none

Input Example:

```
RLS-CALL::3F;
```

Related Commands:

RTRV-FRAUDCALLS

RTRV-FAILCND

Command:

RTRV-FAILCND: Retrieve Failure Condition

Description:

RTRV-FAILCND lets you retrieve the failure condition enumerations and descriptions available in the Times10 database for use by PRFL-FAILCND.

Category: Call Control **Security:** View

Input Format:

```
RTRV-FAILCND:[TID]:[<cnd>]:CTAG;
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<cnd>:DESC=<desc>"
;
```

Parameters:

cnd Identifies the AID as the name of a failure condition. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, descriptions for all failure conditions configured in the system will be returned.

Type: string
Range: up to 21 alphanumeric characters
Default value: none

desc Identifies the description of the failure condition.

Type: string
Range: up to 100 alphanumeric characters
Default value: none

Input Example:

```
RTRV-FAILCND;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "SCP_OPR_FAILED:DESC=\"All SCP related operations \""
   "PROTERR:DESC=\"Protocol Error used by all protocol \""
   "RESUNAVAIL:DESC=\"resources unavailable,  unspecified \""
   "CKTCONG:DESC=\" Circuit/channel congestion \""
   "TMRRCVRY:DESC=\"recovery on timer expiry \""
   "USRBUSY:DESC=\"user busy \""
   "CALL_BLOCK:DESC=\"call blocked \""
   "BCAPNOTIMPL:DESC=\"bearer capability not implemented \""
   "SUBIF_NOT_PROV:DESC=\"sub if not provisioned \""
   "NOCKTAVAIL:DESC=\"NoCircuit available\""
   "LM_INITIATED_REL:DESC=\"Layer Mgr initiated release\""
   "ANS_SUPER_REL:DESC=\"Answer supervision timer expiry\""
   "AUTH_FAILURE:DESC=\"Auth/Account code entry failure\""
   "FC_SCR_FRAUD_REL:DESC=\"call screened to be fraud\""
   "NODSPRESOURCES:DESC=\"DSP resources are not available\""
   "CODECFAILURE:DESC=\"Codec not acceptable\""
   "UNALLOC_NUMBER:DESC=\"unallocated numbers \""
   "NOROUTTRANSNET:DESC=\"no route to transit network \""
   "VACANT_CODE:DESC=\"Invalid Carrier Access Code \""
   "INV0PREFIX:DESC=\"Invalid 0 Prefix \""
   "INV1PREFIX:DESC=\"Invalid 1 Prefix \""
   "HAVE1PREFIX:DESC=\"Prefix 1 not Dialed when Required\""
   "INVALID_CARRIER:DESC=\"invalid carrier specified \""
   "NMBCHNG:DESC=\"number changed \""
   "DSTOUTORD:DESC=\"destination out of order \""
   "INVNMBFORM:DESC=\"invalid number format \""
   "CGOOS:DESC=\"cgprty oos unallocatedi changed\""
   "EQUIPMENT_TROUBLE:DESC=\"equipment trouble \""
   "RT_FAILED:DESC=\"routing failed \""
   "INTFC_UNAVAIL:DESC=\"interface unavailable \""
   "INTFC_UNAVAIL_COST:DESC=\"no circuit/channel available \""
   "INTFC_UNAVAIL_BCAP:DESC=\"bearer cap not presently avail\""
   "NOROUTDST:DESC=\"no route to destination \""
   "EXCG_RT_ERROR:DESC=\" Exchange Routing error \""
   "REQ_CHAN_NAVAIL:DESC=\" Requested Channel not available \""
```

Related Commands:

DLT/ED/ENT/RTRV-PRFL-FAILCND

RTRV-FRAUDCALLS

Command:

RTRV-FRAUDCALLS: Retrieve Fraud Calls

Description:

RTRV-FRAUDCALLS lets you retrieve details about calls that have been marked as potentially fraudulent by a fraud trap profile.

Category: Call Control **Security:** View

Input Format:

```
RTRV-FRAUDCALLS:[TID]:[<callAid>]:CTAG:::
   [COUNT=<count>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<com>:FRAUDCALLINFO=<fraudCallInfo>,
      CFINFO=<cfinfo>,ASSOCCALLINFO=<assocCallInfo>,
      NMBRREC=<nmbrRec>"
;
```

Parameters:

callAid Identifies the AID as the name of a fraud call record in the CDR. A null value is equivalent to "ALL"; that is, by leaving the field blank, information for all fraud calls will be returned.

Type: string
Range: 1-FFFFFF (hexadecimal)
Default value: none

com Identifies the AID (in output) as the switch.

Type: COM
Range: COM
Default value: none

count Identifies the number of entries to display in output.

Type: integer
Range: {1-100}
Default value: 1

fraudCallInfo Identifies the fraud call detail information (the recorded call leg details).

Type: string
Range: <callAid>-<icIfType>-<icIfId>-<ogIfType>-<ogIfId>-<cgpn>-<cdpn>, where:

callAid identifies the name of a fraud call record in the CDR with a hexadecimal string from 2-FFFFFF

icIfType identifies the incoming interface type, with values of:
BICC = BICC trunk
CASIF = CAS interface
CASTRK = CAS trunk
GR303 = GR303 interface
ISDNIF = ISDN interface
ISUP = ISUP trunk
MGCP = MGCP interface
SIP = SIP trunk

icIfId identifies the incoming interface with an integer from 0-65535

ogIfType identifies the outgoing interface type, with values of:
BICC = BICC trunk
CASIF = CAS interface
CASTRK = CAS trunk
GR303 = GR303 interface
ISDNIF = ISDN interface
ISUP = ISUP trunk
MGCP = MGCP interface
SIP = SIP trunk

ogIfId identifies the outgoing interface with an integer from 0-65535

cgpn identifies the calling party number to be matched as a string of 1-31 digits;

cdpn identifies the called party number to be matched as a string of 1-31 digits;

Default value: none

cfInfo Identifies the call forwarding detail associated with the fraud call record.

Type: string
Range: <OCN>-<ORR>-<RN>-<RR>-<RC>, where:

OCN identifies the Originating Called party Number in the CDR with a string of 1-31 digits and a default of “NULL”

ORR identifies the Originating Redirecting Reason in the CDR with a string of alphanumeric characters and a default of “NULL”

RN identifies the Redirecting Number in the CDR with a string of 1-31 digits and a default of “NULL”

RR identifies the Redirecting Reason in the CDR with a string of alphanumeric characters and a default of “NULL”

RC identifies the Redirecting Counter in the CDR with an integer from 0-65535

Default value: none

assocCallInfo Identifies the fraud call detail information (the recorded call leg details) for third party involvement in the call .

Type: string
Range: <callAid>-<icIfType>-<icIfId>-<ogIfType>-<ogIfId>-<cgpn>-<cdpn>, where:

callAid identifies the name of a fraud call record in the CDR with a hexadecimal string from 2-FFFFFF

icIfType identifies the incoming interface type, with values of:
BICC = BICC trunk
CASIF = CAS interface
CASTRK = CAS trunk
GR303 = GR303 interface
ISDNIF = ISDN interface
ISUP = ISUP trunk
MGCP = MGCP interface
SIP = SIP trunk

icIfId identifies the incoming interface with an integer from 0-65535

ogIfType identifies the outgoing interface type, with values of:
BICC = BICC trunk
CASIF = CAS interface
CASTRK = CAS trunk
GR303 = GR303 interface
ISDNIF = ISDN interface

ISUP = ISUP trunk
MGCP = MGCP interface
SIP = SIP trunk

ogIfId identifies the outgoing interface with an integer from 0-65535

cgpn identifies the calling party number to be matched as a string of 1-31 digits with a default of “NULL”;

cdpn identifies the called party number to be matched as a string of 1-31 digits with a default of “NULL”;

Default value: none

nmbrRec Identifies the total number of fraud call records in the database..

Type: integer
Range: {1-65535}
Default value: none

Input Example:

```
RTRV-FRAUDCALLS;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "com:FRAUDCALLINFO=3F-ISUP-1-ISUP-2-5088048202-
      5084900909,CFINFO=5088048202-1,
      ASSOCCALLINFO=NULL,NMBREC=1"
;
```

Related Commands:

DLT/ED/ENT/RTRV-PRFL-FRAUDCALLS

TEST-TRANS

Command:

TEST-TRANS: Test Translation

Description:

TEST-TRANS lets you verify translation plans in the call router and check the routing decision and modifications to the keys. You must first configure the router to run this command. TEST-TRANS has the following limitations:

- SCP interactions (tollfree, LNP, other general AIN triggers) are not validated (or even detected).
- No simulation occurs when the value of the first part of *actnInfoAnlz* in TRANS-PLAN is "SUB"; that is, the primary digit-screening key "SUBSTATUS" for an action performed at the InfoAnalyzed PIC prior to AIN trigger analysis is not validated.
- Limited support for the digit-modification/screening primary key CALLTYPE in DIGIT-SCREEN, DIGITMOD-DN/GEN/PARAM/TNS, and ROUTE, unless a call type associated with a trunk group is specified in PRFL-PARAMDEFAULTS or is specified by the parameter *callType* in this command. The actual call type associated with the simulated call based on number analysis of calling and called party number is not available to this feature.
- Announcements resulting from a treatment specified in a failure condition profile required by a translation plan are denoted in the TEST-TRANS output solely by their ID numbers, without reporting their applicable arguments.

Category: Call Control **Security:** NSA

Input Format:

```
TEST-TRANS:[TID]:[<src>]:CTAG::[BGN=<bgn>],
   [CDPN=<cdpn>],[CGPN=<cgpn>],[CHRGN=<chrgn>],
   [GAP=<gap>],[GENDGTS=<gendgts>],[TNS=<tns>],
   [LATAID=<lataId>],[OLI=<oli>],[CPC=<cpc>],
   [CIP=<cip>],[JIP=<jip>],[CSI=<csi>],
   [CALLTYPE=<callType>],[AUTHCODE=<authCode>],
   [TOD=<tod>],[SUBSTATUS=<substatus>],
   [FMTOPT=<fmtopt>],[ABGN=<abgn>],[SCPTG=<scptg>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<COM>:<text>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

bgn Identifies the bearer group.

Type: string
Range: <intfcType>-<idx>, where

intfcType identifies the type of interface applicable to the bearer group, with values of:
CASIF = CAS interface
GR303 = GR303 interface
ISDNIF = ISDN interface
MGCP = MGCP interface
TGN = BICC, CAS, ISUP, or SIP trunk

idx identifies the trunk group or interface index (except for GR303 where it identifies the subscriber interface number), with values of:
CASIF: 1-2147483645
GR303: 1-32767
ISDNIF: 1-32767
MGCP: 1-100000
TGN: 1-9999

Default value: NULL

cdpn Identifies the called party number.

Type: string
Range: <cdnai>-<nmb>, where

cdnai identifies the called party number nature of address indicator, with values of:

ABBREVPVT = abbreviated private
INTNATNUM = international number
INTNATOPREQ = international operator request
NATNUM = national significant number
NATOPREQ = national (long-distance) operator request
NONUMCUTTHRU = no number provided, cut through to carrier
NONUMOPREQ = no number provided, operator request
SUBOPREQ = subscriber (local) operator request
SUBSNUM = subscriber number
TESTLINE = test line test code
UNKNOWN = unknown number;

nmb identifies the called party number with a numeric string of up to 31 digits

Default value: NULL

cgpn Identifies the calling party number.

Type: string
Range: <cgnai>-<nmb>, where

cgnai identifies the calling party number nature of address indicator, with values of:

ABBREVPVT = abbreviated private
NUNIINTNATNUM = non-unique international number
NUNINATNUM = non-unique national number (only for CGPN)
NUNISUBSNUM = non-unique subscriber number
TESTLINE = test line test code
UNIINTNATNUM = unique international number
UNINATNUM = unique national number
UNISUBSNUM = unique subscriber number

nmb identifies the calling party number with a numeric string of up to 31 digits

Default value: NULL

chrgn Identifies the charge number.

Type: string
Range: <chrgnnai>-<nmb>, where

chrgnai identifies the charge number nature of address indicator, with values of:

CDPNATNUM = ANI of the called party; national number
CDPSUBSNUM = ANI of the called party; subscriber number
CDPUNAVAIL = ANI of the called party; no number present
CGPNATNUM = ANI of the calling party; national number
CGPSUBSNUM = ANI of the calling party; subscriber number
UNAVAIL = ANI not available or not provided

nmb identifies the charge number with a numeric string of up to 31 digits

Default value: NULL

gap Identifies up to five Generic Address Parameters, separated by ampersands (&).

Type: string
Range: <gap>[&<gap>[&<gap>[&<gap>[&<gap>]]]], where *gap* has the form <primKey>-<secKey>, *primKey* identifying the type of generic address parameter with an integer from 0-255, and *secKey* identifying the starting digits with a string of one to 31 digits or “DEFAULT” or “NOTPRSNT”
Default value: NULL

gendgts Identifies up to five Generic Digits Parameters, separated by ampersands (&).

Type: string
Range: <genDgts>[&<genDgts>[&<genDgts>[&<genDgts>[&<genDgts>]]]], where *genDgts* has the form <primKey>-<secKey>, *primKey* identifying the type of generic digits with an integer from 1-31, and *secKey* identifying the starting digits with a string of up to 31 digits or “DEFAULT” or “NOTPRSNT”
Default value: NULL

tns Identifies the Transit Network Selection (TNS) parameter.

Type: string
Range: <tnsVal>-<0ZZcode>, where

tnsVal identifies the carrier code as a string of 1-4 digits (Range = {0-9999})

0ZZcode identifies the ISUP circuit code or the CAS 0ZZ or 1NX codes as a string of 1-3 digits (Range = {0-255})

Default value: NULL

lataId Identifies the Local Access & Transport Area.

Type: integer
Range: {100-999, 10000-99999}
Default value: NULL

oli Identifies the Originating Line Information parameter.

Type: string
Range: {00-FF} (hexadecimal)
Default value: NULL

cpc Identifies the Calling Party Category parameter.

Type: string
Range: {00-FF} (hexadecimal)
Default value: NULL

cip Identifies the Carrier Information Parameter (for ISUP only).

Type: integer
Range: {0-9999}
Default value: NULL

jip Identifies the Jurisdiction Information Parameter (NPANXX).

Type: integer
Range: {200000-999999}
Default value: NULL

csi Identifies the Carrier Selection Information parameter.

Type: enum
Range: PRESUBDIAL = presubscribed and input by calling party
PRESUBNOTDIAL = presubscribed and not input by calling party
PRESUBUNKNOWN = presubscribed, input by calling party undetermined
NOTPRESUB = not presubscribed and input by calling party
UNKNOWN = no indication
Default value: NULL

callType Identifies the type of call (Class 5).

Type: enum
Range: CUTTHRU
DIR_ASSISTANCE
EMERGENCY
INTERLATA
INTERLATAOPREQ
INTNATNUM
INTNATOPREQ
INTRALATA
INTRALATAOPREQ
LOCALNUMBER
LOCALOPREQ
N11
NATNUM
NONUMOPREQ
TOLLFREE
Default value: NULL

authCode Identifies the authorization code provided by the caller.

Type: string
Range: up to 16 digits
Default value: NULL

tod Identifies the time of day in month-day-hour format.

Type: integer
Range: MM-DD-HH
Default value: NULL

substatus Identifies the status of the subscriber.

Type: enum
Range: ACTIVE = In Service (subscriber is present in the CL4SUB table and active)
INACTIVE = Out Of Service (subscriber is present in the CL4SUB table and inactive)
NOTINDB = Not in database (subscriber is not in the CL4SUB table)
Default value: NULL

fmtopt Identifies whether to use alternate output formatting for decoding in the Plexview® EMS. This parameter is for use by Lucent personnel; leave it blank.

Type: BoolYN
Range: N = In Service (subscriber is present in the CL4SUB table and active)
Y = Out Of Service (subscriber is present in the CL4SUB table and inactive)
Default value: N

abgn Identifies the anchor bearer group for SIP and SIP-T. ABGN is an internal translation key for handling certain SIP "referred" calls. For some SIP referred calls, with our without replace, involving analysis of referred-to-number and subsequent routing, ABGN captures the ingress trunk group of the referred call. In all other calls, this key is set to NOTPRSNT. Not all SIP call refers need to utilize the ABGN key. Typically, the translation plan and routing keys associated with the trunk group over which the "refer" is received provide enough flexibility to route the call properly. You can use the AGBN key to differentiate between two trunk groups, when routing refers over a different trunk group than new call requests.

Type: string
Range: <rrType>-<intfcType>-<idx>, where

rrType identifies the refer/replace type, with values of:
LOCAL = CAS interface
NONE = GR303 interface
RMT = ISDN interface

intfcType identifies the type of interface applicable to the anchor bearer group, with values of:
CASIF = CAS interface
GR303 = GR303 interface
ISDNIF = ISDN interface
MGCP = MGCP interface
TGN = CAS, ISUP, or SIP trunk

idx identifies the trunk group or interface index (except for GR303 where it identifies the subscriber interface number), with values of:

CASIF: 1-2147483647
GR303: 1-32767
ISDNIF: 1-2147483647
MGCP: 1-100000
TGN: 1-9999

Default value: NULL

scptg Identifies the SCP-returned Trunk Group.

Type: string
Range: up to 32 digits
Default value: NULL

text Identifies, as the output, descriptions of translation plans, routing decisions, and key modifications in the call router.

Type: string
Range: ASCII characters
Default value: none

Input Example:

```
TEST-TRANS:::::BGN=TGN-1,CDPN=NATNUM-908,TNS=111;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:0:TrkGrp-1::TransPlan-TP1"
   "COM:1:type=Transplan,label=TP1,type=Normal,
      action=infoColl,type=Screen,label=DS1"
   "COM:2:type=Screen,label=DS1,key=TNS,rule=TNS-0111,
      match=0111,action=Pass"
   "COM:3:type=Transplan,label=TP1,type=Normal,
      type=Router,label=RD1"
   "COM:4:type=Router,label=RD1,key=CDPN,
      rule=CDPN-NATIONAL-DEFAULT,match=NATIONAL-908,
      action=RtList,label=RL1"
   "COM:5:type=Routelist,label=RL1,hunt=Circ,index=1,
      intfc=TrkGrp-1001"
   "COM:6:type=Intfc,label=TrkGrp-1001"
;
```

Related Commands:

```
DLT/ED/ENT/RTRV-TRANS-PLAN
```

NOTES

DLT/ENT/RTRV-DN-RAF

Commands:

DLT-DN-RAF: Delete DN RAF

ENT-DN-RAF: Enter DN RAF

RTRV-DN-RAF: Retrieve DN RAF

Descriptions:

DLT-DN-RAF lets the user delete the directory number (DN) that the carrier provides for remote access to features (RAF); that is, remote service access.

ENT-DN-RAF lets the user establish the directory number (DN) the carrier provides for remote access to features (RAF); that is, remote service access.

RTRV-DN-RAF lets the user retrieve the directory number (DN) the carrier provides for remote access to features (RAF); that is, remote service access.

Category: Call Control **Security:** SA for DLT/ENT, View for RTRV

Input Formats:

```
DLT-DN-RAF:[TID]:<dn>:[CTAG];
ENT-DN-RAF:[TID]:<dn>:[CTAG];
RTRV-DN-RAF:[TID]:[<dn>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<dn>"
;
```

Parameters:

dn Identifies the AID as the DN the carrier provides for remote service access. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the remote service access DN configured in the system will be returned.

Type: string
Range: up to 21 digits
Default value: none

Input Examples:

```
DLT-DN-RAF::5088048202;

ENT-DN-RAF::5088048202;

RTRV-DN-RAF;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "5088048202"
;
```

Related Commands: none

DLT/ENT/RTRV-GMSC-LAESDN

Commands:

DLT-GMSC-LAESDN: Delete GMSC Lawfully Authorized Electronic Surveillance DN

ENT-GMSC-LAESDN: Enter GMSC Lawfully Authorized Electronic Surveillance DN

RTRV-GMSC-LAESDN: Retrieve GMSC Lawfully Authorized Electronic Surveillance DN

Descriptions:

DLT-GMSC-LAESDN lets the user designate a wireless subscriber as no longer being under CALEA surveillance.

ENT-GMSC-LAESDN lets the user designate a wireless subscriber as being under CALEA surveillance. ENT-GMSC-LAESDN will not work unless ENT-SUBSCRIBER has already been issued.

RTRV-GMSC-LAESDN lets the user determine the wireless subscribers under CALEA surveillance.

Category: Call Control

Security: SA (and CALEA-enabled via ED/ENT-USER-SECU) for all commands

Input Formats:

```
DLT-GMSC-LAESDN:[TID]:<subscriberDn>:[CTAG];
ENT-GMSC-LAESDN:[TID]:<subscriberDn>:[CTAG];
RTRV-GMSC-LAESDN:[TID]:[<subscriberDn>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<subscriberDn>"
;
```

Parameters:

subscriberDn Identifies the AID as a wireless subscriber under CALEA surveillance at the home MSC (Mobile Switching Center). A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all wireless subscribers under CALEA surveillance in the system will be returned. You can use the key word “ALL” (in DLT) to remove from the system all wireless subscribers under CALEA surveillance.

Type: string
Range: up to 21 digits, including over-decadic digits A-F
Default value: none

Input Examples:

```
DLT-GMSC-LAESDN::5088048202;

ENT-GMSC-LAESDN::5088048202;

RTRV-GMSC-LAESDN;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "5088048202"
   "5084900909"
;
```

Related Commands: none

DLT/ENT/RTRV-LNPSCREEN-DIGITS

Commands:

DLT-LNPSCREEN-DIGITS: Delete LNPSCREEN Digits

ENT-LNPSCREEN-DIGITS: Enter LNPSCREEN Digits

RTRV-LNPSCREEN-DIGITS: Retrieve LNPSCREEN Digits

Descriptions:

DLT-LNPSCREEN-DIGITS lets the user delete a telephone number from the list of called numbers for which LNP queries can be issued. Entries can be either three digits to represent an entire NPA, six digits to represent an NXX within an NPA, or ten digits for an individual telephone number.

ENT-LNPSCREEN-DIGITS lets the user add telephone numbers to the list of called numbers for which LNP queries can be issued. Entries can be either three digits to represent an entire NPA, six digits to represent an NXX within an NPA, or ten digits for an individual telephone number.

RTRV-LNPSCREEN-DIGITS lets the user either retrieve the list of called numbers for which LNP queries can be issued, or determine if a specific number is listed.

Category: Call Control **Security:** SA for DLT/ENT, View for RTRV

Input Formats:

```
DLT-LNPSCREEN-DIGITS:[TID]:<screenDigits>:[CTAG];
ENT-LNPSCREEN-DIGITS:[TID]:<screenDigits>:[CTAG];
RTRV-LNPSCREEN-DIGITS:[TID]:[<screenDigits>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<screenDigits>"
;
```

Parameters:

screenDigits Identifies the AID as an NPA, an NXX within an NPA, or an individual telephone number. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all telephone numbers in the system for which LNP queries can be issued will be returned.

Type: string
Range: 3 or 6-10 digits
Default value: none

Input Examples:

```
DLT-LNPSCREEN-DIGITS::508480;

ENT-LNPSCREEN-DIGITS::508480;

RTRV-LNPSCREEN-DIGITS;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "508480"
   "508804"
   "978"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-MGC

Commands:

DLT-MGC: Delete Media Gateway Controller

ED-MGC: Edit Media Gateway Controller

ENT-MGC: Enter Media Gateway Controller

RTRV-MGC: Retrieve Media Gateway Controller

Descriptions:

DLT-MGC lets the user delete a remote switch acting as a media gateway controller.

ED-MGC lets the user change the primary state of a remote switch acting as a media gateway controller that interfaces with the local switch in a point-to-point SS7-over-IP network.

ENT-MGC lets the user establish the primary state of a remote switch acting as a media gateway controller, and the IP addresses for the MGC's SP Modules that interface with the local switch in a point-to-point SS7-over-IP network.

RTRV-MGC lets the user retrieve the state of a remote switch acting as a media gateway controller and the IP addresses for the MGC's SP Modules that interface with the local switch in a point-to-point SS7-over-IP network.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-MGC:[TID]:<mgcId>:[CTAG];

ED-MGC:[TID]:<mgcId>:[CTAG]::<pst>;

ENT-MGC:[TID]:<mgcId>:[CTAG]::MGCSPAIP=<mgcSPAIp>,
   MGCSPBIP=<mgcSPBIp>:<pst>;

RTRV-MGC:[TID]:[<mgcId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "[<mgcId>]:[MGCSPAIP=<mgcSPAIp>],
      [MGCSPBIP=<mgcSPBIp>]:<pst>"
;
```

Parameters:

mgcId Identifies the AID as the point code of the processor pair in the remote media gateway controller. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for all media gateway controllers configured in the system will be returned.

Type: PcAid
Range: {0-255}-{0-255}-{0-255}
Default value: none

mgcSPAIp Identifies the IP address for the SP-A Module of the media gateway controller. A value of “127.0.0.1” puts the module in loopback.

Type: string
Range: {0-254}.{0-254}.{0-255}.{1-255}
Default value: none

mgcSPBIp Identifies the IP address for the SP-B Module of the media gateway controller. A value of “127.0.0.1” puts the module in loopback.

Type: string
Range: {0-254}.{0-254}.{0-255}.{1-255}
Default value: none

pst Identifies the primary state of the media gateway controller. Call processing stops on the media gateway controller when the state is “OOS”.

Type: enum
Range: IS = In-service
OOS = Out-of-service
Default value: none

Input Examples:

```
DLT-MGC::23-186-5;

ED-MGC::23-186-5:::OOS;

ENT-MGC::23-186-5:::MGCSPAIP=192.168.252.4,
   MGCSPBIP=192.168.254.22:IS;

RTRV-MGC;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "23-186-5:MGCSPAIP=192.168.252.4,
      MGCSPBIP=192.168.254.22:IS"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-NP-POOLED

Commands:

DLT-NP-POOLED: Delete NP (Number Portability) Pooled

ED-NP-POOLED: Edit NP (Number Portability) Pooled

ENT-NP-POOLED: Enter NP (Number Portability) Pooled

RTRV-NP-POOLED: Retrieve NP (Number Portability) Pooled

Descriptions:

DLT-NP-POOLED lets the user delete a block of numbers assignable to alternative carriers.

ED-NP-POOLED lets the user change the ending number for a block of numbers assignable to alternative carriers. The switch performs an LNP query to the SCP when a called party number is within a block of pooled numbers.

ENT-NP-POOLED lets the user create a block of numbers that can be assigned to alternative carriers. The switch performs an LNP query to the SCP when a called party number is within a block of pooled numbers.

RTRV-NP-POOLED lets the user retrieve the ending number for a block of numbers assignable to alternative carriers. The switch performs an LNP query to the SCP when a called party number is within a block of pooled numbers.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-NP-POOLED:[TID]:<ccNpaNxxStart>:[CTAG];

ED-NP-POOLED:[TID]:<ccNpaNxxStart>:[CTAG]::
   ENDINGXXXX=<endingXxxx>;

ENT-NP-POOLED:[TID]:<ccNpaNxxStart>:[CTAG]::
   [ENDINGXXXX=<endingXxxx>];

RTRV-NP-POOLED:[TID]:<ccNpaNxxStart>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<ccNpaNxxStart>:ENDINGXXXX=<endingXxxx>"
;
```

Parameters:

ccNpaNxxStart Identifies the starting number for the block of pooled numbers. The first set of numbers in the range represents the country code, the second set represents the area code, the third represents the local exchange, and the fourth (which must be exactly four digits) represents the starting number for the block. A null value for the fourth set in the range (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the system returns all starting numbers for blocks of pooled numbers in the specified local exchange.

Type: CcNpaNxxStart
Range: {1-99999}-{1-99999}-{1-99999}[-{0-9999}]
Default value: none

endingXxxx Identifies the ending number (which will be exactly four digits) for the block of pooled numbers.

Type: enum
Range: {0-9999}
Default value: none

Input Examples:

```
DLT-NP-POOLED::01-508-480-1000;
ED-NP-POOLED::01-508-480-1000:::ENDINGXXXX=1999;
ENT-NP-POOLED::01-508-480-1000:::ENDINGXXXX=1999;
RTRV-NP-POOLED::01-508-480-1000;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "01-508-480-1000:ENDINGXXXX=1999"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-NP-PORTEDOUT

Commands:

DLT-NP-PORTEDOUT: Delete NP (Number Portability) Ported Out

ED-NP-PORTEDOUT: Edit NP (Number Portability) Ported Out

ENT-NP-PORTEDOUT: Enter NP (Number Portability) Ported Out

RTRV-NP-PORTEDOUT: Retrieve NP (Number Portability) Ported Out

Descriptions:

DLT-NP-PORTEDOUT lets the user delete a block of numbers ported out from the switch.

ED-NP-PORTEDOUT lets the user change the ending number for a block of numbers ported out from the switch.

ENT-NP-PORTEDOUT lets the user create a block of numbers that are ported out from the switch.

RTRV-NP-PORTEDOUT lets the user retrieve the ending number for a block of numbers that are ported out from the switch.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-NP-PORTEDOUT:[TID]:<ccNpaNxxStart>:[CTAG];

ED-NP-PORTEDOUT:[TID]:<ccNpaNxxStart>:[CTAG]::
   ENDINGXXXX=<endingXxxx>;

ENT-NP-PORTEDOUT:[TID]:<ccNpaNxxStart>:[CTAG]::
   [ENDINGXXXX=<endingXxxx>];

RTRV-NP-PORTEDOUT:[TID]:<ccNpaNxxStart>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<ccNpaNxxStart>:ENDINGXXXX=<endingXxxx>"
;
```

Parameters:

ccNpaNxxStart Identifies the starting number for the block of ported-out numbers. The first set of numbers in the range represents the country code, the second set represents the area code, the third represents the local exchange, and the fourth (which must be exactly four digits) represents the starting number for the block. A null value for the fourth set in the range (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the system returns all starting numbers for blocks of ported-out numbers in the specified local exchange.

Type: CcNpaNxxStart
Range: {1-99999}-{1-99999}-{1-99999}[-{0-9999}]
Default value: none

endingXxxx Identifies the ending number (which will be exactly four digits) for the block of ported-out numbers.

Type: enum
Range: {0-9999}
Default value: none

Input Examples:

```
DLT-NP-PORTEDOUT::01-508-480-1000;
ED-NP-PORTEDOUT::01-508-480-1000:::ENDINGXXXX=1999;
ENT-NP-PORTEDOUT::01-508-480-1000:::ENDINGXXXX=1999;
RTRV-NP-PORTEDOUT::01-508-480-1000;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "01-508-480-1000:ENDINGXXXX=1999"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-NP-RESERVED

Commands:

DLT-NP-RESERVED: Delete NP (Number Portability) Reserved

ED-NP-RESERVED: Edit NP (Number Portability) Reserved

ENT-NP-RESERVED: Enter NP (Number Portability) Reserved

RTRV-NP-RESERVED: Retrieve NP (Number Portability) Reserved

Descriptions:

DLT-NP-RESERVED lets the user delete a block of numbers reserved for number portability in the switch.

ED-NP-RESERVED lets the user change the ending number for a block of numbers reserved for number portability in the switch.

ENT-NP-RESERVED lets the user create a block of numbers that are reserved for number portability in the switch.

RTRV-NP-RESERVED lets the user retrieve the ending number for a block of numbers that are reserved for number portability in the switch.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-NP-RESERVED:[TID]:<ccNpaNxxStart>:[CTAG];

ED-NP-RESERVED:[TID]:<ccNpaNxxStart>:[CTAG]::
   ENDINGXXXX=<endingXxxx>;

ENT-NP-RESERVED:[TID]:<ccNpaNxxStart>:[CTAG]::
   [ENDINGXXXX=<endingXxxx>];

RTRV-NP-RESERVED:[TID]:<ccNpaNxxStart>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<ccNpaNxxStart>:ENDINGXXXX=<endingXxxx>"
;
```

Parameters:

ccNpaNxxStart Identifies the starting number for the block of reserved numbers. The first set of numbers in the range represents the country code, the second set represents the area code, the third represents the local exchange, and the fourth (which must be exactly four digits) represents the starting number for the block. A null value for the fourth set in the range (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the system returns all starting numbers for blocks of reserved numbers in the specified local exchange.

Type: CcNpaNxxStart
Range: {1-99999}-{1-99999}-{1-99999}[-{0-9999}]
Default value: none

endingXxxx Identifies the ending number (which will be exactly four digits) for the block of reserved numbers.

Type: enum
Range: {0-9999}
Default value: none

Input Examples:

```
DLT-NP-RESERVED::01-508-480-1000;
ED-NP-RESERVED::01-508-480-1000:::ENDINGXXXX=1999;
ENT-NP-RESERVED::01-508-480-1000:::ENDINGXXXX=1999;
RTRV-NP-RESERVED::01-508-480-1000;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "01-508-480-1000:ENDINGXXXX=1999"
;
```

Related Commands: none

DLT/ENT/RTRV-TOLLFREE-NPA

Commands:

DLT-TOLLFREE-NPA: Delete Tollfree NPA

ENT-TOLLFREE-NPA: Enter Tollfree NPA

RTRV-TOLLFREE-NPA: Retrieve Tollfree NPA

Descriptions:

DLT-TOLLFREE-NPA lets the user delete a tollfree NPA (Numbering Plan Area) within a country from the system.

ENT-TOLLFREE-NPA lets the user add a tollfree NPA (Numbering Plan Area) within a country to the system. ENT-TOLLFREE-NPA will not work unless ENT-COUNTRY has already been issued.

RTRV-TOLLFREE-NPA lets the user retrieve all tollfree NPAs (Numbering Plan Areas) within a country from the system. The command also can be used to determine the existence of a specific tollfree NPA.

Category: Call Control **Security:** SA for DLT and ENT, View for RTRV

Input Formats:

```
DLT-TOLLFREE-NPA:[TID]:<CcNpa>:[CTAG];
ENT-TOLLFREE-NPA:[TID]:<CcNpa>:[CTAG];
RTRV-TOLLFREE-NPA:[TID]:<CcNpa>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<CcNpa>"
;
```

Parameters:

CcNpa Identifies the AID as a tollfree NPA within a country. The first number in the range identifies the country code; the second identifies the tollfree NPA and is optional in DLT and RTRV. A null value for the second number in the range (in DLT and RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the system deletes or returns all tollfree NPAs for the country specified by the first number in the range. If you specify a nonexistent tollfree NPA for the second number in the range, the system will return a “DENY – SROF” message.

Type: ccNpa
Range: {1-99999}-[{200-999}]
Default value: none

Input Examples:

```
DLT-TOLLFREE-NPA::01-888;
ENT-TOLLFREE-NPA::01-888;
RTRV-TOLLFREE-NPA::01;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "01-800"
   "01-877"
   "01-888"
;
```

Related Commands: none

ED/ENT/RTRV-ACBAR-SYS

Commands:

ED-ACBAR-SYS: Edit ACBAR System

ENT-ACBAR-SYS: Enter ACBAR System

RTRV-ACBAR-SYS: Retrieve ACBAR System

Descriptions:

ED-ACBAR-SYS lets the user change the values for the timers and counters for the ACB (Automatic Call-Back) and AR (Automatic Redial) features.

ENT-ACBAR-SYS lets the user provision the timers and counters for the ACB (Automatic Call-Back) and AR (Automatic Redial) features. ENT-ACBAR-SYS will not work unless ENT-SLHR-SCP has already been issued.

RTRV-ACBAR-SYS lets the user retrieve the values for the timers and counters for the ACB (Automatic Call-Back) and AR (Automatic Redial) features.

Category: Call Control **Security:** SA for ED and ENT, View for RTRV

Input Formats:

```
ED-ACBAR-SYS:[TID]:[<src>]:[CTAG]::[SLHRID=<slhrid>],
   [MAXACT=<maxact>],[MAXQ=<maxq>],
   [CGSCANRATE=<cgscanrate>],
   [ORIGSCANRATE=<origscanrate>],
   [TERMSCANRATE=<termscanrate>],
   [REQTERMSCAN=<reqtermscan>],
   [RCVTERMSCAN=<rcvtermscan>],
   [DENYNUNQDN=<denynunqdn>],
   [DENYANONDN=<denyanondn>],[ACTLVL=<actlvl>],
   [VOICEBACK=<voiceback>],[RINGCYCLE=<ringcycle>],
   [MAXUNANSRING=<maxunansring>],
   [MAXANNTMOUT=<maxanntmout>],
   [INVDGTCNT=<invdgtcnt>],[T2=<t2>],[T5=<t5>],
   [T6=<t6>],[T9=<t9>],[TTHR=<tthr>],
   [ORIGT10=<origt10>],[TERMT10=<termt10>];
```

```
ENT-ACBAR-SYS:[TID]:[<src>]:[CTAG]::[SLHRID=<slhrid>],
   [MAXACT=<maxact>],[MAXQ=<maxq>],
   [CGSCANRATE=<cgscanrate>],
   [ORIGSCANRATE=<origscanrate>],
   [TERMSCANRATE=<termscanrate>],
   [REQTERMSCAN=<reqtermscan>],
   [RCVTERMSCAN=<rcvtermscan>],
   [DENYNUNQDN=<denynunqdn>],
   [DENYANONDN=<denyanondn>],[ACTLVL=<actlvl>],
   [VOICEBACK=<voiceback>],[RINGCYCLE=<ringcycle>],
   [MAXUNANSRING=<maxunansring>],
   [MAXANNTMOUT=<maxanntmout>],
   [INVDGTCNT=<invdgtcnt>],[T2=<t2>],[T5=<t5>],
   [T6=<t6>],[T9=<t9>],[TTHR=<tthr>],
   [ORIGT10=<origt10>],[TERMT10=<termt10>];

RTRV-ACBAR-SYS:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:SLHRID=<slhrid>,MAXACT=<maxact>,MAXQ=<maxq>,
      CGSCANRATE=<cgscanrate>,
      ORIGSCANRATE=<origscanrate>,
      TERMSCANRATE=<termscanrate>,
      REQTERMSCAN=<reqtermscan>,
      RCVTERMSCAN=<rcvtermscan>,
      DENYNUNQDN=<denynunqdn>,DENYANONDN=<denyanondn>,
      ACTLVL=<actlvl>,VOICEBACK=<voiceback>,
      RINGCYCLE=<ringcycle>,
      MAXUNANSRING=<maxunansring>,
      MAXANNTMOUT=<maxanntmout>,INVDGTCNT=<invdgtcnt>,
      T2=<t2>,T5=<t5>,T6=<t6>,T9=<t9>,TTHR=<tthr>,
      ORIGT10=<origt10>,TERMT10=<termt10>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

slhrId Identifies the AID as a service logic host route to a Service Control Point.

Type: integer
Range: {NULL, 0-31}
Default value: NULL

maxact Identifies the maximum number of concurrent ACB/AR activations allowed per subscriber.

Type: integer
Range: {10-30}
Default value: 20

maxq Identifies the maximum number of ACB/AR requests that can be queued per subscriber.

Type: integer
Range: {10-20}
Default value: 15

cgscanrate Identifies the calling party scan rate in seconds; i.e., the rate at which the busy/idle status of an ACB/AR subscriber will be checked when the called party is idle but the ACB/AR subscriber is busy.

Type: enum
Range: {5, 10, 15, 20, 25, 30}
Default value: 20

origscanrate Identifies the originating scan rate in seconds; i.e., the rate at which the busy/idle status of an ACB/AR subscriber will be checked when the called party is idle but the ACB/AR subscriber is busy.

Type: enum
Range: {30, 45, 60, 75, 90}
Default value: 60

termscanrate Identifies the terminating scan rate in seconds; that is, the rate at which the switch performs periodic scanning of the called party's line.

Type: enum
Range: {5, 10, 15, 20, 25, 30}
Default value: 20

reqscanrate Identifies whether the switch can request terminating scanning when originating an ACB/AR request.

Type: BoolYN
Range: Y = the switch can request terminating scanning
N = the switch cannot request terminating scanning
Default value: N

rcvscanrate Identifies whether the switch can receive and process a terminating scanning request from an originating switch.

Type: BoolYN
Range: Y = the switch can receive and process a terminating scanning request
N = the switch cannot receive and process a terminating scanning request
Default value: N

denynunqdn Identifies whether the switch denies AR activation to non-unique DNs (directory numbers).

Type: BoolYN
Range: Y = AR activation to non-unique DNs denied
N = AR activation to non-unique DNs allowed
Default value: Y

denyanondn Identifies whether the switch denies AR activation to anonymous DNs (directory numbers).

Type: BoolYN
Range: Y = AR activation to anonymous DNs denied
N = AR activation to anonymous DNs allowed
Default value: Y

actlvl Identifies the activation level. ACB always has one-level activation; AR can have two-level activation.

Type: enum
Range: ONE = one-level activation
TWO = two-level activation
Default value: ONE

voiceback Identifies the voice back option, applicable only for two-level AR activation.

Type: enum
Range: DN = entire 10-digit DN
NPA= three-digit NPA
NPANXX = six-digit NPA and NXX
Default value: DN

ringcycle Identifies the maximum number of six-second ringing cycles allowed for each instance of special ringing.

Type: integer
Range: {2-5}
Default value: 4

maxunansring Identifies the maximum number of unanswered special ring backs allowed. It limits the number of times special ringing, applied to an ACB/AR subscriber, is unanswered.

Type: integer
Range: {1-12}
Default value: 6

maxanntmout Identifies the number of times an AR subscriber can fail to respond to a dialing instructions announcement before a timeout occurs. It only applies to two-level AR activation.

Type: integer
Range: {1-3}
Default value: 2

invdgtcnt Identifies the number of times an AR subscriber can specify invalid action, after dialing instructions are provided. It only applies to two-level AR activation.

Type: integer
Range: {1-3}
Default value: 2

t2 Identifies the Timer T2 value in minutes. Timer T2 is the Resume Scanning timer, which specifies the number of minutes the switch waits to resume scanning after the ACB/AR subscriber does not answer special ringing.

Type: integer
Range: {3-12}
Default value: 5

t5 Identifies the Timer T5 value in seconds. Timer T5 is the Initial Query Response timer, which specifies the number of seconds the switch waits for a response to the initial query.

Type: integer
Range: {1-5}
Default value: 3

t6 Identifies the Timer T6 value in minutes. Timer T6 is the Monitoring timer, which specifies the number of minutes that the called party is monitored for an idle notification.

Type: integer
Range: {25-35}
Default value: 30

t9 Identifies the Timer T9 value in seconds. Timer T9 is the Subsequent Query Response timer, which specifies the number of seconds that the switch waits for a response from the terminating switch to any query other than the initial query.

Type: integer
Range: {1-5}
Default value: 3

tthr Identifies the Resume Scanning Threshold timer value in minutes, which is compared with the Monitoring Timer (T6) to determine if scanning should be resumed.

Type: integer
Range: {0-7}
Default value: 5

origt10 Identifies the Originating Overall Monitoring timer value in minutes, which determines the maximum continuous time a particular ACB/AR request can be in effect for a subscriber.

Type: integer
Range: {120-240}
Default value: 180

termt10 Identifies the Terminating Overall Monitoring timer value in minutes, which determines the maximum time an ACB/AR request can remain in the subscriber's queue.

Type: integer
Range: {120-240}
Default value: 180

Input Examples:

```
ED-ACBAR-SYS:::::SLHRID=1,MAXACT=20,MAXQ=15,
   CGSCANRATE=20,ORIGSCANRATE=60,TERMSCANRATE=20,
   REQTERMSCAN=N,RCVTERMSCAN=N,DENYNUNQDN=Y,
   DENYANONDN=Y,ACTLVL=ONE,VOICEBACK=DN,RINGCYCLE=4,
   MAXUNANSRING=6,MAXANNTMOUT=2,INVDGTCNT=2,T2=5,T5=3,
   T6=30,T9=t9,TTHR=5,ORIGT10=180,TERMT10=180;

ENT-ACBAR-SYS:::::SLHRID=1,MAXACT=20,MAXQ=15,
   CGSCANRATE=20,ORIGSCANRATE=60,TERMSCANRATE=20,
   REQTERMSCAN=N,RCVTERMSCAN=N,DENYNUNQDN=Y,
   DENYANONDN=Y,ACTLVL=ONE,VOICEBACK=DN,RINGCYCLE=4,
   MAXUNANSRING=6,MAXANNTMOUT=2,INVDGTCNT=2,T2=5,T5=3,
   T6=30,T9=t9,TTHR=5,ORIGT10=180,TERMT10=180;

RTRV-ACBAR-SYS;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:SLHRID=1,MAXACT=20,MAXQ=15,CGSCANRATE=20,
      ORIGSCANRATE=60,TERMSCANRATE=20,REQTERMSCAN=N,
      REQTERMSCAN=N,RCVTERMSCAN=N,DENYNUNQDN=Y,
      DENYANONDN=Y,ACTLVL=ONE,VOICEBACK=DN,
      RINGCYCLE=4,MAXUNANSRING=6,MAXANNTMOUT=2,
      INVDGTCNT=2,T2=5,T5=3,T6=30,T9=t9,TTHR=5,
      ORIGT10=180,TERMT10=180"
;
```

Related Commands: none

ED/RTRV-BILLSYS

Commands:

ED-BILLSYS: Edit BILLSYS

RTRV-BILLSYS: Retrieve BILLSYS

Descriptions:

ED-BILLSYS lets the user enable writing Call Detail Records (CDRs), and define the cutoff time for calls longer than 24 hours. Note that the TID (target identifier; i.e., the network name of the switch) is mandatory – use RTRV-HDR to obtain the name if unknown.

RTRV-BILLSYS lets the user retrieve whether CDR writing is enabled, and the cutoff time for long-duration calls.

Category: Call Control **Security:** NSA for ED, View for RTRV

Input Formats:

```
ED-BILLSYS:<TID>:[<src>]:[CTAG]::
   [AMAGEN=<amaGeneration>],
   [LONGDURTIME=<longDurationCallTime>];

RTRV-BILLSYS:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:AMAGEN=<amaGeneration>,
      LONGDURTIME=<longDurationCallTime>"
;
```

Parameters:

src Identifies the AID as a switch.

Type: COM
Range: COM
Default value: COM

amaGeneration Indicates whether call detail record processing is set to be in service or out of service. The factory default is “OFF”.

Type: enum
Range: OFF = Out of service
ON = In service
Default value: not applicable

longDurationCallTime Identifies when to start the timing for the long duration call interval. The factory default is 12 midnight (00-00-00).

Type: string
Range: {HH-MM-SS}
Default value: not applicable

Input Examples:

```
ED-BILLSYS:LUCENT1::::AMAGEN=OFF,LONGDURTIME=00-00-00;
RTRV-BILLSYS;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:AMAGEN=OFF,LONGDURTIME=00-00-00"
;
```

Related Commands: none

ED/RTRV-GMSC-ANSISYS

Commands:

ED-GMSC-ANSISYS: Edit GMSC ANSI System

RTRV-GMSC-ANSISYS: Retrieve GMSC ANSI System

Descriptions:

ED-GMSC-ANSISYS lets the user configure the system wide ANSI IS41 network parameters for the Gateway Mobile Switching Center (GMSC) functionality.

RTRV-GMSC-ANSISYS lets the user retrieve the system wide ANSI network parameters for the GMSC functionality.

Category: Call Control **Security:** SA for ED, View for RTRV

Input Formats:

```
ED-GMSC-ANSISYS:[TID]:[<src>]:[CTAG]::
   [MRKTID=<marketId>],[SWITCHNUM=<switchNum>],
   [SMTC=<smtc>],[SLHRID=<slhrId>],
   [GSMPREFIX=<gsmPrefix>],[CFOVERRIDE=<cfOverride>],
   [VMAILPREFIX=<vmailPrefix>],[OPRTMOUT=<oprTmout>]:
   [<pst>];
RTRV-GMSC-ANSISYS:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:MRKTID=<marketId>,SWITCHNUM=<switchNum>,
      SMTC=<smtc>,SLHRID=<slhrId>,
      GSMPREFIX=<gsmPrefix>,CFOVERRIDE=<cfOverride>,
      VMAILPREFIX=<vmailPrefix>,OPRTMOUT=<oprTmout>:
      <pst>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

marketId Identifies a unique market (an area of coverage; for instance, a greater metropolitan area) specified by the service provider. The factory default is “NULL”.

Type: integer
Range: {0-32767}
Default value: not applicable

switchNum Identifies a particular group of cell sites and switch resources associated with the specified *marketId*. The factory default is “NULL”.

Type: integer
Range: {0-255}
Default value: not applicable

smtc Identifies the SystemMyTypeCode that designates Lucent as the vendor of the switch. The factory default is “NULL”.

Type: integer
Range: {0-255}
Default value: not applicable

slhrId Identifies the ANSI Home Location Register (HLR) as a service logic host route (established by ENT-SLHR-SCP) to a Service Control Point. The factory default is “NULL”.

Type: integer
Range: {0-31}
Default value: not applicable

gsmPrefix Identifies the prefix used by the ANSI HLR to signify the Global System for Mobile Communication (GSM) number. The factory default is “NULL”.

Type: string
Range: up to 10 hexadecimal (0-E) characters
Default value: not applicable

cfOverride Identifies whether the switch overrides the forwarding information received from the ANSI HLR with the original called party information. The factory default is "N". This parameter is not supported presently; leave it blank.

Type: BoolYN
Range: N = do not override the forwarding information received from the ANSI HLR
Y = override the forwarding information received from the ANSI HLR
Default value: not applicable

vmailPrefix Identifies the prefix used by the ANSI HLR for routing to the voicemail system, and which increments the ANSIVMAILFWDED value for *montype* in RTRV-PM-GMSC. The factory default is "NULL".

Type: string
Range: up to 21 hexadecimal (0-E) characters
Default value: not applicable

oprTmout Identifies the time (in seconds) before ANSI HLR query response expiry. The factory default is "10".

Type: integer
Range: {1-15}
Default value: not applicable

pst Identifies the primary state of the switch configured as an ANSI IS41 GMSC. The factory default is "OOS". You cannot change the value to "IS" if the value of *marketId*, *switchNum*, *smtc*, or *slhrId* is "NULL".

Type: enum
Range: IS = In Service – the switch is configured as an ANSI GMSC
OOS = Out Of Service – the switch is not configured as an ANSI GMSC
Default value: not applicable

Input Examples:

```
ED-GMSC-ANSISYS::::MARKETID=4,SWITCHNUM=4,SMTC=254,
   SLHRID=2,GSMPREFIX=NULL,CFOVERRIDE=N,VMAILPREFIX=3,
   OPRTMOUT=10:OOS;

RTRV-GMSC-ANSISYS;
```

Output Example:

```
   lucent 2005-02-27 14:37:49
M  0 COMPLD
   "COM:MRKTID=4,SWITCHNUM=4,SMTC=254,SLHRID=2,
      GSMPREFIX=NULL,CFOVERRIDE=N,VMAILPREFIX=3,
      OPRTMOUT=9:OOS"
;
```

Related Commands:

ED/RTRV-GMSC-GSMSYS

ED/RTRV-GMSC-GSMSYS

Commands:

ED-GMSC-GSMSYS: Edit GMSC GSM System

RTRV-GMSC-GSMSYS: Retrieve GMSC GSM System

Descriptions:

ED-GMSC-GSMSYS lets the user configure the system wide Global System for Mobile Communication (GSM) network parameters for the Gateway Mobile Switching Center (GMSC) functionality.

RTRV-GMSC-GSMSYS lets the user retrieve the system wide GSM network parameters for the GMSC functionality.

Category: Call Control **Security:** SA for ED, View for RTRV

Input Formats:

```
ED-GMSC-GSMSYS:[TID]:[<src>]:[CTAG]::
   [GMSCADDR=<gmscAddr>],[SLHRID=<slhrId>],
   [GSMCACHE=<gsmCache>],[CACHESIZE=<cacheSize>],
   [CFOVERRIDE=<cfOverride>],
   [VMAILPREFIX=<vmailPrefix>],[OPRTMOUT=<oprTmout>],
   [SRIACN=<sriAcn>],[RCHACN=<rchAcn>],
   [OPTROUTING=<optRouting>]:[<pst>];
RTRV-GMSC-GSMSYS:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:GMSCADDR=<gmscAddr>,SLHRID=<slhrId>,
      GSMCACHE=<gsmCache>,CACHESIZE=<cacheSize>,
      CFOVERRIDE=<cfOverride>,
      VMAILPREFIX=<vmailPrefix>,OPRTMOUT=<oprTmout>,
      SRIACN=<sriAcn>,RCHACN=<rchAcn>,
      OPTROUTING=<optRouting>:<pst>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

gmscAddr Identifies the ITU-T Rec. E.164 address assigned to the switch GSM GMSC. The factory default is "NULL".

Type: string
Range: up to 21 digits
Default value: not applicable

slhrId Identifies the Home Location Register (HLR) as a service logic host route (established by ENT-SLHR-SCP) to a Service Control Point. The factory default is "NULL".

Type: integer
Range: {0-31}
Default value: not applicable

gsmCache Identifies whether to enter mobile subscribers into the GSM cache (an internal listing of GSM subscribers). The factory default is "N".

Type: BoolYN
Range: N = do not enter mobile subscribers into the GSM cache
Y = enter mobile subscribers into the GSM cache
Default value: not applicable

cacheSize Identifies the maximum number of entries allowed in the GSM cache. The factory default is "500000".

Type: integer
Range: {1-1000000}
Default value: not applicable

cfOverride Identifies whether the switch overrides the forwarding information received from the GSM HLR with the original called party information. The factory default is "N". This parameter is not supported presently; leave it blank.

Type: BoolYN
Range: N = do not override the forwarding information received from the GSM HLR
Y = override the forwarding information received from the GSM HLR
Default value: not applicable

vmailPrefix Identifies the prefix used by the GSM HLR for routing to the voicemail system, and which increments the GSMVMAILFWDED value for *montype* in RTRV-PM-GMSC. The factory default is "NULL".

Type: string
Range: up to 21 hexadecimal (0-E) characters
Default value: not applicable

oprTmout Identifies the time (in seconds) before GSM HLR query response expiry. The factory default is "10".

Type: integer
Range: {1-15}
Default value: not applicable

sriAcn Identifies the Application Context Name for the Send Routing Information (SRI) GSM MAP operation. The factory default is "3" for GSM Phase 2+.

Type: integer
Range: {1-5}
Default value: not applicable

rchAcn Identifies the Application Context Name for the Resume Call Handling (RCH) GSM MAP operation. The factory default is "3" for GSM Phase 2+.

Type: integer
Range: {1-5}
Default value: not applicable

optRouting Identifies whether to enable Optimal Routing. The factory default is "N".

Type: BoolYN
Range: N = do not enable Optimal Routing
Y = enable Optimal Routing
Default value: not applicable

pst Identifies the primary state of the switch configured as a GSM GMSC. The factory default is "OOS". You cannot change the value to "IS" if the value of *gmscAddr* or *slhrId* is "NULL".

Type: enum
Range: IS = In Service – the switch is configured as a GSM GMSC
OOS = Out Of Service – the switch is not configured as a GSM GMSC
Default value: not applicable

Input Examples:

```
ED-GMSC-GSMSYS:::::GMSCADDR=3334445556,SLHRID=3,
   GSMCACHE=N,CACHESIZE=500000,CFOVERRIDE=N,
   VMAILPREFIX=NULL,OPRTMOUT=10,SRIACN=3,RCHACN=3,
   OPTROUTING=N:IS;

RTRV-GMSC-GSMSYS;
```

Output Example:

```
   lucent 2005-02-27 14:37:49
M  0 COMPLD
   "COM:GMSCADDR=3334445556,SLHRID=3,GSMCACHE=N,
      CACHESIZE=500000,CFOVERRIDE=N,VMAILPREFIX=NULL,
      OPRTMOUT=10,SRIACN=3,RCHACN=3,OPTROUTING=N:IS"
;
```

Related Commands:

ED/RTRV-GMSC-ANSISYS

ED/ENT/RTRV-SS7SYS

Commands:

ED-SS7SYS: Edit SS7 System

ENT-SS7SYS: Enter SS7 System

RTRV-SS7SYS: Retrieve SS7 System

Descriptions:

ED-SS7SYS lets the user change general system-wide ISUP parameters.

ENT-SS7SYS lets the user establish general system-wide ISUP parameters.

RTRV-SS7SYS lets the user retrieve general system-wide ISUP parameters.

Category: Call Control **Security:** SA for ED and ENT, View for RTRV

Input Formats:

```
ED-SS7SYS:[TID]:[<src>]:[CTAG]::[ISUPT18=<isupT18>],
   [ISUPT19=<isupT19>],[ISUPT20=<isupT20>],
   [ISUPT21=<isupT21>],[ISUPT22=<isupT22>],
   [ISUPT23=<isupT23>],[ISUPT28=<isupT28>],
   [ISUPTFGR=<isupTFGR>],[ISUPTGRES=<isupTGRes>],
   [MTP3T15=<mtp3T15>],[MTP3T16=<mtp3T16>],
   [MTP3T22=<mtp3T22>],[MTP3T23=<mtp3T23>],
   [MTP3T26=<mtp3T26>],[SSFVALID=<ssfValid>],
   [RSTREQ=<rstReq>],[ISUPT1=<isupT1>],
   [ISUPT5=<isupT5>],[ISUPT6=<isupT6>],
   [ISUPT7=<isupT7>],[ISUPT8=<isupT8>],
   [ISUPT33=<isupT33>],[ISUPT27=<isupT27>],
   [ISUPT34=<isupT34>],[ISUPTCRM=<isupTCRM>],
   [ISUPTCRA=<isupTCRA>],[ISUPT36=<isupT36>],
   [ISUPTCCR=<isupTCCR>],[ISUPTCCRT=<isupTCCRT>],
   [ISUPTCONG=<isupTCONG>],
   [RELLOCATION=<relLocation>],
   [QSIZE=<m3uaqSize>],[CONGLVL1=<m3uacongLvl1>],
   [CONGLVL2=<m3uacongLvl2>],
   [CONGLVL3=<m3uacongLvl3>],
   [RTOINITIAL=<sctprtoInitial>],[RTOMAX=<rtoMax>],
   [INTERVALTM=<intervalTM>],[DPCFWD=<dpcFwd>];
```

```
ENT-SS7SYS:[TID]:[<src>]:[CTAG]::<ownPc>:
   [ISUPT18=<isupT18>],[ISUPT19=<isupT19>],
   [ISUPT20=<isupT20>],[ISUPT21=<isupT21>],
   [ISUPT22=<isupT22>],[ISUPT23=<isupT23>],
   [ISUPT28=<isupT28>],[ISUPTFGR=<isupTFGR>],
   [ISUPTGRES=<isupTGRes>],[MTP3T15=<mtp3T15>],
   [MTP3T16=<mtp3T16>],[MTP3T22=<mtp3T22>],
   [MTP3T23=<mtp3T23>],[MTP3T26=<mtp3T26>],
   [SSFVALID=<ssfValid>],[RSTREQ=<rstReq>],
   [ISUPT1=<isupT1>],[ISUPT5=<isupT5>],
   [ISUPT6=<isupT6>],[ISUPT7=<isupT7>],
   [ISUPT8=<isupT8>],[ISUPT33=<isupT33>],
   [ISUPT27=<isupT27>],[ISUPT34=<isupT34>],
   [ISUPTCRM=<isupTCRM>],[ISUPTCRA=<isupTCRA>],
   [ISUPT36=<isupT36>],[ISUPTCCR=<isupTCCR>],
   [ISUPTCCRT=<isupTCCRT>],[ISUPTCONG=<isupTCONG>],
   [TMRINTERDGT=<tmrInterDgt>],
   [RELLOCATION=<relLocation>],
   [BICCTRANSPORT=<biccTransport>],
   [QSIZE=<m3uaqSize>],[CONGLVL1=<m3uacongLvl1>],
   [CONGLVL2=<m3uacongLvl2>],
   [CONGLVL3=<m3uacongLvl3>],
   [RTOINITIAL=<sctprtoInitial>],[RTOMAX=<rtoMax>],
   [INTERVALTM=<intervalTM>],[DPCFWD=<dpcFwd>];

RTRV-SS7SYS:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:<ownPc>:ISUPT18=<isupT18>,ISUPT19=<isupT19>,
      ISUPT20=<isupT20>,ISUPT21=<isupT21>,
      ISUPT22=<isupT22>,ISUPT23=<isupT23>,
      ISUPT28=<isupT28>,ISUPTFGR=<isupTFGR>,
      ISUPTGRES=<isupTGRes>,MTP3T15=<mtp3T15>,
      MTP3T16=<mtp3T16>,MTP3T22=<mtp3T22>,
      MTP3T23=<mtp3T23>,MTP3T26=<mtp3T26>,
      SSFVALID=<ssfValid>,RSTREQ=<rstReq>,
      ISUPT1=<isupT1>,ISUPT5=<isupT5>,ISUPT6=<isupT6>,
      ISUPT7=<isupT7>,ISUPT8=<isupT8>,
      ISUPT33=<isupT33>,ISUPT27=<isupT27>,
      ISUPT34=<isupT34>,ISUPTCRM=<isupTCRM>,
      ISUPTCRA=<isupTCRA>,ISUPT36=<isupT36>,
      ISUPTCCR=<isupTCCR>,ISUPTCCRT=<isupTCCRT>,
      ISUPTCONG=<isupTCONG>,TMRINTERDGT=<tmrInterDgt>,
      RELLOCATION=<relLocation>,
      BICCTRANSPORT=<biccTransport>,QSIZE=<m3uaqSize>,
      CONGLVL1=<m3uacongLvl1>,CONGLVL2=<m3uacongLvl2>,
      CONGLVL3=<m3uacongLvl3>,
      RTOINITIAL=<sctprtoInitial>,RTOMAX=<rtoMax>,
      INTERVALTM=<intervalTM>,DPCFWD=<dpcFwd>"
;
```

Parameters:

src Identifies the AID as a switch.

Type: COM
Range: COM
Default value: COM

ownPc Identifies the own point code.

Type: enum
Range: {0-255}-{0-255}-{0-255}
Default value: none

isupT18 Identifies the Timer T18 value (in seconds) for the ISUP layer. Timer T18 is started when a GROUP BLOCKING message is sent. This is terminated normally on receipt of a GROUP BLOCKING ACKNOWLEDGEMENT message.

Type: DecimalNum
Range: {0-100}
Default value: 10

isupT19 Identifies the Timer T19 value (in seconds) for the ISUP layer. Timer T19 is started when an INITIAL GROUP BLOCKING message is sent. It is terminated normally on receipt of a GROUP BLOCKING ACKNOWLEDGEMENT message.

Type: DecimalNum
Range: {0-300}
Default value: 60

isupT20 Identifies the Timer T20 value (in seconds) for the ISUP layer. Timer T20 is started when a GROUP UNBLOCKING message is sent. This is terminated normally on receipt of a GROUP UNBLOCKING ACKNOWLEDGEMENT message.

Type: DecimalNum
Range: {0-100}
Default value: 10

isupT21 Identifies the Timer T21 value (in seconds) for the ISUP layer. Timer T21 is started when an INITIAL GROUP UNBLOCKING message is sent. This is terminated normally on receipt of a GROUP UNBLOCKING ACKNOWLEDGEMENT message.

Type: DecimalNum
Range: {0-300}
Default value: 60

isupT22 Identifies the Timer T22 value (in seconds) for the ISUP layer. Timer T22 is started when a GROUP RESET message is sent. It is terminated normally on receipt of the acknowledgement.

Type: DecimalNum
Range: {0-100}
Default value: 10

isupT23 Identifies the Timer T23 value (in seconds) for the ISUP layer. Timer T23 is started when a GROUP RESET message is sent. It is terminated normally on receipt of the acknowledgement.

Type: DecimalNum
Range: {0-300}
Default value: 60

isupT28 Identifies the Timer T28 value (in seconds) for the ISUP layer. Timer T28 is started when a CIRCUIT GROUP QUERY message is sent. It is terminated normally on receipt of a CIRCUIT GROUP QUERY RESPONSE message.

Type: DecimalNum
Range: {0-300}
Default value: 10

isupTFGR Identifies the value for the ANSI First Group Received timer.

Type: DecimalNum
Range: {0-50}
Default value: 5

isupTGRes Identifies the value for the Group Reset timer.

Type: DecimalNum
Range: {0-3276.8}
Default value: 5

mtp3T15 Identifies the Timer T15 value (in seconds) for the MTP3 layer. Timer T15 identifies the period to wait before starting the route set congestion test.

Type: DecimalNum
Range: {0-10}
Default value: 3

mtp3T16 Identifies the Timer T16 value (in seconds) for the MTP3 layer. Timer T16 identifies the period to wait between route set congestion status updates.

Type: DecimalNum
Range: {0-10}
Default value: 1.4

mtp3T22 Identifies the Timer T22 value (in seconds) for the MTP3 layer. Timer T22 identifies the period after restart to wait for signaling links to become available before generating a link unavailable alarm message.

Type: DecimalNum
Range: {0-100}
Default value: 40

mtp3T23 Identifies the Timer T23 value (in seconds) for the MTP3 layer. Timer T23 identifies the period to wait after T22 to receive all traffic restart allowed messages.

Type: DecimalNum
Range: {0-100}
Default value: 10

mtp3T26 Identifies the Timer T26 value (in seconds) for the MTP3 layer. Timer T26 identifies the period to wait before repeating a traffic restart waiting message.

Type: DecimalNum
Range: {0-50}
Default value: 13

ssfValid Identifies the sub-service field (SSF) validity in MTP level 3. If true, the SSF of any message received on a link by MTP Level 3 is checked against the SSF configured for that link.

Type: BoolYN
Range: Y = valid
N = not valid
Default value: N

rstReq Indicates whether restart is required. If this field is not 0, the MTP Level 3 restart procedure is started by MTP Level 3 as soon as the first link becomes in-service.

Type: enum
Range: ANSI = ANSI restart protocol
NORST = restart not required
Default value: NORST

isupT1 Identifies the Timer T1 value (in seconds) for the ISUP layer. Timer T1 starts when a T1-RELEASE message is sent. It is terminated normally on receipt of an RLC message.

Type: DecimalNum
Range: {0-20}
Default value: 10

isupT5 Identifies the Timer T5 value (in seconds) for the ISUP layer. Timer T5 starts when a T5-INITIAL RELEASE message is sent. It is terminated normally after receipt of an RLC message.

Type: DecimalNum
Range: {0-300}
Default value: 60

isupT6 Identifies the Timer T6 value (in seconds) for the ISUP layer. Timer T6 starts when a T6-SUSPEND (network) message is sent. It is terminated normally on receipt of a RESUME (network) message or a RELEASE message.

Type: DecimalNum
Range: {0-100}
Default value: 21

isupT7 Identifies the Timer T7 value (in seconds) for the ISUP layer. Timer T7 starts when a T7-LATEST ADDRESS message is sent. It is terminated normally when the condition for normal release of address and routing information is met.

Type: DecimalNum
Range: {0-100}
Default value: 25

isupT8 Identifies the Timer T8 value (in seconds) for the ISUP layer. Timer T8 starts on receipt of a T8-INITIAL ADDRESS message by incoming international exchange.

Type: DecimalNum
Range: {0-100}
Default value: 13

isupT33 Identifies the Timer T33 value (in seconds) for the ISUP layer. Timer T33 starts when a T33-INFORMATION REQUEST message is sent. It is terminated normally on receipt of an INFO message.

Type: DecimalNum
Range: {0-100}
Default value: 13

isupT27 Identifies the Timer T27 value (in seconds) for the ISUP layer. Timer T27 starts when waiting for a continuity recheck. It is terminated normally on receipt of a CONTINUITY CHECK REQUEST message.

Type: DecimalNum
Range: {0-500}
Default value: 240

isupT34 Identifies the Timer T34 value (in seconds) for the ISUP layer. Timer T34 starts when waiting for continuity after recheck. A typical value is 2-4 seconds.

Type: DecimalNum
Range: {0-40}
Default value: 13

isupTCRM Identifies the timer value (in seconds) for the CIRCUIT RESERVATION SENT message in the ISUP layer. It is terminated normally on receipt of a CIRCUIT RESERVATION ACKNOWLEDGE message.

Type: DecimalNum
Range: {0-40}
Default value: 3

isupTCRA Identifies the timer value (in seconds) for the CIRCUIT RESERVATION ACKNOWLEDGE SENT message in the ISUP layer. It is terminated normally on receipt of an IAM.

Type: DecimalNum
Range: {0-100}
Default value: 20

isupT36 Identifies the Timer T36 value (in seconds) for the ISUP layer. Timer T36 specifies the period to wait for an SGM message.

Type: DecimalNum
Range: {0-100}
Default value: 10

isupTCCR Identifies the timer value (in seconds) for the CONTINUITY CHECK REQUEST RECEIVED message in the ISUP layer. It is initiated on receipt of an initial continuity message indicating failure and is terminated normally on receipt of a CONTINUITY CHECK REQUEST message.

Type: DecimalNum
Range: {0-100}
Default value: 20

isupTCCRT Identifies the timer value (in seconds) for the CONTINUITY CHECK REQUEST TRANSMITTED message in the ISUP layer. It is initiated when the CONTINUITY CHECK REQUEST message is sent and is terminated normally on receipt of a LOOPBACK ACKNOWLEDGEMENT message.

Type: DecimalNum
Range: {0-20}
Default value: 2

isupTCONG Identifies the timer value (in seconds) for the CONGESTED message in the ISUP layer. The timer is set when an ACM cannot be sent because of congestion/isolation of the preceding switch and is used to prevent the call from ringing the called party after the originating SPCS would have released the call. It is terminated normally on receipt of a REL message for the incoming circuit or on receipt of answer supervision.

Type: DecimalNum
Range: {22-32}
Default value: 22

tmrInterDgt Identifies the value (in seconds) of the inter-digits timer that detects the end of the called party number.

Type: DecimalNum
Range: {0-20}
Default value: 10

relLocation Identifies the release location used in cause value when ISUP internally releases a call (for example, due to timer expiry).

Type: enum
Range: INTNET = International network
LOCALIF = Local interface
NETINTER = Network beyond interworking point
NOINFOAV = No information available
PRIVNETLU = Private network serving the local user
PRIVNETRU = Private network serving the remote user
PUBNETLU = Public network serving the local user
PUBNETRU = Public network serving the remote user
TRANNET = Transit network
USER = User
Default value: NETINTER

biccTransport Identifies the type of transport used by BICC (Bearer-Independent Call Control).

Type: enum
Range: M3UA = enables transport over an IP network
MTP3 = MTP Level 3, enables transport over TDM
Default value: M3UA

m3uaqSize Identifies the size (in bytes) of the congestion queue for M3UA that is maintained for each association, after which subsequent messages are dropped.

Type: integer
Range: {1-1500}
Default value: 1000

m3uacongLvl1 Identifies the M3UA level 1 congestion threshold (in bytes). SS7 congestion level 1 is declared when the congestion queue size reaches this level.

Type: integer
Range: {1-1500}
Default value: 250

m3uacongLvl2 Identifies the M3UA level 2 congestion threshold (in bytes). SS7 congestion level 2 is declared when the congestion queue size reaches this level.

Type: integer
Range: {1-1500}
Default value: 500

m3uacongLvl3 Identifies the M3UA level 3 congestion threshold (in bytes). SS7 congestion level 3 is declared when the congestion queue size reaches this level.

Type: integer
Range: {1-1500}
Default value: 750

sctprtoInitial Identifies the minimum value (in seconds) of the SCTP retransmission timer after recalculating RTO.

Type: DecimalNum
Range: {3-10}
Default value: 3

rtoMax Identifies the maximum value (in seconds) of the SCTP retransmission timer after recalculating RTO.

Type: DecimalNum
Range: {3-60}
Default value: 5

intervalTM Identifies the value (in seconds) of the SCTP interval timer for all heartbeat datagrams. A value of "0" disables heartbeat.

Type: DecimalNum
Range: {0-1000}
Default value: 5

dpcFwd Identifies whether to enable DPC forwarding which allows "tandem/transfer" of SS7 messages received by, but not destined for the switch.

Type: BoolYN
Range: Y = enable DPC forwarding
N = disable DPC forwarding
Default value: N

Input Examples:

```
ED-SS7SYS:::::ISUPT18=10,ISUPT19=1,ISUPT20=10,
   ISUPT21=1,ISUPT22=10,ISUPT23=1,ISUPT28=10,
   ISUPTFGR=1,ISUPTGRES=5,MTP3T15=3,MTP3T16=1.4,
   MTP3T22=40,MTP3T23=10,MTP3T26=13,SSFVALID=N,
   RSTREQ=NORST,ISUPT1=10, ISUPT5=1,ISUPT6=21,
   ISUPT7=25,ISUPT8=13,ISUPT33=13, ISUPT27=4,
   ISUPT34=13,ISUPTCRM=3,ISUPTCRA=20,ISUPT36=10,
   ISUPTCCR=20, ISUPTCCRT=2,ISUPTCONG=22,
   RELLOCATION=PUBNETLU,QSIZE=1000,CONGLVL1=250,
   CONGLVL2=500,CONGLVL3=750,RTOINITIAL=3,RTOMAX=5,
   INTERVALTM=5,DPCFWD=N;

ENT-SS7SYS:::::245-5-18:ISUPT18=10,ISUPT19=1,
   ISUPT20=10,ISUPT21=1,ISUPT22=10,ISUPT23=1,
   ISUPT28=10,ISUPTFGR=1,ISUPTGRES=5,MTP3T15=3,
   MTP3T16=1.4,MTP3T22=40,MTP3T23=10,MTP3T26=13,
   SSFVALID=N,RSTREQ=NORST, ISUPT1=10,ISUPT5=1,
   ISUPT6=21,ISUPT7=25,ISUPT8=13,ISUPT33=13,ISUPT27=4,
   ISUPT34=13,ISUPTCRM=3,ISUPTCRA=20,ISUPT36=10,
   ISUPTCRA=20,ISUPTCCRT=2,ISUPTCONG=22,
   TMRINTERDGT=10,RELLOCATION=PUBNETLU,
   BICCTRANSPORT=M3UA,QSIZE=1000,CONGLVL1=250,
   CONGLVL2=500,CONGLVL3=750,RTOINITIAL=3,RTOMAX=5,
   INTERVALTM=5,DPCFWD=N;

RTRV-SS7SYS;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:245-5-18:ISUPT18=10,ISUPT19=1,ISUPT20=10,
      ISUPT21=1,ISUPT22=10,ISUPT23=1,ISUPT28=10,
      ISUPTFGR=1,ISUPTGRES=5,MTP3T15=3,MTP3T16=1.4,
      MTP3T22=40,MTP3T23=10,MTP3T26=13,SSFVALID=N,
      RSTREQ=NORST,ISUPT1=10,ISUPT5=1,ISUPT6=21,
      ISUPT7=25,ISUPT8=13,ISUPT33=13,ISUPT27=4,
      ISUPT34=13,ISUPTCRM=3,ISUPTCRA=20,ISUPT36=10,
      ISUPTCCR=20,ISUPTCCRT=2,ISUPTCONG=22,
      TMRINTERDGT=10,RELLOCATION=PUBNETLU,
      BICCTRANSPORT=M3UA,QSIZE=1000,CONGLVL1=250,
      CONGLVL2=500,CONGLVL3=750,RTOINITIAL=3,RTOMAX=5,
      INTERVALTM=5,DPCFWD=N"
;
```

Related Commands: none

ED/RTRV-SWITCH-CFG

Commands:

ED-SWITCH-CFG: Edit Switch Configuration

RTRV-SWITCH-CFG: Retrieve Switch Configuration

Descriptions:

ED-SWITCH-CFG lets the user modify configuration data for the switch. This data includes the carrier ID and name, the specified number of digits required for a local call, the number for the TRS relay center, whether to send or use the subscriber name in the IAM, whether to use the subscriber name if it is available in the IAM, whether to use the charge number for caller number display in ISDN-PRI calls, whether to allow ten-digit long-distance dialing, whether to block CNAM queries for private numbers or SCP queries for operator-assisted tollfree dialed numbers, the default LATA for the switch, whether to enable on-switch CNAM service, whether to restrict LNP queries to the homed LATA, and up to five general-purpose variables for custom functionality.

RTRV-SWITCH-CFG lets the user retrieve configuration data for the switch.

Category: Call Control **Security:** SA for ED, View for RTRV

Input Formats:

```
ED-SWITCH-CFG:[TID]:[<src>]:[CTAG]::[<OWNCID=owncid>],
   [<OWNCNAM=owncnam>],[<LOCNUMLEN=locnumlen>],
   [<DN711=dn>],[SENDIAMNAME=<sendiamname>],
   [USEIAMNAME=<useiamname>],[UCNCNDPRI=<ucncndpri>]
   [ALWTENDGTLDDIAL=<alwtendgtlddial>],
   [BLOCKCNAMP=<blockcnamp>],
   [OPRTOLLFREE=<oprtollfree>],
   [OWNLATAID=<ownlataid>],[LOCCNAM=<locCNAM>],
   [FRAUDTRAPPRFL=<fraudtrapprfl>],
   [SWITCHID=<switchid>],
   [IGNORESAMELATALNPRSTRN=<ignoreSameLataLnpRstrn>],
   [CUSTVAR1=custVar1],[CUSTVAR2=custVar2],
   [CUSTVAR3=custVar3],[CUSTVAR4=custVar4],
   [CUSTVAR5=custVar5];

RTRV-SWITCH-CFG:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:OWNCID=<owncid>,OWNCNAM=<owncnam>,
      LOCNUMLEN=<locnumlen>,DN711=<dn>,
      SENDIAMNAME=<sendiamname>,
      USEIAMNAME=<useiamname>,UCNCNDPRI=<ucncndpri>,
      ALWTENDGTLDDIAL=<alwtendgtlddial>,
      BLOCKCNAMP=<blockcnamp>,
      OPRTOLLFREE=<oprtollfree>,OWNLATAID=<ownlataid>,
      LOCCNAM=<locCNAM>,FRAUDTRAPPRFL=<fraudtrapprfl>,
      SWITCHID=<switchid>,
      IGNORESAMELATALNPRSTRN=<ignoreSameLataLnpRstrn>,
      CUSTUSE1=<custUse1>,CUSTVAR1=<custVar1>,
      CUSTUSE2=<custUse2>,CUSTVAR2=<custVar2>,
      CUSTUSE3=<custUse3>,CUSTVAR3=<custVar3>,
      CUSTUSE4=<custUse4>,CUSTVAR4=<custVar4>,
      CUSTUSE5=<custUse5>,CUSTVAR5=<custVar5>"
;
```

Input Parameters:

src Identifies the AID as the switch (COM).

Type: COM
Range: COM
Default value: COM

ownCid Identifies the carrier for the switch. The factory default is “NULL”.

Type: integer
Range: {0-9999}
Default value: not applicable

ownCnam Identifies the name of the carrier for the switch. The factory default is “NULL”.

Type: string
Range: up to 20 alphanumeric characters
Default value: not applicable

locNumLen Identifies the number of digits required to complete a local call for the area served by the switch. This parameter is not currently supported; leave it blank. The factory default is “10”.

Type: LocalNumLength
Range: 7 = seven digits required
10 = ten digits required
Default value: not applicable

dn Identifies the number of a Telecommunication Relay Services (TRS) relay center to which “711” calls from subscribers with hearing or speech disabilities are routed. The factory default is “NULL”.

Type: string
Range: exactly 10 digits
Default value: not applicable

sendIAMName Identifies whether to send the available subscriber name in the outgoing IAM. The factory default is “N”.

Type: BoolYN
Range: N = do not send subscriber name
Y = send subscriber name
Default value: not applicable

useIAMName Identifies whether to use the subscriber name if it is available in the IAM. The factory default is “N”.

Type: BoolYN
Range: N = do not use the subscriber name
Y = use subscriber name
Default value: not applicable

ucnCndPri Identifies whether to use the charge number for caller number display in ISDN-PRI calls. The factory default is “N”.

Type: BoolYN
Range: N = do not use charge number for caller number display
Y = use charge number for caller number display
Default value: not applicable

alwtendgtlddial Identifies whether to allow ten-digit long-distance dialing. The factory default is “N”.

Type: BoolYN
Range: N = do not allow ten-digit long-distance dialing
Y = allow ten-digit long-distance dialing
Default value: not applicable

blockcnamp Identifies whether to block CNAM queries for private numbers. The factory default is “N”.

Type: BoolYN
Range: N = do not block CNAM queries for private numbers
Y = block CNAM queries for private numbers
Default value: not applicable

oprtollfree Identifies whether to block SCP queries for operator-assisted tollfree dialed numbers. The factory default is “Y”.

Type: BoolYN
Range: N = do not block SCP queries for operator-assisted tollfree dialed numbers
Y = block SCP queries for operator-assisted tollfree dialed numbers
Default value: not applicable

ownlataid Identifies the default LATA for the switch – used for tollfree SCP queries when incoming tollfree calls on an ISDN trunk don’t have Calling Party ID. The factory default is “NULL”.

Type: enum
Range: {100-999, 10000-99999}
NULL = no value
Default value: not applicable

locCNAM Identifies whether to enable on-switch CNAM service. When enabled, CNAM delivery (when both parties are homed on the switch) uses the on-switch database – the switch does not query an SCP. The factory default is “N”.

Type: BoolYN
Range: N = do not enable on-switch CNAM service
Y = enable on-switch CNAM service
Default value: not applicable

fraudTrapPrfl Identifies the fraud trap profile that defines how the switch behaves when encountering a fraud scenario. The factory default is “NULL”.

Type: string
Range: up to 10 alphanumeric characters
Default value: not applicable

switchid Identifies the terminating switch for use by Carrier Advanced Intelligent Networks (CAIN). The factory default is "0".

Type: integer
Range: {0-65535}
Default value: not applicable

ignoreSameLataLnpRstrn Identifies whether to ignore the restriction on LNP queries requiring the called party number for line-originated calls to be in the same LATA as the switch. The factory default is "N".

Type: BoolYN
Range: N = perform LNP queries only for calls in the same LATA
Y = perform LNP queries for all calls
Default value: not applicable

custUse1 Identifies (in RTRV output) the use for custom variable 1. The factory default is "NULL".

Type: string
Range: up to 32 characters
Default value: not applicable

custVar1 Identifies the value of custom variable 1. The factory default is "NULL".

Type: string
Range: up to 16 characters
Default value: not applicable

custUse2 Identifies (in RTRV output) the use for custom variable 2. The factory default is "NULL".

Type: string
Range: up to 32 characters
Default value: not applicable

custVar2 Identifies the value of custom variable 2. The factory default is "NULL".

Type: string
Range: up to 16 characters
Default value: not applicable

custUse3 Identifies (in RTRV output) the use for custom variable 3. The factory default is "NULL".

Type: string
Range: up to 32 characters
Default value: not applicable

custVar3 Identifies the value of custom variable 3. The factory default is "NULL".

Type: string
Range: up to 16 characters
Default value: not applicable

custUse4 Identifies (in RTRV output) the use for custom variable 4. The factory default is "NULL".

Type: string
Range: up to 32 characters
Default value: not applicable

custVar4 Identifies the value of custom variable 4. The factory default is "NULL".

Type: string
Range: up to 16 characters
Default value: not applicable

custUse5 Identifies (in RTRV output) the use for custom variable 5. The factory default is "NULL".

Type: string
Range: up to 32 characters
Default value: not applicable

custVar5 Identifies the value of custom variable 5. The factory default is "NULL".

Type: string
Range: up to 16 characters
Default value: not applicable

Input Examples:

```
ED-SWITCH-CFG:::::OWNCID=1,OWNCNAM=NULL,LOCNUMLEN=10,
   DN711=NULL,SENDIAMNAME=N,USEIAMNAME=N,UCNCNDPRI=N,
   ALWTENDGTLDDIAL=N,BLOCKCNAMP=N,OPRTOLLFREE=Y,
   OWNLATAID=NULL,LOCCNAM=N,FRAUDTRAPPRFL=NULL,
   SWITCHID=0,IGNORESAMELATALNPRSTRN=N,CUSTUSE1=NULL,
   CUSTVAR1=NULL,CUSTUSE2=NULL,CUSTVAR2=NULL,
   CUSTUSE3=NULL,CUSTVAR3=NULL,CUSTUSE4=NULL,
   CUSTVAR4=NULL,CUSTUSE5=NULL,CUSTVAR5=NULL;

RTRV-SWITCH-CFG;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:OWNCID=1,OWNCNAM=VERIZON,LOCNUMLEN=10,
      DN711=NULL,SENDIAMNAME=N,USEIAMNAME=N,
      UCNCNDPRI=N,ALWTENDGTLDDIAL=N,BLOCKCNAMP=N,
      OPRTOLLFREE=Y,OWNLATAID=NULL,LOCCNAM=N,
      FRAUDTRAPPRFL=NULL,SWITCHID=0,
      IGNORESAMELATALNPRSTRN=N,CUSTUSE1=NULL,
      CUSTVAR1=NULL,CUSTUSE2=NULL,CUSTVAR2=NULL,
      CUSTUSE3=NULL,CUSTVAR3=NULL,CUSTUSE4=NULL,
      CUSTVAR4=NULL,CUSTUSE5=NULL,CUSTVAR5=NULL"
;
```

Related Commands: none

ED/RTRV-TRAFFICSTATS

Commands:

ED-TRAFFICSTATS: Edit Traffic Statistics

RTRV-TRAFFICSTATS: Retrieve Traffic Statistics

Descriptions:

ED-TRAFFICSTATS lets the user set a system-wide flag that enables or disables sending call traffic statistics from the switch to a statistics data server.

RTRV-TRAFFICSTATS lets the user retrieve the value of a system-wide flag that enables or disables sending call traffic statistics from the switch to a statistics data server.

Category: Call Control **Security:** NSA for ED, View for RTRV

Input Formats:

```
ED-TRAFFICSTATS:[TID]:[<src>]:[CTAG]::<isOos>;
RTRV-TRAFFICSTATS:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<com>:<isOos>"
;
```

Parameters:

src Identifies the AID as a switch.

Type: COM
Range: COM
Default value: COM

isOos Indicates whether call traffic statistics processing is set to be in service or out of service.

Type: enum
Range: IS = In service
OOS = Out of service
Default value: none

Input Examples:

```
ED-TRAFFICSTATS:::::IS;
RTRV-TRAFFICSTATS;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:IS"
;
```

Related Commands: none

INIT-REG-GMSC / RTRV-PM-GMSC

Commands:

INIT-REG-GMSC: Initialize Register GMSC

RTRV-PM-GMSC: Retrieve Performance Monitors GMSC

Descriptions:

INIT-REG-GMSC lets the user initialize one or more storage registers or event counters for GMSC (Gateway Mobile Switching Center) message statistics.

RTRV-PM-GMSC lets the user retrieve current and historical performance data related to GMSC (Gateway Mobile Switching Center) messages.

Category: Signaling **Security:** NSA for INIT-REG, View for RTRV-PM

Input Formats:

```
INIT-REG-GMSC:[TID]:[<src>]:[CTAG]::[<montype>],
   [<monval>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

```
RTRV-PM-GMSC:[TID]:[<src>]:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<src>:<montype>,<monval>,[<vldty>],[<locn>],
      [<dirn>],[<tmper>],[<mondat>],[<montm>]"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

montype Identifies a type of monitored parameter for GMSC messages.

Type: enum
Range: ALL = All monitored parameters
ANSICALLSFWDED = total number of calls forwarded by ANSI HLR
ANSICALLSREDIRECTED = total number of ANSI calls redirected by the serving MSC
ANSICALLSTRANSFERED = total number of ANSI calls forwarded after routing to a TLDN.
ANSIVMAILFWDED = total number of ANSI calls forwarded to voicemail
CACHEDCALLS = total number of calls subjected to successful GSM cache lookup
DUALDIPCALLS = total number of calls subjected to dual dips; that is, both an ANSI IS41 and a GSM HLR query
FAILEDMTCALLS = total number of mobile terminating calls failed due to unknown subscriber at HLR
GSMCALLSFWDED = total number of calls forwarded by GSM HLR
GSMCALLSREDIRECTED = total number of GSM calls redirected by the visiting MSC
GSMVMAILFWDED = total number of GSM calls forwarded to voicemail
MSRNCALLS = total number of calls routed using a GSM Mobile Subscriber Roaming Number (MSRN)
SUCCESSMTCALLS = total number of mobile terminating calls successfully handled
TLDNCALLS = total number of calls routed using an ANSI Temporary Local Directory Number (TLDN)
TOTALMTCALLS = total number of mobile terminating calls handled
Default value: ALL

monval Identifies the monitored value as either the value to which the register identified by *montype* is to be initialized (for INIT-REG), or (for RTRV-PM output) the measured value of the monitored parameter. The value is in the form of numeric counts or rates. This parameter is presently not supported; leave it blank.

Type: integer
Range: {0-2147483647}
Default value: 0

monlev Identifies (for RTRV-PM input) the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

vldty Identifies (for RTRV-PM output) the validity of the monitored interval; that is, whether the information for the specified time period was accumulated over the entire time period or some portion of it. This parameter is not supported presently; its value will be “NULL”.

Type: enum
Range: ADJ = Data manually adjusted or initialized
COMPL = Data accumulated over the entire time period
LONG = Data accumulated over greater than the entire time period
NA = Data not available
PRTL = Data accumulated over a portion of the time period
Default value: not applicable for output

locn Identifies the location of the storage counters to be initialized. This parameter is presently not supported; leave it blank.

Type: Location
Range: FEND = Far end
NEND = Near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters relative to the switch. This parameter is presently not supported; leave it blank.

Type: Direction
Range: BTH = Both directions
RCV = Receive direction only
TRMT = Transmit direction only
Default value: BTH

tmper Identifies the accumulation period for performance counters. The only values currently allowed for *tmper* are “15-MIN” and “24-HR”. A null value defaults to both applicable accumulation periods. This parameter is presently not supported; leave it blank.

Type: TimePeriod
Range: {1}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)
Default value: both 15-MIN and 24-HR

mondat Identifies the monitored date. The value indicates the beginning date for the performance-monitoring or storage register period defined by *tmper*. The format is MM-DD. This parameter is presently not supported; leave it blank.

Type: MonitoredDate
Range: {1-12}-{1-31}
Default value: current date

montm Identifies the monitored time. The value indicates the beginning time of day for the performance-monitoring or storage register period defined by *tmper*. The format is HH-MM. This parameter is presently not supported; leave it blank.

Type: MonitoredTime
Range: {0-23}-{0-59}
Default value: current time

Input Examples:

```
INIT-REG-GMSC;
RTRV-PM-GMSC;
```

Output Example:

```
   lucent 2005-02-27 14:37:49
M  0 COMPLD
   "COM:TOTALMTCALLS,0,,,,,,"
   "COM:SUCCESSMTCALLS,0,,,,,,"
   "COM:FAILEDMTCALLS,0,,,,,,"
   "COM:DUALDIPCALLS,0,,,,,,"
   "COM:TLDNCALLS,0,,,,,,"
   "COM:MSRNCALLS,0,,,,,,"
   "COM:ANSICALLSFWDED,0,,,,,,"
   "COM:GSMCALLSFWDED,0,,,,,,"
   "COM:CACHEDCALLS,0,,,,,,"
   "COM:ANSICALLSREDIRECTED,0,,,,,,"
   "COM:GSMCALLSREDIRECTED,0,,,,,,"
   "COM:ANSIVMAILFWDED,0,,,,,,"
   "COM:GSMVMAILFWDED,0,,,,,,"
   "COM:ANSICALLSTRANSFERED,0,,,,,,"
;
```

Related Commands: none

RTRV/SET-DATASERVER-HOSTCFG

Commands:

RTRV-DATASERVER-HOSTCFG: Retrieve DATASERVER HOSTCFG

SET-DATASERVER-HOSTCFG: Set DATASERVER HOSTCFG

Descriptions:

RTRV-DATASERVER-HOSTCFG lets the user retrieve the IP addresses and retry timer values for the UNIX systems running the billing application.

SET-DATASERVER-HOSTCFG lets the user define the IP addresses and retry timer values for the UNIX systems running the billing application.

Category: Call Control **Security:** ADMIN for SET, View for RTRV

Input Formats:

```
RTRV-DATASERVER-HOSTCFG:[TID]:[<COM>]:[CTAG];

SET-DATASERVER-HOSTCFG:[TID]:[<COM>]:[CTAG]::
   [DATASERVERANET1=<billing_dataserver_a1>],
   [DATASERVERBNET1=<billing_dataserver_b1>],
   [DATASERVERANET2=<billing_dataserver_a2>],
   [DATASERVERBNET2=<billing_dataserver_b2>],
   [INITRETRYTMRANET1=<initRetryTmrAnet1>],
   [FAILRETRYTMRANET1=<failRetryTmrAnet1>],
   [INITRETRYTMRBNET1=<initRetryTmrBnet1>],
   [FAILRETRYTMRBNET1=<failRetryTmrBnet1>],
   [INITRETRYTMRANET2=<initRetryTmrAnet2>],
   [FAILRETRYTMRANET2=<failRetryTmrAnet2>],
   [INITRETRYTMRBNET2=<initRetryTmrBnet2>],
   [FAILRETRYTMRBNET2=<failRetryTmrBnet2>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<COM>:DATASERVERANET1=<billing_dataserver_a1>,
      DATASERVERBNET1=<billing_dataserver_b1>,
      DATASERVERANET2=<billing_dataserver_a2>,
      DATASERVERBNET2=<billing_dataserver_b2>,
      INITRETRYTMRANET1=<initRetryTmrAnet1>,
      FAILRETRYTMRANET1=<failRetryTmrAnet1>,
      INITRETRYTMRBNET1=<initRetryTmrBnet1>,
      FAILRETRYTMRBNET1=<failRetryTmrBnet1>,
      INITRETRYTMRANET2=<initRetryTmrAnet2>,
      FAILRETRYTMRANET2=<failRetryTmrAnet2>,
      INITRETRYTMRBNET2=<initRetryTmrBnet2>,
      FAILRETRYTMRBNET2=<failRetryTmrBnet2>,
      DATASERVERCONN=<billing_dataserver_conn>"
;
```

Parameters:

COM Identifies the AID as a switch.

Type: COM
Range: COM
Default: COM

billing_dataserver_a1 Identifies the IP address of the primary billing data server.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default: NULL

billing_dataserver_b1 Identifies the IP address of the first alternate billing data server.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default: NULL

billing_dataserver_a2 Identifies the IP address of the second alternate billing data server.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default: NULL

billing_dataserver_b2 Identifies the IP address of the third alternate billing data server.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default: NULL

initRetryTmrAnet1 Identifies the time, in seconds, that the switch attempts to connect to the primary data server during the initial connection process before attempting to connect to the first alternate data server.

Type: integer
Range: {0-18000}
Default: 1

failRetryTmrAnet1 Identifies the time, in seconds, that the switch attempts to reconnect to the primary data server after a communication failure before attempting to connect to the first alternate data server.

Type: integer
Range: {0-18000}
Default: 5

initRetryTmrBnet1 Identifies the time, in seconds, that the switch attempts to connect to the first alternate data server during the initial connection process before attempting to connect to the second alternate data server.

Type: integer
Range: {0-18000}
Default: 0

failRetryTmrBnet1 Identifies the time, in seconds, that the switch attempts to reconnect to the first alternate data server after a communication failure before attempting to connect to the second alternate data server.

Type: integer
Range: {0-18000}
Default: 1

initRetryTmrAnet2 Identifies the time, in seconds, that the switch attempts to connect to the second alternate data server during the initial connection process before attempting to connect to the third alternate data server.

Type: integer
Range: {0-18000}
Default: 0

failRetryTmrAnet2 Identifies the time, in seconds, that the switch attempts to reconnect to the second alternate data server after a communication failure before attempting to connect to the third alternate data server.

Type: integer
Range: {0-18000}
Default: 1

initRetryTmrBnet2 Identifies the time, in seconds, that the switch attempts to connect to the third alternate data server during the initial connection process before attempting to connect to the primary data server.

Type: integer
Range: {0-18000}
Default: 0

failRetryTmrBnet2 Identifies the time, in seconds, that the switch attempts to reconnect to the third alternate data server after a communication failure before attempting to connect to the primary data server.

Type: integer
Range: {0-18000}
Default: 1

billing_dataserver_conn Identifies the IP address of the currently connected billing dataserver.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

Input Examples:

```
RTRV-DATASERVER-HOSTCFG;
```

```
SET-DATASERVER-HOSTCFG:::::DATASERVEANET1=10.5.0.98,
   DATASERVEBNET1=NULL,DATASERVEANET2=10.5.0.99
   DATASERVEANET1=NULL,INITRETRYTMRANET1=1,
   FAILRETRYTMRANET1=5,INITRETRYTMRBNET1=0,
   FAILRETRYTMRBNET1=1,INITRETRYTMRANET2=0,
   FAILRETRYTMRANET2=1,INITRETRYTMRBNET2=0,
   FAILRETRYTMRBNET2=1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:DATASERVERANET1=10.5.0.98,
      DATASERVERBNET1=NULL,DATASERVERANET2=10.5.0.99,
      DATASERVERBNET2=NULL,INITRETRYTMRANET1=1,
      FAILRETRYTMRANET1=5,INITRETRYTMRBNET1=0,
      FAILRETRYTMRBNET1=1,INITRETRYTMRANET2=0,
      FAILRETRYTMRANET2=1,INITRETRYTMRBNET2=0,
      FAILRETRYTMRBNET2=1,DATASERVERCONN=10.5.0.98"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-CALLING-AREA

Commands:

DLT-CALLING-AREA: Delete Calling Area

ED-CALLING-AREA: Edit Calling Area

ENT-CALLING-AREA: Enter Calling Area

RTRV-CALLING-AREA: Retrieve Calling Area

Descriptions:

DLT-CALLING-AREA lets the user delete an association between a local calling area and a rate center.

ED-CALLING-AREA lets the user change the number of digits a subscriber must dial to enable the switch to route a call within the local calling area.

ENT-CALLING-AREA lets the user establish an association between a local calling area and a rate center. ENT-CALLING-AREA will not work unless the following commands have already been issued in the listed order: ENT-COUNTRY, ENT-NATIONAL-NPA, ENT-HOME-NPA, and ENT-RATE-CENTER.

RTRV-CALLING-AREA lets the user retrieve all associations between a local calling area and a rate center. The command also can be used to determine the existence of a specific calling area / rate center association hosted by the Lucent Compact Switch.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-CALLING-AREA:[TID]:<CallingAreaCenterName>:[CTAG];
ED-CALLING-AREA:[TID]:<CallingAreaCenterName>:[CTAG]::
   DGTSDIAL=<dgtsDial>;
ENT-CALLING-AREA:[TID]:<CallingAreaCenterName>:
   [CTAG]::[DGTSDIAL=<dgtsDial>];
RTRV-CALLING-AREA:[TID]:
   [<CallingAreaCenterName>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<CallingAreaCenterName>:DGTSDIAL=<dgtsDial>"
;
```

Parameters:

CallingAreaCenterName Identifies the AID as an association between a local calling area and a rate center. The first part of the AID identifies the name of the calling area with an integer of 1 to 1024; the second part of the AID identifies the name of the rate center with a string of up to 31 characters. A null value for the second string in the range (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the system retrieves all rate centers associated by the switch with the local calling area specified by the first string in the range. If you specify a nonexistent rate center for the second string in the range, the system will return a “DENY – SROF” message.

Type: CALLINGAREAAID
Range: CALLINGAREAID-CENTERNAMESTRING, where
CALLINGAREAID = {1-1024}
CENTERNAMESTRING = up to 31 characters
Default value: none

dgtsDial Identifies the number of digits a subscriber must dial to enable the switch to route a call within the local calling area.

Type: BoolYN
Range: 7 = exactly seven digits required to route a call within the homed NPA
10 = exactly ten digits required to route a call within the homed NPA
7&10 = the switch accepts either seven or ten digits to route a call within the homed NPA
Default value: 7&10

Input Examples:

```
DLT-CALLING-AREA::1-RATECENTER2;

ED-CALLING-AREA::1-RATECENTER2:::
   DGTSDIAL=7&10;

ENT-CALLING-AREA::1-RATECENTER2;

RTRV-CALLING-AREA::1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1-RATECENTER1:DGTSDIAL=10"
   "1-RATECENTER2:DGTSDIAL=7&10"
   "1-RATECENTER3:DGTSDIAL=10"
;
```

Related Commands: none

DLT/ENT/RTRV-COUNTRY

Commands:

DLT-COUNTRY: Delete Country

ENT-COUNTRY: Enter Country

RTRV COUNTRY: Retrieve Country

Descriptions:

DLT-COUNTRY lets the user delete a country code from the system.

ENT-COUNTRY lets the user add a country code to the system.

RTRV COUNTRY lets the user retrieve all of the country codes in the system.

Category: Call Control **Security:** SA for DLT and ENT, View for RTRV

Input Formats:

```
DLT-COUNTRY:[TID]:<countryCode>:[CTAG];
ENT-COUNTRY:[TID]:<countryCode>:[CTAG];
RTRV-COUNTRY:[TID]:[<countryCode>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<countryCode>"
;
```

Parameters:

countryCode Identifies the AID as a country code. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all country codes configured in the system will be returned.

Type: CCAid
Range: {1-99999}
Default value: none

Input Examples:

```
DLT-COUNTRY::52;
ENT-COUNTRY::52;
RTRV-COUNTRY;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1"
   "52"
;
```

Related Commands: none

DLT/ENT/RTRV-HOME-NPA

Commands:

DLT-HOME-NPA: Delete Home NPA

ENT-HOME-NPA: Enter Home NPA

RTRV-HOME-NPA: Retrieve Home NPA

Descriptions:

DLT-HOME-NPA lets the user delete a homed NPA (Numbering Plan Area) from the list of all of the NPAs hosted on the Lucent Compact Switch.

ENT-HOME-NPA lets the user add a homed NPA (Numbering Plan Area) within a country to the list of the NPAs hosted by the Lucent Compact Switch. ENT-HOME-NPA will not work unless the following commands have already been issued in the listed order: ENT-COUNTRY and ENT-NATIONAL-NPA.

RTRV-HOME-NPA lets the user retrieve all NPAs (Numbering Plan Areas) hosted by the Lucent Compact Switch within a country. The command also can be used to determine the existence of a specific NPA hosted by the switch.

Category: Call Control **Security:** SA for DLT and ENT, View for RTRV

Input Formats:

```
DLT-HOME-NPA:[TID]:<CcNpa>:[CTAG];
ENT-HOME-NPA:[TID]:<CcNpa>:[CTAG];
RTRV-HOME-NPA:[TID]:<CcNpa>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<CcNpa>"
;
```

Parameters:

CcNpa Identifies the AID as a homed NPA within a country. The first number in the range identifies the country code; the second identifies the homed NPA and is optional in DLT and RTRV. A null value for the second number in the range (in DLT and RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the system deletes or retrieves all NPAs hosted by the Lucent Compact Switch for the country specified by the first number in the range. If you specify a nonexistent NPA for the second number in the range, the system will return a "DENY – SROF" message.

Type: NNPAAid
Range: {1-99999}[-{200-999}]
Default value: none

Input Examples:

```
DLT-HOME-NPA::01-508;
ENT-HOME-NPA::01-508;
RTRV-HOME-NPA::01;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "01-508"
   "01-617"
   "01-781"
   "01-978"
;
```

Related Commands: none

DLT/ENT/RTRV-HOME-NXX

Commands:

DLT-HOME-NXX: Delete Home NXX

ENT-HOME-NXX: Enter Home NXX

RTRV-HOME-NXX: Retrieve Home NXX

Descriptions:

DLT-HOME-NXX lets the user delete a homed NXX (exchange) in an NPA (area code) from the list of all of the NXXs hosted on the Lucent Compact Switch.

ENT-HOME-NXX lets the user add a homed NXX (exchange) in a specific NPA (Numbering Plan Area) within a country to the list of the NXXs hosted by the Lucent Compact Switch. ENT-HOME-NXX will not work unless the following commands have already been issued in the listed order: ENT-COUNTRY, ENT-NATIONAL-NPA, and ENT-HOME-NPA.

RTRV-HOME-NXX lets the user retrieve all NXXs (exchanges) hosted by the Lucent Compact Switch for a specific NPA within a country. The command also can be used to determine the existence of a specific NXX hosted by the switch.

Category: Call Control **Security:** SA for DLT and ENT, View for RTRV

Input Formats:

```
DLT-HOME-NXX:[TID]:<CcNpaNxx>:[CTAG];

ENT-HOME-NXX:[TID]:<CcNpaNxx>:[CTAG]:
   [PORTEDIN=<PortedIn>];

RTRV-HOME-NXX:[TID]:<CcNpaNxx>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<CcNpaNxx>:PORTEDIN=<PortedIn>"
;
```

Parameters:

CcNpaNxx Identifies the AID as a homed NXX in a specific NPA within a country. The first number in the range identifies the country code, the second identifies the NPA, and the third identifies the NXX and is optional in DLT and RTRV. A null value for the third number in the range (in DLT and RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the system deletes or retrieves all homed NXXs for the country and NPA specified by the first and second numbers in the range. If you specify a nonexistent NXX for the third number in the range, the system will return a “DENY – SROF” message.

Type: CcNpaNxx
Range: {1-99999}-{200-999}[-{200-999}]
Default value: none

PortedIn Identifies whether the homed NXX is ported in to the switch.

Type: BoolYn
Range: N = homed NXX is not ported in to the switch
Y = homed NXX is ported in to the switch
Default value: N

Input Examples:

```
DLT-HOME-NXX::01-508-480;

ENT-HOME-NXX::01-508-480;

RTRV-HOME-NXX::01-508;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "01-508-480:PORTEDIN=N"
   "01-508-804:PORTEDIN=Y"
;
```

Related Commands: none

DLT/ENT/RTRV-LRN

Commands:

DLT-LRN: Delete Location Routing Number

ENT-LRN: Enter Location Routing Number

RTRV-LRN: Retrieve Location Routing Number

Descriptions:

DLT-LRN lets the user delete a location routing number supporting the service-provider type of location number portability (LNP).

ENT-LRN lets the user establish a location routing number to support the service-provider type of location number portability (LNP). Service-provider LNP allows a phone number "homed" on one service provider's switch (typically the ILEC) to be "ported" to the switch of another service provider (a CLEC) without changing the phone number. To achieve this, a phone number ported to another service provider's switch is associated in a database with the switch to which it is ported (identified by its LRN). ENT-LRN identifies that switch either as the Lucent Compact Switch or as a switch to which the Lucent Compact Switch routes.

RTRV-LRN lets the user retrieve parameters associated with a switch identified by a location routing number.

Category: Call Control **Security:** ADMIN for DLT/ENT, View for RTRV

Input Formats:

```
DLT-LRN:[TID]:<lrn>:[CTAG];
ENT-LRN:[TID]:<lrn>:[CTAG]::<lrnType>;
RTRV-LRN:[TID]:[<lrn>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<lrn>,<lrnType>"
;
```

Parameters:

lrn Identifies the location routing number for the switch to which phone numbers are ported.

Type: string
Range: exactly 10 digits
Default value: none

lrnType Identifies the type of location routing number.

Type: enum
Range: P = Primary – identifies the location routing number as associated with the Lucent Compact Switch
S = Secondary – identifies the location routing number as associated with a switch that routes to the Lucent Compact Switch
Default value: none

Input Examples:

```
DLT-LRN::5084800000;

ENT-LRN::5084800000:::P;

RTRV-LRN::5084800000;
```

Output Example:

```
   lucent 2003-08-29 14:37:49
M  0 COMPLD
   "5084800000,P"
;
```

Related Commands: none

DLT/ENT/RTRV-NATIONAL-NPA

Commands:

DLT-NATIONAL-NPA: Delete National NPA

ENT-NATIONAL-NPA: Enter National NPA

RTRV-NATIONAL-NPA: Retrieve National NPA

Descriptions:

DLT-NATIONAL-NPA lets the user delete an NPA (Numbering Plan Area) within a country from the system.

ENT-NATIONAL-NPA lets the user add an NPA (Numbering Plan Area) within a country to the system. ENT-NATIONAL-NPA will not work unless ENT-COUNTRY has already been issued.

RTRV-NATIONAL-NPA lets the user retrieve all NPAs (Numbering Plan Areas) within a country from the system. The command also can be used to determine the existence of a specific NPA within a country.

Category: Call Control **Security:** SA for DLT and ENT, View for RTRV

Input Formats:

```
DLT-NATIONAL-NPA:[TID]:<CcNpa>:[CTAG];
ENT-NATIONAL-NPA:[TID]:<CcNpa>:[CTAG];
RTRV-NATIONAL-NPA:[TID]:<CcNpa>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<Cc>"
;
```

Parameters:

CcNpa Identifies the AID as an NPA within a country. The first number in the range identifies the country code; the second identifies the NPA and is optional in DLT and RTRV. A null value for the second number in the range (in DLT and RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the system deletes or retrieves all NPAs for the country specified by the first number in the range.

Type: NNPAAid
Range: {1-99999}[-{200-999}]
Default value: none

Input Examples:

```
DLT-NATIONAL-NPA::01-508;

ENT-NATIONAL-NPA::01-508;

RTRV-NATIONAL-NPA::01;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "01-508"
   "01-617"
   "01-978"
;
```

Related Commands: none

DLT/ENT/RTRV-RATE-CENTER

Commands:

DLT-RATE-CENTER: Delete Rate Center

ENT-RATE-CENTER: Enter Rate Center

RTRV-RATE-CENTER: Retrieve Rate Center

Descriptions:

DLT-RATE-CENTER lets the user delete a rate center specified by an NXX in an NPA.

ENT-RATE-CENTER lets the user establish a rate center in a specific NXX in an NPA. ENT-RATE-CENTER will not work unless ENT-NATIONAL-NPA has already been issued.

RTRV-RATE-CENTER lets the user retrieve all rate centers in the system that are associated with specific NXXs in NPAs in LATAs. The command also can be used to determine the existence of a specific rate center association.

Category: Call Control **Security:** SA for DLT and ENT, View for RTRV

Input Formats:

```
DLT-RATE-CENTER:[TID]:<ratecenteraid>:[CTAG];

ENT-RATE-CENTER:[TID]:<ratecenteraid>:[CTAG]::
   LATAID=<lata>,RATECENTER=<ratecenter>,
   [LATANAME=<lataname>];

RTRV-RATE-CENTER:[TID]:[<ratecenteraid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
 "<ratecenteraid>:LATAID=<lata>,
    [RATECENTER=<ratecenter>],[LATANAME=<lataname>]"
;
```

Parameters:

ratecenterAid Identifies the rate center with the homed NXX (exchange) in a specific NPA hosted by the Lucent Compact Switch. The first number in the range identifies the NPA, and the second identifies the NXX. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the system retrieves all rate centers configured in the system. A null value for the second number in the range (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the system retrieves all NXXs for the NPA specified by the first number in the range.

Type: NpaNxx
Range: {200-999}[-{200-999}]
Default value: none

lata Identifies the LATA for the associated NPA and NXX.

Type: enum
Range: {100-999, 10000-99999}
Default value: none

ratecenter Identifies the name of the rate center.

Type: string
Range: up to 31 alphanumeric characters
Default value: none

lataname Identifies the name of the LATA.

Type: string
Range: up to 20 alphanumeric characters
Default value: none

Input Examples:

```
DLT-RATE-CENTER::508-480;

ENT-RATE-CENTER::508-480:::LATAID=128,
   RATECENTER=MARLBORO,LATANAME=EMASS;

RTRV-RATE-CENTER::508-480;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "508-480:LATAID=128,RATECENTER=MARLBORO,
      LATANAME=EMASS"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-CARRIER

Commands:

DLT-CARRIER: Delete Carrier

ED-CARRIER: Edit Carrier

ENT-CARRIER: Enter Carrier

RTRV-CARRIER: Retrieve Carrier

Descriptions:

DLT-CARRIER lets the user remove a carrier code from the system.

ED-CARRIER lets the user change parameters affecting a carrier. Use ED-CARRIER to change the type of call accepted, the carrier class, whether the carrier has operator support, the carrier name, and the call type circuit codes.

ENT-CARRIER lets the user add a carrier to the system and define the type of call accepted, the carrier class, whether the carrier has operator support, the carrier name, and the call type circuit codes.

RTRV-CARRIER lets the user retrieve all the carriers in the system and their associated properties.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-CARRIER:[TID]:<CarrierCode>:[CTAG];
```

```
ED-CARRIER:[TID]:<CarrierCode>:[CTAG]::
   [CALLTYPE=<CallType>],[CLASS=<CarrierClass>],
   [OPERATOR=<Operator>],[NAME=<Name>],
   [INTERLATACODE=<InterLataCode>],
   [INTERLATAOPERATORCODE=<InterLataOpCode>],
   [TOLLFREECODE=<TollfreeCode>],
   [CASINTERLATA=<CasInterLata>],
   [CASINTERLATAOP=<CasInterLataOp>],
   [CASTOLLFREE=<CasTollFree>],
   [CASINTERNATIONAL=<CasInternational>],
   [CASINTERNATIONALOP=<CasInternationalOp>];
```

```
ENT-CARRIER:[TID]:<CarrierCode>:[CTAG]::
   [CALLTYPE=<CallType>],[CLASS=<CarrierClass>],
   [OPERATOR=<Operator>],[NAME=<Name>],
   [INTERLATACODE=<InterLataCode>],
   [INTERLATAOPERATORCODE=<InterLataOpCode>],
   [TOLLFREECODE=<TollfreeCode>],
   [CASINTERLATA=<CasInterLata>],
   [CASINTERLATAOP=<CasInterLataOp>],
   [CASTOLLFREE=<CasTollFree>],
   [CASINTERNATIONAL=<CasInternational>],
   [CASINTERNATIONALOP=<CasInternationalOp>];

RTRV-CARRIER:[TID]:[<CarrierCode>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<CarrierCode>:CALLTYPE=<CallType>,
      CLASS=<CarrierClass>,OPERATOR=<Operator>,
      [NAME=<Name>],INTERLATACODE=<InterLataCode>,
      INTERLATAOPERATORCODE=<InterLataOpCode>,
      TOLLFREECODE=<TollfreeCode>,
      CASINTERLATA=<CasInterLata>,
      CASINTERLATAOP=<CasInterLataOp>,
      CASTOLLFREE=<CasTollFree>,
      CASINTERNATIONAL=<CasInternational>,
      CASINTERNATIONALOP=<CasInternationalOp>"
;
```

Parameters:

CarrierCode Identifies the AID as a specific carrier. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all carriers configured in the system will be returned.

Type: CarrierCode
Range: {0-9999}
Default value: none

CallType Identifies the type of calls accepted.

Type: enum
Range: PRESUBSCRIBED = the carrier accepts calls from subscribers only
CASUALDIAL = the carrier provides service on a per-use basis only
BOTH = the carrier provides service both on a subscription and a per-use basis
Default value: BOTH

CarrierClass Identifies the class of carrier

Type: enum
Range: INTERLATA = the carrier only allows calls between LATAs
INTRALATA = the carrier only allows calls within a LATA
BOTH = the carrier allows calls both within one LATA and between LATAs
Default value: BOTH

Operator Identifies whether the carrier has operator support.

Type: BoolYN
Range: Y = the carrier has operator support
N = the carrier does not have operator support
Default value: Y

Name Identifies the name of the carrier.

Type: string
Range: up to 80 ASCII characters
Default value: NULL

InterLataCode Identifies the circuit code (per GR394 B.16) associated with a direct-dial (1+) or casual-dial (10-10-xxx) long distance call.

Type: integer
Range: {0,3-15}
Default value: 0

InterLataOpCode Identifies the circuit code (per GR394 B.16) associated with an operator-assisted (0+) long distance call.

Type: integer
Range: {0,3-15}
Default value: 0

TollfreeCode Identifies the circuit code (per GR394 B.16) associated with a toll-free (800, 888, 877) long distance call.

Type: integer
Range: {0,3-15}
Default value: 0

CasInterLata Identifies the circuit code (per GR394 B.16) associated with a direct-dial (1+) or casual-dial (10-10-xxx) CAS long distance call.

Type: integer
Range: {0-199}
Default value: 0

CasInterLataOp Identifies the circuit code (per GR394 B.16) associated with an operator-assisted (0+) CAS long distance call.

Type: integer
Range: {0-199}
Default value: 0

CasTollFree Identifies the circuit code (per GR394 B.16) associated with a toll-free (800, 888, 877) CAS long distance call.

Type: integer
Range: {0-199}
Default value: 0

CasInternational Identifies the circuit code (per GR394 B.16) associated with a direct-dial (1+) or casual-dial (10-10-xxx) CAS international call.

Type: integer
Range: {0-199}
Default value: 138

CasInternationalOp Identifies the circuit code (per GR394 B.16) associated with an operator-assisted (0+) CAS international call.

Type: integer
Range: {0-199}
Default value: 158

Input Examples:

```
DLT-CARRIER::1;

ED-CARRIER::1:::CALLTYPE=BOTH,CLASS=BOTH,OPERATOR=Y,
   NAME=LUCENT,INTERLATACODE=8,
   INTERLATAOPERATORCODE=9,TOLLFREECODE=10,
   CASINTERLATA=O,CASINTERLATAOP=O,CASTOLLFREE=0,
   CASINTERNATIONAL=138,CASINTERNATIONALOP=158;

ENT-CARRIER::1:::CALLTYPE=BOTH,CLASS=BOTH,OPERATOR=Y,
   NAME=LUCENT,INTERLATACODE=8,
   INTERLATAOPERATORCODE=9,TOLLFREECODE=10,
   CASINTERLATA=O,CASINTERLATAOP=O,CASTOLLFREE=0,
   CASINTERNATIONAL=138,CASINTERNATIONALOP=158;

RTRV-CARRIER::1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:CALLTYPE=BOTH,CLASS=BOTH,OPERATOR=Y,NAME=LUCENT,
      INTERLATACODE=8,INTERLATAOPERATORCODE=9,
      TOLLFREECODE=10,CASINTERLATA=O,CASINTERLATAOP=O,
      CASTOLLFREE=0,CASINTERNATIONAL=138,
      CASINTERNATIONALOP=158"
;
```

Related Commands: none

ED/RTRV-INSYS

Commands:

ED-INSYS: Edit IN System

RTRV-INSYS: Retrieve IN System

Descriptions:

ED-INSYS lets the user change the frequency on which the switch sends the SST (Subsystem Status Test) message for prohibited SSNs.

RTRV-INSYS lets the user retrieve the value of the subsystem status test message timer.

Category: Call Control **Security:** SA for ED, View for RTRV

Input Formats:

```
ED-INSYS:[TID]:[<src>]:[CTAG]::DEFSSTTMR=<defSstTmr>;
RTRV-INSYS:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:DEFSSTTMR=<defSstTmr>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

defSstTmr Identifies the value (in seconds) for the subsystem status test message timer. The factory default is “60”.

Type: integer
Range: {1-32767}
Default value: not applicable

Input Examples:

```
ED-INSYS:::::DEFSSTTMR=60;

RTRV-INSYS;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:DEFSSTTMR=60"
;
```

Related Commands: none

NOTES

DLT/ENT/RTRV-ANNC-MAP

Commands:

DLT-ANNC-MAP: Delete Announcement Map

ENT-ANNC-MAP: Enter Announcement Map

RTRV-ANNC-MAP: Retrieve Announcement Map

Descriptions:

DLT-ANNC-MAP lets the user delete the mapping of an internal identification for an audio announcement to an announcement identification specified by an SCP.

ENT-ANNC-MAP lets the user map an internal identification for an audio announcement to an announcement identification specified by an SCP.

RTRV-ANNC-MAP lets the user retrieve the internal audio announcement that is mapped to an announcement identification specified by an SCP.

Category: Call Control **Security:** NSA for DLT and ENT, View for RTRV

Input Formats:

```
DLT-ANNC-MAP:[TID]:<scpAnncMapAid>:[CTAG];
ENT-ANNC-MAP:[TID]:<scpAnncMapAid>:[CTAG]::
   ANNCID=<anncId>;
RTRV-ANNC-MAP:[TID]:[<scpAnncMapAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<scpAnncMapAid>:ANNCID=<anncId>"
;
```

Parameters:

scpAnncMapAid Identifies the AID as an announcement specified by an SCP. The first part of the AID is a string of up to 20 characters that labels the announcement mapping; the second part is an integer identifying the announcement specified by the SCP. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all announcement mappings configured in the system will be returned. A null value for the second part of the AID (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all announcement mappings with the specified announcement mapping label will be returned.

Type: ScpAnncMap
Range: <ANNCMAPLBL>-{1-65535}
Default value: none

anncId Identifies the internal designator for an audio announcement that is mapped to the announcement identification specified by the SCP. Identifiers 1-2999 are reserved for already-configured standard announcements, identifiers 3000-32766 are for user-supplied custom announcements, and identifiers 32767-65535 are reserved for future external announcements.

Type: integer
Range: {1-65535}
Default value: none

Input Examples:

```
DLT-ANNC-MAP::SCP1-1;

ENT-ANNC-MAP::SCP1-1:::ANNCID=32766;

RTRV-ANNC-MAP::SCP1-1;
```

Output Example:

```
   lucent 2005-05-14 14:37:49
M  0 COMPLD
   "SCP-1:ANNCID=32766"
;
```

Related Commands:

```
DLT/ED/ENT/RTRV-ANNC-EXT
DLT/ED/ENT/RTRV-AUDIO-ANNC
```

DLT/ED/ENT/RTRV-DIALPLAN

Commands:

DLT-DIALPLAN: Delete Dial Plan

ED-DIALPLAN: Edit Dial Plan

ENT-DIALPLAN: Enter Dial Plan

RTRV-DIALPLAN: Retrieve Dial Plan

Descriptions:

DLT-DIALPLAN lets the user delete a custom dial plan.

ED-DIALPLAN lets the user change a custom dial plan. Use this command to change the custom dial plan's name and nature of address indicator, the digits to match, the minimum and maximum lengths of the specified digit string, the number of digits to remove, the digits to prefix, and the new nature of address indicator applicable to the specified digit string.

ENT-DIALPLAN lets the user establish a custom dial plan. Use this command to define the custom dial plan's name and nature of address indicator, the digits to match, the minimum and maximum lengths of the specified digit string, the number of digits to remove, the digits to prefix, and the new nature of address indicator applicable to the specified digit string.

RTRV-DIALPLAN lets the user retrieve the attributes of a custom dial plan.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-DIALPLAN:[TID]:<dialPlanAid>:[CTAG];

ED-DIALPLAN:[TID]:<dialPlanAid>:[CTAG]::
   [MAXLEN=<maxLen>],[STRIPDGTS=<stripDgts>],
   [PREFIXDGTS=<prefixDgts>],[NEWNAI=<newNai>],
   [OVERFLOWNANP=<overFlowNANP>];

ENT-DIALPLAN:[TID]:<dialPlanAid>:[CTAG]::
   [MAXLEN=<maxLen>],[STRIPDGTS=<stripDgts>],
   [PREFIXDGTS=<prefixDgts>],[NEWNAI=<newNai>],
   [OVERFLOWNANP=<overFlowNANP>];

RTRV-DIALPLAN:[TID]:[<dialPlanAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<dialPlanAid>:MAXLEN=<maxLen>,
      STRIPDGTS=<stripDgts>,PREFIXDGTS=<prefixDgts>,
      NEWNAI=<newNai>,OVERFLOWNANP=<overFlowNANP>"
;
```

Parameters:

dialPlanAid Identifies the AID as a custom dial plan. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all custom dial plans configured in the system will be returned.

Type: DialPlanAid

Range: <dialPlanName>[-<nai>[-<digits >[-<minDgts>]]], where:

dialPlanName identifies the name of the custom dial plan with a string of up to 21 alphanumeric characters;

nai identifies the nature of address indicator applicable to the specified custom dial plan, with values of:

- ABBREVPVT = abbreviated number in private dial plan
- DEFAULT = any nature of address indicator
- INTNATNUM = international number
- INTNATOPREQ = international number, operator request
- NATNUM = national significant number
- NATOPREQ = national (long-distance) operator request
- NONUMCUTTHRU = no number provided, cut through to carrier
- NONUMOPREQ = no number provided, operator request
- SUBOPREQ = subscriber (local) operator request
- SUBSNUM = subscriber number
- UNKNOWN = unknown (default value);

digits identifies the leading digits of the number to be matched with a string of 1-31 digits (default = “DEFAULT”);

minDgts identifies the minimum length of the specified digit string as an integer from four to six with a default of four.

Default value: none

maxLen Identifies the maximum length of a digit string for the custom dial plan to apply. The value of *maxlen* must be greater than the value of *minLen* in the AID.

Type: integer
Range: {4-6}
Default value: 6

stripDgts Identifies the number of digits to remove from the calls to which the custom dial plan applies. At present, the range for this parameter is restricted to "0".

Type: integer
Range: {0}
Default value: 0

prefixDgts Identifies the digits prefixed to the calls to which the custom dial plan applies. At present, the range for this parameter is restricted to "NULL".

Type: string
Range: NULL
Default value: NULL

newNai Identifies a new nature of address indicator replacing the nature of address indicator applicable to the digit string specified in the AID.

Type: enum
Range: ABBREVPVT = abbreviated number in private dial plan
DEFAULT = any nature of address indicator
INTNATNUM = international number
INTNATOPREQ =
NATNUM = national significant number
NATOPREQ = national (long-distance) operator request
NONUMCUTTHRU = no number provided, cut through to carrier
NONUMOPREQ = no number provided, operator request
SUBOPREQ = subscriber (local) operator request
SUBSNUM = subscriber number
UNKNOWN = unknown (default value);
Default value: the value of *nai* in the AID

overFlowNANP Identifies whether number analysis, based on the North American Numbering Plan, is done after prefixing.

Type: BoolYN
Range: N = In-Service
Y = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: Y

Input Examples:

```
DLT-DIALPLAN::CUSTOM1-unknown-80-4;

ED-DIALPLAN::CUSTOM1-unknown-80-4:::MAXLEN=6,
   STRIPDIGITS=2,PREFIXDIGITS=NULL,NEWNAI=NATNUM;

ENT-DIALPLAN::CUSTOM1-unknown-80-4:::MAXLEN=6,
   STRIPDIGITS=2,PREFIXDIGITS=NULL,NEWNAI=NATNUM;

RTRV-DIALPLAN::CUSTOM1-unknown-80-4;
```

Output Example:

```
   lucent 2005-05-14 14:37:49
M  0 COMPLD
   "CUSTOM1-unknown-80-4:MAXLEN=9,STRIPDIGITS=3,
      PREFIXDIGITS=NULL,NEWNAI=NATNUM"
;
```

Related Commands:

DLT/ENT/RTRV-DIALPLAN-TRIGGER

DLT/ENT/RTRV-DIALPLAN-TRIGGER

Commands:

DLT-DIALPLAN-TRIGGER: Delete Dial Plan Trigger

ENT-DIALPLAN-TRIGGER: Enter Dial Plan Trigger

RTRV-DIALPLAN-TRIGGER: Retrieve Dial Plan Trigger

Descriptions:

DLT-DIALPLAN-TRIGGER lets the user delete the association of a custom dial plan with an AIN trigger list.

ENT-DIALPLAN-TRIGGER lets the user establish the association of a custom dial plan with an AIN trigger list. ENT-DIALPLAN-TRIGGER is dependent on ENT-DIALPLAN and ENT-LIST-AINTRIGGER; that is, ENT-DIALPLAN-TRIGGER will not work unless ENT-DIALPLAN and ENT-LIST-AINTRIGGER have already been issued.

RTRV-DIALPLAN-TRIGGER lets the user retrieve the association of a custom dial plan with an AIN trigger list.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-DIALPLAN-TRIGGER:[TID]:<dialPlanTrigAid>:[CTAG];

ENT-DIALPLAN-TRIGGER:[TID]:<dialPlanTrigAid>:[CTAG];

RTRV-DIALPLAN-TRIGGER:[TID]:[<dialPlanTrigAid>]:
   [CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<dialPlanTrigAid>"
;
```

Parameters:

dialPlanTrigAid Identifies the AID as the association of a custom dial plan with an AIN trigger list. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all associations configured in the system between custom dial plans and AIN trigger lists will be returned. A null value for the second part of the AID (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all AIN trigger list associations with the specified custom dial plan will be returned.

Type: DialPlanTrigAid
Range: <dialPlanName>[-<ainTrigList>], where:

dialPlanName identifies the name of the custom dial plan with a string of up to 21 alphanumeric characters;

ainTrigList identifies the AIN Trigger List applicable to the specified custom dial plan with a string of up to 20 characters. “CUSTOM_DIALPLAN” is the only trigger type allowed for entries in the specified AIN Trigger List.

Default value: none

Input Examples:

```
DLT-DIALPLAN-TRIGGER::CUSTOM1-TRIGLIST1;
ENT-DIALPLAN-TRIGGER::CUSTOM1-TRIGLIST1;
RTRV-DIALPLAN-TRIGGER::CUSTOM1;
```

Output Example:

```
   lucent 2005-05-14 14:37:49
M  0 COMPLD
   "CUSTOM1-TRIGLIST1"
   "CUSTOM1-TRIGLIST2"
   "CUSTOM1-TRIGLIST3"
;
```

Related Commands:

```
DLT/ED/ENT/RTRV-DIALPLAN
DLT/ED/ENT/RTRV-LIST-AINTRIGGER
```

DLT/ED/ENT/RTRV-LIST-AINTRIGGER

Commands:

DLT-LIST-AINTRIGGER: Delete List AIN Trigger

ED-LIST-AINTRIGGER: Edit List AIN Trigger

ENT-LIST-AINTRIGGER: Enter List AIN Trigger

RTRV-LIST-AINTRIGGER: Retrieve List AIN Trigger

Descriptions:

DLT-LIST-AINTRIGGER lets the user remove a trigger from a list of AIN triggers. Removing all triggers from a list deletes the list name from the database.

ED-LIST-AINTRIGGER lets the user change a list of AIN triggers. Use this command to change the trigger type and category, the string of digits that activates the trigger, the service logic host route to an SCP, and whether the trigger is active.

ENT-LIST-AINTRIGGER lets the user establish a list of AIN triggers. Use this command to define the AIN trigger(s) on the list, the trigger type and category, the string of digits that activates the trigger, the service logic host route to an SCP, and whether the trigger is active. ENT-LIST-AINTRIGGER is dependent on ENT-SLHR-SCP; that is, ENT-LIST-AINTRIGGER will not work unless ENT-SLHR-SCP has already been issued.

RTRV-LIST-AINTRIGGER lets the user retrieve a list of AIN triggers and the attributes for the triggers in the list.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-LIST-AINTRIGGER:[TID]:<triggerAid>:[CTAG];

ED-LIST-AINTRIGGER:[TID]:<triggerAid>:[CTAG]::
   [TRIGESCLIST=<trigEscList>],[SLHRID=<slhrId>]:
   [<pst>];

ENT-LIST-AINTRIGGER:[TID]:<triggerAid>:[CTAG]::
   TRIGTYPE=<trigType>,[CATEGORY=<category>],
   [TRIGESCLIST=<trigEscList>],
   [SCREENDGTS=<screenDgts>],[SLHRID=<slhrId>]:
   [<pst>];

RTRV-LIST-AINTRIGGER:[TID]:[<triggerAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<triggerAid>:TRIGTYPE=<trigType>,
      CATEGORY=<category>,[TRIGESCLIST=<trigEscList>],
      SCREENDGTS=<screenDgts>,SLHRID=<slhrId>:<pst>"
;
```

Parameters:

triggerAid Identifies the AID as a list of AIN triggers. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all lists of AIN triggers configured in the system will be returned. A null value for the second part of the AID (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all AIN triggers associated with the specified list of AIN triggers will be returned.

Type: TriggerAid
Range: <ainTrigListName>[-<index>], where:

ainTrigListName identifies the name of the list of AIN triggers with a string of up to 21 alphanumeric characters;

index identifies the particular trigger associated with the list as an integer with range 1-255. Each trigger has a unique combination of *trigType* and *screenDgts*.

Default value: none

trigType Identifies the triggering event; that is, an SSP User Resource-related call processing event that is of potential interest to an AIN service.

Type: enum

Range: CUSTOM_DIALPLAN = trigger encountered on receipt of a digit string that matches the criteria for a custom dial plan

INTERNATIONAL = trigger encountered on receipt of a digit string that matches the criteria for an international call. Note that there can only be one INTERNATIONAL trigger configured in the system.

MOBILE_TERMINATION = trigger encountered when the called party number is either an ANSI IS41 or a GSM mobile directory number. To select this value, first use ED-GMSC-ANSISYS/GSMSYS to set the primary state of the switch configured as a GMSC to "IS".

MOBILE_TERMINATION_ANSI = trigger encountered when the called party number is an ANSI IS41 mobile directory number. To select this value, first use ED-GMSC-ANSISYS to set the primary state of the switch configured as an ANSI IS41 GMSC to "IS".

MOBILE_TERMINATION_GSM = trigger encountered when the called party number is a GSM mobile directory number. To select this value, first use ED-GMSC-GSMSYS to set the primary state of the switch configured as a GSM GMSC to "IS".

ONE_PLUS_PREFIX = trigger encountered on receipt of one of the following digit strings:

- 1+NPA-NXX-XXXX
- 101XXXX 1+ NPA-NXX-XXXX

OPERATOR_SERVICES = trigger encountered on receipt of one of the following digit strings (a "-" means "no following digits", a "+" means "has following digits"):

- 0-
- 00-
- 101xxxx 0-
- 101xxxx 00-
- 0+
- 01+
- 101xxxx 0+
- 101xxxx 01+

SPECIFIC_DIGIT_STRING = trigger encountered on receipt of an appropriate sequence of dialed digits (other than escape codes) in the *CalledPartyID* of an SCP/Adjunct Response message, or in the IAM Called Party Number or (Ported Number) GAP

Default value: none

category Identifies whether the triggering event specified by *trigType* applies to office-based or to subscribed-based traffic. Office-based triggers are global; they apply to all traffic through the switch. Subscribed-based triggers apply to a specific subscriber line.

Type: enum
Range: OFFICE
SUBSCRIBED
Default value: SUBSCRIBED

trigEscList Identifies the escape (exception) list, previously defined by ENT-LIST-TRIGESC, for the specified trigger.

Type: string
Range: up to 10 characters
Default value: NULL

screenDgts Identifies the triggering digits, based on the triggering event.

Type: string
Range: one to 20 digits, for the following triggers:
- CUSTOM_DIALPLAN: one to 20 digits
- INTERNATIONAL: one to 15 digits
- ONE_PLUS_PREFIX: 11 or 18 digits
- OPERATOR_SERVICES: one to 20 digits
- SPECIFIC_DIGIT_STRING: three to 10 digits

Default value: NULL

slhrId Identifies the service logic host route to an SCP for the AIN trigger.

Type: enum
Range: {0-31}
Default value: none

pst Identifies the primary state of the AIN trigger; that is, whether the trigger is active.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: IS

Input Examples:

```
DLT-LIST-AINTRIGGER::TRIGLIST1-1;

ED-LIST-AINTRIGGER::TRIGLIST1-1:::TRIGESCLIST=NULL,
   SLHR=1:IS;

ENT-LIST-AINTRIGGER::TRIGLIST1-1:::
   TRIGTYPE=SPECIFIC_DIGIT_STRING,CATEGORY=SUBSCRIBER,
   TRIGESCLIST=NULL,SCREENDGTS=508,SLHR=1:IS;

RTRV-LIST-AINTRIGGER::TRIGLIST1-1;
```

Output Example:

```
   lucent 2005-05-14 14:37:49
M  0 COMPLD
   "TRIGLIST1-1:TRIGTYPE=SPECIFIC_DIGIT_STRING,
      CATEGORY=SUBSCRIBER,TRIGESCLIST=NULL,
      SCREENDGTS=508,SLHR=1:IS"
;
```

Related Commands:

```
DLT/ENT/RTRV-DIALPLAN-TRIGGER
DLT/ED/ENT/RTRV-LIST-TRIGESC
```

DLT/ED/ENT/RTRV-LIST-TRIGESC

Commands:

DLT-LIST-TRIGESC: Delete List Trigger Escape

ED-LIST-TRIGESC: Edit List Trigger Escape

ENT-LIST-TRIGESC: Enter List Trigger Escape

RTRV-LIST-TRIGESC: Retrieve List Trigger Escape

Descriptions:

DLT-LIST-TRIGESC lets the user remove a trigger escape list from the database.

ED-LIST-TRIGESC lets the user change the ending number for the range of DNs associated with a specified trigger escape list.

ENT-LIST-TRIGESC lets the user establish an escape (exception) list for a particular trigger type. Use this command to name the trigger escape list and associate it with a range of directory numbers.

RTRV-LIST-TRIGESC lets the user retrieve the range of DNs associated with a specified trigger escape list.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-LIST-TRIGESC:[TID]:<trigEscListAID>:[CTAG];
ED-LIST-TRIGESC:[TID]:<trigEscListAID>:[CTAG]::
   [ENDRANGE=<endRange>];
ENT-LIST-TRIGESC:[TID]:<trigEscListAID>:[CTAG]::
   [ENDRANGE=<endRange>];
RTRV-LIST-TRIGESC:[TID]:[<trigEscListAID>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<trigEscListAID>:ENDRANGE=<endRange>"
;
```

Parameters:

trigEscListAID Identifies the AID as an escape (exception) list for a particular trigger type. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all trigger type escape lists configured in the system will be returned. A null value for the second part of the AID (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the range of directory numbers associated with the specified escape list will be returned.

Type: TrigEscListAID
Range: <trigEscList>[-<startRange>], where:

trigEscList identifies the name of the trigger type escape list with a string of up to 10 alphanumeric characters;

startRange identifies the first number in the range of DNs associated with the escape list with a string of exactly 10 digits.

Default value: none

endRange Identifies the last number in the range of DNs associated with the escape list with just the last four digits. The value must be greater than the value of *startRange*.

Type: string
Range: {0000-9999}
Default value: the value for *startRange*

Input Examples:

```
DLT-LIST-TRIGESC::ESCLIST1-5088041000;
ED-LIST-TRIGESC::ESCLIST1-5088041000:::ENDRANGE=5000;
ENT-LIST-TRIGESC::ESCLIST1-5088041000:::ENDRANGE=5000;
RTRV-LIST-TRIGESC::ESCLIST1-5088041000;
```

Output Example:

```
   lucent 2005-05-14 14:37:49
M  0 COMPLD
   "ESCLIST1-5088041000:ENDRANGE=5000"
;
```

Related Commands:

```
DLT/ED/ENT/RTRV-LIST-AINTRIGGER
```

DLT/ENT/RTRV-SCCP-ROUTE

Commands:

DLT-SCCP-ROUTE: Delete SCCP Route

ENT-SCCP-ROUTE: Enter SCCP Route

RTRV-SCCP-ROUTE: Retrieve SCCP Route

Descriptions:

DLT-SCCP-ROUTE lets the user delete an SCCP (Signaling Connection Control Part) route to a remote point code.

ENT-SCCP-ROUTE lets the user establish an SCCP (Signaling Connection Control Part) route to a remote point code. ENT-SCCP-ROUTE is dependent on ENT-PC; that is, ENT-SCCP-ROUTE will not work unless ENT-PC has already been issued.

RTRV-SCCP-ROUTE lets the user retrieve the remote point code(s) to which an SCCP (Signaling Connection Control Part) route exists.

Category: Call Control **Security:** SA for DLT and ENT, View for RTRV

Input Formats:

```
DLT-SCCP-ROUTE:[TID]:[<src>]:[CTAG]::<Pc>;
ENT-SCCP-ROUTE:[TID]:[<src>]:[CTAG]::<Pc>;
RTRV-SCCP-ROUTE:[TID]:[<src>]:[CTAG]::[<Pc>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:<Pc>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

Pc Identifies the remote point code for the route. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all point codes configured in the system will be returned.

Type: string
Range: {0-255}-{0-255}-{0-255}
Default value: none

Input Examples:

```
DLT-SCCP-ROUTE:::::35-222-123;

ENT-SCCP-ROUTE:::::35-222-123;

RTRV-SCCP-ROUTE;
```

Output Example:

```
   lucent 2005-05-14 14:37:49
M  0 COMPLD
   "COM:35-210-123"
   "COM:35-223-181"
   "COM:42-156-93"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-SCCP-SSN

Commands:

DLT-SCCP-SSN: Delete SCCP SSN

ED-SCCP-SSN: Edit SCCP SSN

ENT-SCCP-SSN: Enter SCCP SSN

RTRV-SCCP-SSN: Retrieve SCCP SSN

Descriptions:

DLT-SCCP-SSN lets the user delete an SCCP (Signaling Connection Control Part) route to an SSN (sub-system number) on a remote point code.

ED-SCCP-SSN lets the user change the parameters affecting an SCCP (Signaling Connection Control Part) route to an SSN (sub-system number) on a remote point code.

ENT-SCCP-SSN lets the user establish an SCCP (Signaling Connection Control Part) route to an SSN (sub-system number) on a remote point code. ENT-SCCP-SSN is dependent on ENT-PC and ENT-SCCP-ROUTE; that is, ENT-SCCP-SSN will not work unless ENT-PC and ENT-SCCP-ROUTE have already been issued.

RTRV-SCCP-SSN lets the user retrieve the remote point code(s) to which an SCCP (Signaling Connection Control Part) route to an SSN (sub-system number) exists.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-SCCP-SSN:[TID]:<pcSsn>:[CTAG];

ED-SCCP-SSN:[TID]:<pcSsn>:[CTAG]::
   [<sccpSsnStartup>],[<bpc>];

ENT-SCCP-SSN:[TID]:<pcSsn>:[CTAG]::
   [<sccpSsnStartup>],[<bpc>];

RTRV-SCCP-SSN:[TID]:[<pcSsn>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<pcSsn>:<startupStatus>,<bpc>"
;
```

Parameters:

pcSsn Identifies the AID as a combination of the remote point code that receives the query and the subsystem number of the providing service. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all point codes configured in the system will be returned.

Type: SccpSsnAid
Range: {0-255}-{0-255}-{0-255}-{1-255}
Default value: none

sccpSsnStartup Identifies the startup state of the route to the SSN.

Type: enum
Range: OFFLINE
ONLINE
Default value: ONLINE

bpc Identifies the backup point code for the SSN application.

Type: enum
Range: {0-255}-{0-255}-{0-255}
Default value: 255-255-255

Input Examples:

```
DLT-SCCP-SSN::35-222-123-18;
ED-SCCP-SSN::35-222-123-18:::ONLINE;
ENT-SCCP-SSN::35-222-123-18:::ONLINE,255-255-255;
RTRV-SCCP-SSN;
```

Output Example:

```
   lucent 2005-05-14 14:37:49
M  0 COMPLD
   "35-222-123-18:ONLINE,255-255-255"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-SLHR-SCP

Commands:

DLT-SLHR-SCP: Delete SLHR SCP

ED-SLHR-SCP: Edit SLHR SCP

ENT-SLHR-SCP: Enter SLHR SCP

RTRV-SLHR-SCP: Retrieve SLHR SCP

Descriptions:

DLT-SLHR-SCP lets the user delete a service logic host route to a Service Control Point.

ED-SLHR-SCP lets the user change the attributes of a service logic host route to a Service Control Point.

ENT-SLHR-SCP lets the user establish a service logic host route to a Service Control Point. ENT-SLHR-SCP is dependent on ENT-SCCP-ROUTE and (when the value of *routeType* is "RTE_SSN") ENT-SCCP-SSN; that is ENT-SLHR-SCP will not work unless ENT-SCCP-ROUTE and ENT-SCCP-SSN have already been issued.

RTRV-SLHR-SCP lets the user retrieve the attributes of a service logic host route to a Service Control Point.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-SLHR-SCP:[TID]:<slhrId>:[CTAG];
```

```
ED-SLHR-SCP:[TID]:<slhrId>:[CTAG]::[DESC=<descr>],
   [ROUTETYPE=<routeType>],[DPC=<dpc>],
   [SVCREQSSN=<svcReqSsn>],[SVCPROVSSN=<svcProvSsn>],
   [GTFORMATIND=<gtFormatInd>],
   [GTTRANSTYPE=<gtTransType>],[TMOUT=<tmout>],
   [BPC=<bpc>],[ANNCMAP=<anncMap>],
   [ORIGNOANSTMR=<origNoAnsTmr>],[SCPTYPE=<scpType>];
```

```
ENT-SLHR-SCP:[TID]:<slhrId>:[CTAG]::DESC=<descr>,
   ROUTETYPE=<routeType>,DPC=<dpc>,
   SVCREQSSN=<svcReqSsn>,[SVCPROVSSN=<svcProvSsn>],
   [GTFORMATIND=<gtFormatInd>],
   [GTTRANSTYPE=<gtTransType>],[TMOUT=<tmout>],
   [BPC=<bpc>],[ANNCMAP=<anncMap>],
   [ORIGNOANSTMR=<origNoAnsTmr>],[SCPTYPE=<scpType>];

RTRV-SLHR-SCP:[TID]:[<slhrId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<slhrId>:DESC=<descr>,ROUTETYPE=<routeType>,
      DPC=<dpc>,SVCREQSSN=<svcReqSsn>,
      SVCPROVSSN=<svcProvSsn>,
      GTFORMATIND=<gtFormatInd>,
      GTTRANSTYPE=<gtTransType>,TMOUT=<tmout>,
      BPC=<bpc>,ANNCMAP=<anncMap>,
      ORIGNOANSTMR=<origNoAnsTmr>,SCPTYPE=<scpType>"

;
```

Parameters:

slhrId Identifies the AID as a service logic host route to a Service Control Point. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all service logic host routes configured in the system will be returned.

Type: SlhrId
Range: {0-31}
Default value: none

descr Identifies the description of the AIN service.

Type: string
Range: up to 50 ASCII characters
Default value: none

routeType Identifies the type of routing used for services.

Type: enum
Range: RTE_GT = routing to an SCP via an STP by using global title translation
RTE_SSN = routing directly to an SCP using a point code and an SSN (Sub-Service Number)
Default value: none

dpc Identifies the point code that processes the TCAP query to the SCP that provides the AIN service. The point code represents the SCP that provides the AIN service when routing the request by using an SSN. The point code represents the STP that routes the query to the appropriate SCP when routing the request by using global title translation.

Type: string
Range: {0-255}-{0-255}-{0-255}
Default value: none

svcReqSsn Identifies the SSN for the service on the switch. It is usually the same as the providing SSN.

Type: integer
Range: {1-255}
Default value: none

svcProvSsn Identifies the SSN for the service on the SCP. It is usually the same as the requesting SSN. The value of *svcProvSsn* cannot be "0" when the value of *routeType* is "RTE_SSN".

Type: integer
Range: {0-255}
Default value: the value of *svcReqSsn* (when the value of *routeType* is "RTE_SSN")
0 (when the value of *routeType* is "RTE_GT")

gtFormatInd Identifies the format of the global title and is mandatory (but cannot be "0") when the value of *routeType* is "RTE_GT". A value of "0" indicates no global title used (Use direct addressing.). A value of "1" indicates that global title includes translation type, numbering plan and encoding scheme. A value of "2" indicates that global title includes translation type only.

Type: integer
Range: {0-2}
Default value: 0

gtTransType Identifies the translation type of the global title. This parameter is mandatory when the value of *routeType* is "RTE_GT" (but cannot be "0").

Type: integer
Range: {0-255}
Default value: 0

tmout Identifies the time (in seconds) before LNP or TOLLFREE query expiry.

Type: integer
Range: {1-10}
Default value: 3

bpc Identifies the backup point code that processes the TCAP query to the SCP that provides the IN service when the point code represented by *dpc* is unavailable.

Type: string
Range: {0-255}-{0-255}-{0-255}
Default value: NULL

anncMap Identifies an SCP-specified announcement applicable to the AIN service.

Type: string
Range: up to 20 characters
Default value: NULL

origNoAnsTmr Identifies the time (in seconds) before the switch reports to the SCP that the called party has not answered.

Type: integer
Range: {1-120}
Default value: 18

scpType Identifies the type of service control point.

Type: enum
Range: AIN = Advanced Intelligent Network – parameters encoded per specification with no special handling
DMS = Data Management System – parameters encoded and extension parameters handled by DMS SCP Application profile
Default value: AIN

Input Examples:

```
DLT-SLHR-SCP::1;

ED-SLHR-SCP::1:::DESC=CFV_SERVICE,ROUTETYPE=RTE_SSN,
   DPC=3-4-5,SVCREQSSN=1,SVCPROVSSN=1,GTFORMATIND=0,
   GTTRANSTYPE=0,TMOUT=3,BPC=NULL,ANNCMAP=NULL,
   ORIGNOANSTMR=18,SCPTYPE=AIN;

ENT-SLHR-SCP::1:::DESC=CFV_SERVICE,ROUTETYPE=RTE_SSN,
   DPC=3-4-5,SVCREQSSN=1,SVCPROVSSN=1,GTFORMATIND=0,
   GTTRANSTYPE=0,TMOUT=3,BPC=NULL,ANNCMAP=NULL,
   ORIGNOANSTMR=18,SCPTYPE=AIN;

RTRV-SLHR-SCP::1;
```

Output Example:

```
   lucent 2005-05-14 14:37:49
M  0 COMPLD
   "1:DESC=CFV_SERVICE,ROUTETYPE=RTE_SSN,DPC=3-4-5,
      SVCREQSSN=1,SVCPROVSSN=1,GTFORMATIND=0,
      GTTRANSTYPE=0,TMOUT=3,BPC=NULL,ANNCMAP=NULL,
      ORIGNOANSTMR=18,SCPTYPE=AIN;

;
```

Related Commands: none

DLT/ED/ENT/RTRV-LCC

Commands:

DLT-LCC: Delete LCC

ED-LCC: Edit LCC

ENT-LCC: Enter LCC

RTRV-LCC: Retrieve LCC

Descriptions:

DLT-LCC lets the user delete a line class code.

ED-LCC lets the user change the attributes of a line class code, including the charging treatment for origination, the flat rate serving area, the major line class, the message rate area, and the terminating charge treatment.

ENT-LCC lets the user establish a line class code.

RTRV-LCC lets the user retrieve the attributes of a line class code, including the charging treatment for origination, the flat rate serving area, the major line class, the message rate area, and the terminating charge treatment for a line class code.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-LCC:[TID]:<lccId>:[CTAG];

ED-LCC:[TID]:<lccId>:[CTAG]::[CHT=<cht>],[FRA=<fra>],
   [MC=<mc>],[MRA=<mra>],[TCHT=<thct>];

ENT-LCC:[TID]:<lccId>:[CTAG]::[CHT=<cht>],[FRA=<fra>],
   [MC=<mc>],[MRA=<mra>],[TCHT=<thct>];

RTRV-LCC:[TID]:[<lccId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<lccId>:CHT=<cht>,FRA=<fra>,MC=<mc>,MRA=<mra>,
      TCHT=<tcht>"
;
```

Parameters:

lccId Identifies the AID as a line class code. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all line class codes configured in the system will be returned.

Type: string
Range: 3 or 4 characters
Default value: none

cht Identifies the Charging Treatment for origination.

Type: enum
Range: DORG = Denied Organization
FR = Flat Rate
MR = Message Rate: Used if a message-rate call is charged for the same number of message units regardless of the elapsed time and destination code
MRD = Message Rate, Detailed: Used if the call is charged for the distance between the calling and called numbers, but not for the elapsed time of the call
MRT = Message Rate, Timed: Used if calls to any destination within the customer's message-rate local calling area are to receive the same charge treatment but be charged for the elapsed time
MRTD = Message Rate, Timed/Detailed: Used if a message-rate call is charged for the elapsed time of the call and the distance between the calling and called numbers.
MRTD_NO_MBI = Message Rate, Timed/Detailed, no MBI (Message Billing Index): Used if the call is charged for the distance between the calling and called numbers and the elapsed time of the call
NOREC = No Record
OWFBD = OUTWATS Full Business Day (currently unsupported)
OWMT = OUTWATS Measured Time (currently unsupported)
Default value: FR

fra Identifies the Flat Rate Area; that is, a flat rate serving area (local calling area or wider area) associated with a specific tariff or tariffs.

Type: integer
Range: {1-1024}
Default value: 1

mc Identifies the major line class.

Type: enum
Range: 1P = Individual Line
DID = Direct Inward Dialed
PBX = PBX Line
Default value: PBX

mra Identifies the Message Rate Area; that is, the local calling (or wider) area associated with a specific tariff or tariffs.

Type: integer
Range: {1-1024}
Default value: 1

tcht Identifies the Terminating Charge Treatment.

Type: enum
Range: FLS = Free terminating Line Service
NONE = No termination charge treatment
Default value: NONE

Input Examples:

```
DLT-LCC::123;
ED-LCC::123:::CHT=FR,FRA=1,MC=PBX,MRA=1,TCHT=NONE;
ENT-LCC::123;
RTRV-LCC::123;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "123:CHT=FR,FRA=1,MC=PBX,MRA=1,TCHT=NONE"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-LIST-AUTHCODE

Commands:

DLT-LIST-AUTHCODE: Delete List Authorization Code

ED-LIST-AUTHCODE: Edit List Authorization Code

ENT-LIST-AUTHCODE: Enter List Authorization Code

RTRV-LIST-AUTHCODE: Retrieve List Authorization Code

Descriptions:

DLT-LIST-AUTHCODE lets the user delete an authorization list containing either an authorization code, a personal identification number (PIN) code, or an authorization code with an associated PIN code.

ED-LIST-AUTHCODE lets the user change the authorization code, the personal identification number (PIN) code, or the authorization code with associated PIN code in an authorization list. Authorization lists have unique names, are limited to 10000 entries, and contain only a single type of code (authorization, PIN, or authorization with associated PIN).

ENT-LIST-AUTHCODE lets the user establish an indexed list containing an authorization code, a personal identification number (PIN) code, or an authorization code with an associated PIN code. Authorization lists have unique names, are limited to 100000 entries, and contain only a single type of code (authorization, PIN, or authorization with associated PIN).

RTRV-LIST-AUTHCODE lets the user retrieve an indexed list containing either an authorization code, a personal identification number (PIN) code, or an authorization code with an associated PIN code.

Category: Facility **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-LIST-AUTHCODE:[TID]:<idindex>:[CTAG];

ED-LIST-AUTHCODE:[TID]:<idindex>:[CTAG]::
   [AUTHCODE=<authcode>],[PINCODE=<pincode>];

ENT-LIST-AUTHCODE:[TID]:<idindex>:[CTAG]::
   [AUTHCODE=<authcode>],[PINCODE=<pincode>];

RTRV-LIST-AUTHCODE:[TID]:[<idindex>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<idindex>:[AUTHCODE=<authcode>],
      [PINCODE=<pincode>]"
;
```

Parameters:

idindex Identifies the AID as either an authorization code, a PIN code, or an authorization code with an associated PIN code in an authorization list. The first part of the AID is a string identifying the list name; the second part is an integer representing the specific code in the list. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for all authorization lists in the system will be returned. A null value for the second part of the AID (in RTRV) is equivalent to "ALL"; that is, by leaving the INDEX field blank, all codes assigned to the specified authorization list will be returned.

Type: ListCodeAid
Range: <LISTID>-{INDEX}, where
LISTID = up to 20 characters, and
INDEX = {1-10000}
Default value: none

authcode Identifies the specific authorization code associated with INDEX in *listCodeId* when *listCodeId* represents either a list of authorization codes or a list of authorization codes with associated PIN codes.

Type: string
Range: up to 16 digits (including “*”, but not as the first digit)
Default value: NULL

pincode Identifies the specific PIN code associated with INDEX in *listCodeId* when *listCodeId* represents either a list of PIN codes or a list of authorization codes with associated PIN codes.

Type: string
Range: four to eight digits (including “#” and “*”)
Default value: NULL

Input Examples:

```
DLT-LIST-AUTHCODE::COMBOLIST1-1;

ED-LIST-AUTHCODE::COMBOLIST1-1:::AUTHCODE=78025,
   PINCODE=6275;

ENT-LIST-AUTHCODE::COMBOLIST1-1:::AUTHCODE=78025,
   PINCODE=6275;

RTRV-LIST-AUTHCODE::COMBOLIST1-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COMBOLIST1-1:AUTHCODE=78025,PINCODE=6275"
;
```

Related Commands: none

DLT/ENT/RTRV-LIST-SUBSCRNBLK

Commands:

DLT-LIST-SUBSCRNBLK: Delete List Subscriber Screenblock

ENT-LIST-SUBSCRNBLK: Enter List Subscriber Screenblock

RTRV-LIST-SUBSCRNBLK: Retrieve List Subscriber Screenblock

Descriptions:

DLT-LIST-SUBSCRNBLK lets the user remove a list containing strings of digits that a subscriber is blocked from calling.

ENT-LIST-SUBSCRNBLK lets the user create a list containing strings of digits that a subscriber is blocked from calling. ENT-LIST-SUBSCRNBLK will not work unless the ENT-SUBSCRIBER has already been issued.

RTRV-LIST-SUBSCRNBLK lets the user retrieve a list containing strings of digits that a subscriber is blocked from calling

Category: Call Control **Security:** SA for DLT and ENT, View for RTRV

Input Formats:

```
DLT-LIST-SUBSCRNBLK:[TID]:<subScrnBlkAid>:[CTAG];
ENT-LIST-SUBSCRNBLK:[TID]:<subScrnBlkAid>:[CTAG];
RTRV-LIST-SUBSCRNBLK:[TID]:[<subScrnBlkAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<subScrnBlkAid>"
;
```

Parameters:

subScrnBlkAid Identifies the AID with a variable string indicating the subscriber, the type of screened number, and the string of blocked digits. A null value for the third part of the AID is equivalent to "ALL"; that is, by leaving the SCREENSTRING field blank,

(a) for DLT, all screen blocks for the applicable type of screened number (SCREENTYPE) are removed for the designated screen block list

(b) for ENT, the designated screen block list contains all allowable digit strings for the applicable type of screened number

(c) for RTRV, identification of all screen blocks for the applicable type of screened number in the system for the designated screen block list will be returned.

Null values for both the second and third parts of the AID (in RTRV only) is equivalent to "ALL"; that is, by leaving the SCREENTYPE and SCREENSTRING fields blank, all screen blocks and their types for the designated screen block list will be returned

Type: BlockListAid

Range: <BLOCKNAME>-<SCREENTYPE>
[-<SCREENSTRING>], where

BLOCKNAME identifies the name of the list with a string of up to 21 characters;

SCREENTYPE can be:

CUTTHRU = Casual calling carrier (any four-digit string specifying the cic on which calls are blocked – no default)

INTNATIONAL = Direct-dial international (any digit string up to 21 digits, but without 011 prefix)

NATIONAL = Any number in the NANP (*1* or any *NPA* or any *NPA-NXX* or any complete *NPA-NXX-xxxx* or any digit string up to 21 digits)

OPERATOR = Local or long-distance operator request (*0* or *00*)

OPINTRN = Operator-assisted international (“DEFAULT”– blocks all calls prefixed by *01*)

OPNAT = Operator-assisted national (*0* and *411*)

SCREENSTRING identifies the digits to block with a string of up to 21 digits (shown parenthetically for each value of *SCREENTYPE*), or “DEFAULT”.

Default value: none

Input Examples:

```
DLT-LIST-SUBSCRNBLK::XYZ-NATIONAL-508411;
```
(Deletes the specific entry in the XYZ screenblock list)

```
DLT-LIST-SUBSCRNBLK::XYZ-NATIONAL;
```
(Deletes all NATIONAL screentype entries in the XYZ screenblock list)

```
ENT-LIST-SUBSCRNBLK::XYZ-NATIONAL-508411;
```
(Creates the specific entry in the XYZ screenblock list)

```
ENT-LIST-SUBSCRNBLK::XYZ-NATIONAL;
```
(Creates the XYZ screenblock list with all NATIONAL screentype entries)

```
RTRV-LIST-SUBSCRNBLK;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "XYZ-NATIONAL-508411"
   "XYZ-NATIONAL-978411"
   "XYZ-NATIONAL-617411"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-SCREEN-LIST

Commands:

DLT-SCREEN-LIST: Delete Screen List

ED-SCREEN-LIST: Edit Screen List

ENT-SCREEN-LIST: Enter Screen List

RTRV-SCREEN-LIST: Retrieve Screen List

Descriptions:

DLT-SCREEN-LIST lets the user delete a range of subscriber numbers associated with an interface and used for screening calling or called party numbers.

ED-SCREEN-LIST lets the user change the ending number for a range of subscriber numbers associated with an interface and used for screening calling or called party numbers.

ENT-SCREEN-LIST lets the user establish a list of subscriber numbers associated with an interface, so that a calling or called party number can be screened for validity for the interface.

RTRV-SCREEN-LIST lets the user retrieve a list of subscriber numbers associated with an interface and used for screening calling or called party numbers.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-SCREEN-LIST:[TID]:<screenListAid>:[CTAG];

ED-SCREEN-LIST:[TID]:<screenListAid>:[CTAG]::
   ENDRANGE=<endRange>;

ENT-SCREEN-LIST:[TID]:<screenListAid>:[CTAG]::
   [ENDRANGE=<endRange>];

RTRV-SCREEN-LIST:[TID]:[<screenListAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<screenListAid>:[ENDRANGE=<endRange>]"
;
```

Parameters:

screenListAid Identifies the list of calling or called party numbers associated with an interface. The first number in the range identifies the list, and the second identifies the first subscriber number on the list by NPA, NXX, and XXXX. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for all subscriber lists in the system will be returned.

Type: ScreenListAid
Range: {LISTID}-{STARTRANGE}, where
LISTID = {1-32767}, and
STARTRANGE = exactly 10 digits
Default value: none

endRange Identifies the last subscriber number on the list with just the last four digits.

Type: string
Range: {0000-9999}
Default value: none

Input Examples:

```
DLT-SCREEN-LIST::1-5088048100;

ED-SCREEN-LIST::1-5088048100:::ENDRANGE=8999;

ENT-SCREEN-LIST::1-5088048100:::ENDRANGE=8999;

RTRV-SCREEN-LIST::1-5088048100;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1-5088048100:ENDRANGE=8999"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-SUB-ALTDN

Commands:

DLT-SUB-ALTDN: Delete Subscriber ALTDN

ED-SUB-ALTDN: Edit Subscriber ALTDN

ENT-SUB-ALTDN: Enter Subscriber ALTDN

RTRV-SUB-ALTDN: Retrieve Subscriber ALTDN

Descriptions:

DLT-SUB-ALTDN lets the user delete the association between a subscriber and a distinct ring number; that is, an alternate directory number with a distinctive ring assigned to the same subscriber line.

ED-SUB-ALTDN lets the user change the distinctive ring associated with an alternate directory number assigned to a subscriber line

ENT-SUB-ALTDN lets the user associate a previously-configured alternate directory number with a subscriber line and assign a distinctive ring for it.

RTRV-SUB-ALTDN lets the user retrieve the type of distinctive ring associated with an alternate directory number assigned to a subscriber line.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-SUB-ALTDN:[TID]:<altdnAid>:[CTAG];
ED-SUB-ALTDN:[TID]:<altdnAid>:[CTAG]::RING=<ring>;
ENT-SUB-ALTDN:[TID]:<altdnAid>:[CTAG]::RING=<ring>;
RTRV-SUB-ALTDN:[TID]:<altdnAid>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<altdnAid>:RING=<ring>"
;
```

Parameters:

altdnAid Identifies the AID with a variable string indicating the subscriber and the alternate directory number associated with the subscriber. A null value for the second part of the AID (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the type of distinctive ring associated with all alternate directory numbers assigned to the specified subscriber line will be returned.

Type: AltDnAid
Range: <SUBSCRIBERID>-<SUBSCRIBERID>, where the first SUBSCRIBERID identifies the subscriber with a string of exactly 10 digits; and the second SUBSCRIBERID identifies the alternate directory number associated with the subscriber with a string of exactly 10 digits. The alternate directory number cannot be an existing subscriber number.
Default value: none

ring Identifies the distinctive ring associated with the alternate directory number for the subscriber.

Type: enum
Range: 3EKTS = Pattern 3 EKTS
4REMRING = Pattern 4 Reminder Ring
DISTINCTINT = Pattern 1 Distinctive Intergroup
DISTINCTSP = Pattern 2 Special
NORMAL = Pattern 0 Normal
Default value: none

Input Examples:

```
DLT-SUB-ALTDN::5084800909-5088048202;
ED-SUB-ALTDN::5084800909-5088048202:::RING=NORMAL;
ENT-SUB-ALTDN::5084800909-5088048202:::RING=NORMAL;
RTRV-SUB-ALTDN::5084800909-5088048202;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "5084800909-5088048202:RING=NORMAL"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-SUB-IF

Commands:

DLT-SUB-IF: Delete Subscriber Interface

ED-SUB-IF: Edit Subscriber Interface

ENT-SUB-IF: Enter Subscriber Interface

RTRV-SUB-IF: Retrieve Subscriber Interface

Descriptions:

DLT-SUB-IF lets the user delete the association between an interface and a subscriber from the system.

ED-SUB-IF lets the user change the properties for the identified subscriber interface.

ENT-SUB-IF lets the user establish the properties for the identified subscriber interface. The user can provision multiple subscribers on a single interface or multiple interfaces on a single subscriber. ENT-SUB-IF will not work unless ENT-SUBSCRIBER and either ENT-ISDNIF, ENT-CAS-IF, ENT-GR303-IF, or ENT-MGCP-LNGRP have already been issued.

RTRV-SUB-IF lets the user retrieve the properties for the identified subscriber interface.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-SUB-IF:[TID]:<subIfAid>:[CTAG];
```

```
ED-SUB-IF:[TID]:<subIfAid>:[CTAG]::[DN=<dn>],
   [CGPNPROV=<cgpnprov>],[VERIFYCDPN=<verifycdpn>],
   [VERIFYCGPN=<verifycgpn>],[CGPNDC=<cgpndc>],
   [CPSXFER=<cpsxfer>],[RSXFER=<rsxfer>],
   [SCREENLIST=<screenlist>],[AUTHTYPE=<authtype>],
   [AUTHMODE=<authmode>],[ACNTCODELEN=<acntcodelen>],
   [AUTHLIST=<authlist>],[TERMSVC=<termsvc>];
```

```
ENT-SUB-IF:[TID]:<subIfAid>:[CTAG]::[DN=<dn>],
   [CGPNPROV=<cgpnprov>],[VERIFYCDPN=<verifycdpn>],
   [VERIFYCGPN=<verifycgpn>],[CGPNDC=<cgpndc>],
   [CPSXFER=<cpsxfer>],[RSXFER=<rsxfer>],
   [SCREENLIST=<screenlist>],[AUTHTYPE=<authtype>],
   [AUTHMODE=<authmode>],[ACNTCODELEN=<acntcodelen>],
   [AUTHLIST=<authlist>],[TERMSVC=<termsvc>];

RTRV-SUB-IF:[TID]:[<subIfAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<subifaid>:[DN=<dn>],CGPNPROV=<cgpnprov>,
      VERIFYCDPN=<verifycdpn>,VERIFYCGPN=<verifycgpn>,
      CGPNDC=<cgpndc>,CPSXFER=<cpsxfer>,
      RSXFER=<rsxfer>,SCREENLIST=<screenlist>,
      AUTHTYPE=<authtype>,AUTHMODE=<authmode>,
      ACNTCODELEN=<acntcodelen>,AUTHLIST=<authlist>,
      TERMSVC=<termsvc>"
;
```

Parameters:

subIfAid Identifies the subscriber interface and whether it's a CAS , GR303, ISDN, or MGCP interface. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for all subscriber interfaces in the system will be returned.

Type: SubIfAid
Range: {IFNUM}-<SUBIF>, where
IFNUM = {1-2147483647} for CAS,
{1-32767} for GR303 or ISDN,
{1-100000} for MGCP
SUBIF = {CAS, GR303, ISDN, MGCP}
Default value: none

dn Identifies the subscriber associated with the interface. The value cannot be "NULL" for CAS interfaces. Set the value of *denyblv* in SUBSCRIBER to "Y" for subscribers associated with MGCP interfaces.

Type: string
Range: exactly 10 digits
Default value: NULL

cgpnprov Identifies whether calling party number provision is required for origination. You must provide a value for *screenlist* when the interface is CAS or ISDN and calling party number provision is required. You must provide a value for *dn* when the interface is CAS or ISDN and calling party number provision is not required.

Type: enum
Range: NOTREQ = calling party number not required
REQ = calling party number is required
TANDEMIF = tandem interface
Default value: REQ

verifycdpn Identifies, for a termination attempt on the interface, whether to verify the status of the called party number on the switch.

Type: BoolYN
Range: N = Don't screen called party number
Y = Screen called party number
Default value: Y

verifycgpn Identifies, when the value of *cgpnprov* is "NOTREQ", whether to verify the status of the calling party number on the switch.

Type: BoolYN
Range: N = Don't screen calling party number
Y = Screen calling party number
Default value: Y

cgpndc Identifies, when a calling party number fails screening, whether to discard the number or transmit it on the interface.

Type: BoolYN
Range: N = Transmit calling party number on interface
Y = Discard number
Default value: Y

cpsxfer Identifies whether to send out the calling party subaddress received from the calling party interface.

Type: enum
Range: DONTTRANSFER = Don't send out the calling party subaddress
TRANSFERCOND = conditionally send out the calling party subaddress
TRANSFERUNCOND = send out the calling party subaddress without conditions
Default value: DONTTRANSFER

rsxfer Identifies whether to send out the redirecting subaddress received from the calling party interface.

Type: enum
Range: DONTTRANSFER = Don't send out the redirecting subaddress
TRANSFERCOND = Conditionally send out the redirecting subaddress
TRANSFERUNCOND = Send out the redirecting subaddress without conditions
Default value: DONTTRANSFER

screenlist Identifies a valid range of calling or called party numbers for the interface. A value of "NULL" indicates no valid screenlist.

Type: enum
Range: {1-32767}
Default value: NULL

authtype Identifies which calls on the interface require an authorization code.

Type: enum
Range: ALL = all calls require an authorization code
NONE = no calls require an authorization code
TOLL = toll calls only require an authorization code
Default value: NONE

authmode Identifies how authorization code(s) operate on the interface.

Type: enum
Range: NONE = authorization codes do not operate on the interface
ONEPIN = one PIN code per authorization code
ONLYAUTH = only authorization codes
ONLYPIN = only PIN codes
ONLYACNT = only account codes
ACNTAUTH = account codes and authorization codes
Default value: NONE

acntcodelen Identifies the account code length. The default value "0" disables the option; however, in this case the value of *authtype* must be "NONE".

Type: integer
Range: {0-16}
Default value: 0

authlist Identifies the name of the authorization list, previously established via ENT-LIST-AUTHCODE.

Type: string
Range: up to 21 characters
Default value: NULL

termsvc Identifies whether to apply the terminating services for the subscriber specified by *dn* to the interface.

Type: BoolYN
Range: N = do not apply the subscriber's terminating services to the interface
Y = apply the subscriber's terminating services to the interface
Default value: N

Input Examples:

```
DLT-SUB-IF::1-ISDN;
```

```
ED-SUB-IF::1-ISDN:::DN=5088048202,CGPNPROV=REQ,
   VERIFYCDPN=Y,VERIFYCGPN=Y,CGPNDC=Y,
   CPSXFER=DONTTRANSFER,RSXFER=DONTTRANSFER,
   SCREENLIST=1,AUTHTYPE=NONE,AUTHMODE=NONE,
   ACNTCODELEN=0,AUTHLIST=NULL,TERMSVC=N;
```

```
ENT-SUB-IF::1-ISDN:::DN=5088048202,CGPNPROV=REQ,
   VERIFYCDPN=Y,VERIFYCGPN=Y,CGPNDC=Y,
   CPSXFER=DONTTRANSFER,RSXFER=DONTTRANSFER,
   SCREENLIST=1,AUTHTYPE=NONE,AUTHMODE=NONE,
   ACNTCODELEN=0,AUTHLIST=NULL,TERMSVC=N;
```

```
RTRV-SUB-IF::1-ISDN;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1-ISDN:DN=5088048202,CGPNPROV=REQ,VERIFYCDPN=Y,
      VERIFYCGPN=Y,CGPNDC=Y,CPSXFER=DONTTRANSFER,
      RSXFER=DONTTRANSFER,SCREENLIST=1,AUTHTYPE=NONE,
      AUTHMODE=NONE,ACNTCODELEN=0,AUTHLIST=NULL,
      TERMSVC=N"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-SUB-SCFLIST

Commands:

DLT-SUB-SCFLIST: Delete Subscriber Selective Call Feature List

ED-SUB-SCFLIST: Edit Subscriber Selective Call Feature List

ENT-SUB-SCFLIST: Enter Subscriber Selective Call Feature List

RTRV-SUB-SCFLIST: Retrieve Subscriber Selective Call Feature List

Descriptions:

DLT-SUB-SCFLIST lets the user delete the association between a subscriber and a selective call feature list from the system.

ED-SUB-SCFLIST lets the user change the calling party number, and whether it's presented to the called party, for the selective call feature list.

ENT-SUB-SCFLIST lets the user establish the association between a subscriber and a selective call feature list. ENT-SUB-SCFLIST will not work unless ENT-SUBSCRIBER has already been issued with the value of *type* set to "EO".

RTRV-SUB-SCFLIST lets the user retrieve the calling party number(s), and the presentation status, for the identified selective call feature list(s).

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-SUB-SCFLIST:[TID]:<scfListAid>:[CTAG];
ED-SUB-SCFLIST:[TID]:<scfListAid>:[CTAG]::
   [CGPN=<cgpn>],[CGPNPRES=<cgpnPres>];
ENT-SUB-SCFLIST:[TID]:<scfListAid>:[CTAG]::
   [CGPN=<cgpn>],[CGPNPRES=<cgpnPres>];
RTRV-SUB-SCFLIST:[TID]:[<scfListAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<scfListAid>:CGPN=<cgpn>,CGPNPRES=<cgpnPres>"
;
```

Parameters:

scfListAid Identifies the association between an end-office subscriber and a selective call feature list. The first part of the AID identifies the subscriber, the second part identifies the selective call feature, and the third part identifies an index by which a subscriber and associated feature can be related to different calling party numbers. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for all selective call feature list associations in the system will be returned. By leaving just the second part of the AID blank, information for all selective call feature associations for a specific subscriber will be returned. Similarly, leaving the third part of the AID blank returns the different CGPNs for a specific selective call feature list association.

Type: ScfListAid
Range: <subscriberId>-<serviceId>-<index>, where
subscriberId = up to 21 characters
serviceId = SCA (Selective Call Acceptance)
SCF (Selective Call Forwarding)
SCR (Selective Call Rejection)
index = {1-32}
Default value: none

cgpn Identifies the calling party number for a selective call feature list association. You must first define the NPA for the CGPN with the ENT-NATIONAL-NPA command.

Type: string
Range: exactly 10 digits
Default value: none

cgpnPres Identifies whether the designated calling party number is presented to the called number.

Type: enum
Range: PRIVATE = calling party number is not presented to the called number – Caller ID blocked
PUBLIC = calling party number is presented to the called number – Caller ID not blocked
Default value: PUBLIC

Input Examples:

```
DLT-SUB-SCFLIST::6084808001-scf-1;

ED-SUB-SCFLIST::6084808001-scf-1:::CGPN=5084900909,
   CGPNPRES=PUBLIC;

ENT-SUB-SCFLIST::6084808001-scf-1:::CGPN=5084900909,
   CGPNPRES=PUBLIC;

RTRV-SUB-SCFLIST::6084808001-scf-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "6084808001-SCF-1:CGPN=5084900909,CGPNPRES=PUBLIC"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-SUB-SPEED

Commands:

DLT-SUB-SPEED: Delete Subscriber Speedcode

ED-SUB-SPEED: Edit Subscriber Speedcode

ENT- SUB-SPEED: Enter Subscriber Speedcode

RTRV- SUB-SPEED: Retrieve Subscriber Speedcode

Descriptions:

DLT-SUB-SPEED lets the user delete the association between a speed-dialing code (2-9 for single-digit and 20-99 for double-digit) for a subscriber and the called directory number.

ED-SUB-SPEED lets the user change the called directory number associated with a speed-dialing code (2-9 for single-digit and 20-99 for double-digit) for a subscriber.

ENT-SUB-SPEED lets the user establish the called directory number associated with a speed-dialing code (2-9 for single-digit and 20-99 for double-digit) for a subscriber. ENT-SUB-SPEED will not work unless the ENT-SUBSCRIBER has already been issued.

RTRV-SUB-SPEED lets the user retrieve the called directory number associated with a speed-dialing code (2-9 for single-digit and 20-99 for double-digit) for a subscriber.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-SUB-SPEED:[TID]:<subSpeedAid>:[CTAG];
ED-SUB-SPEED:[TID]:<subSpeedAid>:[CTAG]::DN=<dn>;
ENT-SUB-SPEED:[TID]:<subSpeedAid>:[CTAG]::DN=<dn>;
RTRV-SUB-SPEED:[TID]:[<subSpeedAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<subSpeedAid>:[DN=<dn>]"
;
```

Parameters:

subSpeedAid Identifies the AID with a variable string indicating the subscriber with a string of exactly 10 digits, and the associated speed-dialing code. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the speed-dialing codes and associated called directory numbers for all subscribers in the system will be returned. By leaving just the second part of the AID blank, the speed-dialing codes and associated called directory numbers for a particular subscriber will be returned.

Type: SubSpeedAid
Range: <SUBSCRIBERID>-{2-99}
Default value: none

dn Identifies the directory number associated with the speed-dialing code.

Type: string
Range: up to 21 digits
Default value: none

Input Examples:

```
DLT-SUB-SPEED::5088048202-2;
ED-SUB-SPEED::5088048202-2:::DN=5084800909;
ENT-SUB-SPEED::5088048202-2:::DN=5084800909;
RTRV-SUB-SPEED::5088048202-2;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "5088048202-2:DN=5084800909"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-SUBSCRIBER

Commands:

DLT-SUBSCRIBER: Delete Subscriber

ED-SUBSCRIBER: Edit Subscriber

ENT-SUBSCRIBER: Enter Subscriber

RTRV-SUBSCRIBER: Retrieve Subscriber

Descriptions:

DLT-SUBSCRIBER lets the user delete a subscriber from the system. You cannot delete a subscriber until its associated SUB-SCFLIST entries are first deleted.

ED-SUBSCRIBER lets the user change the subscriber information for the identified subscriber.

ENT-SUBSCRIBER lets the user add a new subscriber to the database in the switch.

RTRV-SUBSCRIBER lets the user retrieve the information about a subscriber, if an ID is provided; otherwise, it returns information for all of the subscribers in the system.

Category: Call Control **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-SUBSCRIBER:[TID]:<subscriberid>:[CTAG];
```

```
ED-SUBSCRIBER:[TID]:<subscriberid>:[CTAG]::
   [INTERLATA=<interlata>],[INTRALATA=<intralata>],
   [INTERNATIONAL=<international>],
   [BILLINGNUM=<billingnum>],[ALTCND=<altcnd>],
   [LCC=<lcc>],[PORTEDIN=<portedin>],[CPSD=<cpsd>],
   [RND=<rnd>],[RSD=<rsd>],[COB=<cob>],[SLU=<slu>],
   [ACR=<acr>],[ACRAC=<acrac>],[CFBL=<cfbl>],
   [CFBLAC=<cfblac>],[CFNB=<cfnb>],
   [CFBLECC=<cfblecc>],[CFBCC=<cfbcc>],[CFDA=<cfda>],
   [CFDAAC=<cfdaac>],[CFND=<cfnd>],
   [CFDAECC=<cfdaecc>],[CFDCC=<cfdcc>],
   [CFINT=<cfint>],[CFV=<cfv>],[CFVAC=<cfvac>],
   [CFNV=<cfnv>],[CFVECC=<cfvecc>],[CFVCC=<cfvcc>],
   [CFVRING=<cfvring>],[CFINTL=<cfintl>],
   [CFTOLLFREE=<cftollfree>],[CND=<cnd>],
   [CNDP=<cndp>],[CNDB=<cndb>],[CNAM=<cnam>],
   [CNAMP=<cnamp>],[CNAB=<cnab>],[SUBNAME=<subname>],
   [CIDS=<cids>],[CIDCW=<cidcw>],[CWT=<cwt>],
   [CWC=<cwc>],[TWC=<twc>],[MWC=<mwc>],
   [CRDPCL=<crdpcl>],[COT=<cot>],[RDAS=<rdas>],
   [SC1=<sc1>],[SC2=<sc2>],[VMSTYPE=<vmstype>],
   [VMSLNKID=<vmslnkid>],[VMSMWITYPE=<vmsmwitype>],
   [VMSABRRING=<vmsabrring>],
   [VMSMWIPENDING=<vmsmwipending>],[ACB=<acb>],
   [AR=<ar>],[RMT=<rmt>],[RMTACSCODE=<rmtacscode>],
   [AINTRIGLIST=<aintriglist>],[DIALPLAN=<dialplan>],
   [SUBSCRNBLKLIST=<subscrnblklist>],
   [SUBSCRNBLKLIST2=<subscrnblklist2>],
   [MAXCFSES=<maxcfses>],[MAXMWCSES=<maxmwcses>],
   [SCA=<sca>],[SCAAC=<scaac>],[SCALE=<scale>],
   [SCAPIN=<scapin>],[SCATT=<scatt>],
   [SCARDN=<scardn>],[SCF=<scf>],[SCFAC=<scfac>],
   [SCFLE=<scfle>],[SCFDN=<scfdn>],
   [SCFRING=<scfring>],[MAXSCFSES=<maxscfses>],
   [SCR=<scr>],[SCRAC=<scrac>],[SCRLE=<scrle>],
   [SCRANS=<scrans>],[HOTLN=<hotln>],
   [HOTLNDN=<hotlndn>],[WRMLN=<wrmln>],
   [WRMLNDN=<wrmlndn>],[WRMLNTMR=<wrmlntmr>],
   [DENYBLV=<denyblv>],[HI=<hi>],
   [SUBSTATUS=<substatus>],[NEWNMBR=<newnmbr>];
```

```
ENT-SUBSCRIBER:[TID]:<subscriberid>:[CTAG]::
   [TYPE=<type>],[INTERLATA=<interlata>],
   [INTRALATA=<intralata>],
   [INTERNATIONAL=<international>],
   [BILLINGNUM=<billingnum>],[ALTCND=<altcnd>],
   [LCC=<lcc>],[PORTEDIN=<portedin>],[CPSD=<cpsd>],
   [RND=<rnd>],[RSD=<rsd>],[COB=<cob>],[SLU=<slu>],
   [ACR=<acr>],[ACRAC=<acrac>],[CFBL=<cfbl>],
   [CFBLAC=<cfblac>],[CFNB=<cfnb>],
   [CFBLECC=<cfblecc>],[CFBCC=<cfbcc>],[CFDA=<cfda>],
   [CFDAAC=<cfdaac>],[CFND=<cfnd>],
   [CFDAECC=<cfdaecc>],[CFDCC=<cfdcc>],
   [CFINT=<cfint>],[CFV=<cfv>],[CFVAC=<cfvac>],
   [CFNV=<cfnv>],[CFVECC=<cfvecc>],[CFVCC=<cfvcc>],
   [CFVRING=<cfvring>],[CFINTL=<cfintl>],
   [CFTOLLFREE=<cftollfree>],[CND=<cnd>],
   [CNDP=<cndp>],[CNDB=<cndb>],[CNAM=<cnam>],
   [CNAMP=<cnamp>],[CNAB=<cnab>],[SUBNAME=<subname>],
   [CIDS=<cids>],[CIDCW=<cidcw>],[CWT=<cwt>],
   [CWC=<cwc>],[TWC=<twc>],[MWC=<mwc>],
   [CRDPCL=<crdpcl>],[COT=<cot>],[RDAS=<rdas>],
   [SC1=<sc1>],[SC2=<sc2>],[VMSTYPE=<vmstype>],
   [VMSLNKID=<vmslnkid>],[VMSMWITYPE=<vmsmwitype>],
   [VMSABRRING=<vmsabrring>],
   [VMSMWIPENDING=<vmsmwipending>],[ACB=<acb>],
   [AR=<ar>],[RMT=<rmt>],[RMTACSCODE=<rmtacscode>],
   [AINTRIGLIST=<aintriglist>],[DIALPLAN=<dialplan>],
   [SUBSCRNBLKLIST=<subscrnblklist>],
   [SUBSCRNBLKLIST2=<subscrnblklist2>],
   [MAXCFSES=<maxcfses>],[MAXMWCSES=<maxmwcses>],
   [SCA=<sca>],[SCAAC=<scaac>],[SCALE=<scale>],
   [SCAPIN=<scapin>],[SCATT=<scatt>],
   [SCARDN=<scardn>],[SCF=<scf>],[SCFAC=<scfac>],
   [SCFLE=<scfle>],[SCFDN=<scfdn>],
   [SCFRING=<scfring>],[MAXSCFSES=<maxscfses>],
   [SCR=<scr>],[SCRAC=<scrac>],[SCRLE=<scrle>],
   [SCRANS=<scrans>],[HOTLN=<hotln>],
   [HOTLNDN=<hotlndn>],[WRMLN=<wrmln>],
   [WRMLNDN=<wrmlndn>],[WRMLNTMR=<wrmlntmr>],
   [DENYBLV=<denyblv>],[HI=<hi>],
   [SUBSTATUS=<substatus>];

RTRV-SUBSCRIBER:[TID]:[<subscriberid>]:[CTAG];
```

Output Format:

```
    SID DATE TIME
M   CTAG COMPLD
    "<subscriberid>:TYPE=<type>,INTERLATA=<interlata>,
       INTRALATA=<intralata>,
       INTERNATIONAL=<international>,
       BILLINGNUM=<billingnum>,ALTCND=<altcnd>,
       LCC=<lcc>,PORTEDIN=<portedin>,CPSD=<cpsd>,
       RND=<rnd>,RSD=<rsd>,COB=<cob>,SLU=<slu>,
       ACR=<acr>,ACRAC=<acrac>,CFBL=<cfbl>,
       CFBLAC=<cfblac>,CFNB=<cfnb>,CFBLECC=<cfblecc>,
       CFBCC=<cfbcc>,CFDA=<cfda>,CFDAAC=<cfdaac>,
       CFND=<cfnd>,CFDAECC=<cfdaecc>,CFDCC=<cfdcc>,
       CFINT=<cfint>,CFV=<cfv>,CFVAC=<cfvac>,
       CFNV=<cfnv>,CFVECC=<cfvecc>,CFVCC=<cfvcc>,
       CFVRING=<cfvring>,CFINTL=<cfintl>,
       CFTOLLFREE=<cftollfree>,CND=<cnd>,CNDP=<cndp>,
       CNDB=<cndb>,CNAM=<cnam>,CNAMP=<cnamp>,
       CNAB=<cnab>,SUBNAME=<subname>,CIDS=<cids>,
       CIDCW=<cidcw>,CWT=<cwt>,CWC=<cwc>,TWC=<twc>,
       MWC=<mwc>,CRDPCL=<crdpcl>,COT=<cot>,RDAS=<rdas>,
       SC1=<sc1>,SC2=<sc2>,VMSTYPE=<vmstype>,
       VMSLNKID=<vmslnkid>,VMSMWITYPE=<vmsmwitype>,
       VMSABRRING=<vmsabrring>,
       VMSMWIPENDING=<vmsmwipending>,ACB=<acb>,
       AR=<ar>,RMT=<rmt>,RMTACSCODE=<rmtacscode>,
       AINTRIGLIST=<aintriglist>,DIALPLAN=<dialplan>,
       SUBSCRNBLKLIST=<subscrnblklist>,
       SUBSCRNBLKLIST2=<subscrnblklist2>,
       MAXCFSES=<maxcfses>,MAXMWCSES=<maxmwcses>,
       SCA=<sca>,SCAAC=<scaac>,SCALE=<scale>,
       SCAPIN=<scapin>,SCATT=<scatt>,SCARDN=<scardn>,
       SCF=<scf>,SCFAC=<scfac>,SCFLE=<scfle>,
       SCFDN=<scfdn>,SCFRING=<scfring>,
       MAXSCFSES=<maxscfses>,SCR=<scr>,SCRAC=<scrac>,
       SCRLE=<scrle>,SCRANS=<scrans>,HOTLN=<hotln>,
       HOTLNDN=<hotlndn>,WRMLN=<wrmln>,
       WRMLNDN=<wrmlndn>,WRMLNTMR=<wrmlntmr>,
       DENYBLV=<denyblv>,HI=<hi>,SUBSTATUS=<substatus>,
       NEWNMBR=<newnmbr>"
;
```

Parameters:

subscriberid Identifies the subscriber. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for all subscribers in the system will be returned. When the value of *type* is “EO”, the NPA and NXX included in the subscriber number must be previously defined using ENT-HOME-NXX.

Type: string
Range: exactly 10 digits
Default value: none

type Identifies the type of subscriber.

Type: enum
Range: EO = End Office subscriber
IXC = Inter-eXchange Carrier subscriber
Default value: EO

interlata Identifies the Primary Inter-exchange (long distance) Carrier for the subscriber. This parameter must first be defined with the ENT-CARRIER command, in which the value of *CallType* cannot be “CASUALDIAL”.

Type: integer
Range: {0-9999, NONE}
Default value: NONE

intralata Identifies the Primary IntraLATA Carrier for the subscriber. This parameter must first be defined with the ENT-CARRIER command, in which the value of *CallType* cannot be “CASUALDIAL”.

Type: integer
Range: {0-9999, NONE}
Default value: NONE

international Identifies the Primary International Carrier for the subscriber. This parameter must first be defined with the ENT-CARRIER command, in which the value of *CallType* cannot be “CASUALDIAL”.

Type: integer
Range: {0-9999}
Default value: the value for *interlata*

billingnum Identifies an alternative telephone number for billing records, optionally provided when the subscriber prefers charges to be applied to another number. The NPA included in the billing number must be previously defined using ENT-NATIONAL-NPA when the value of *type* is "EO".

Type: string
Range: up to 21 digits
Default value: value of *subscriberid* when the value of *type* is "EO"; NULL when the value of *type* is "IXC"

altcnd Identifies the alternate number for calling number delivery.

Type: string
Range: exactly 10 digits
Default value: NULL

lcc Identifies the Line Class Code, previously defined using ENT-LCC. Although it is an optional parameter, you must provide a value for *lcc* to effect line-side calls.

Type: string
Range: three or four characters
Default value: NULL

portedin Identifies whether the subscriber is ported in from another switch, without validating home NPA or home NXX.

Type: BoolYN
Range: N = subscriber is not ported in
Y = subscriber is ported in
Default value: N

cpsd Identifies whether to deliver the calling party subaddress for ISDN interfaces.

Type: enum
Range: CONDITIONAL = Deliver the calling party subaddress conditionally
UNCONDITIONAL = Deliver the calling party subaddress unconditionally
Default value: UNCONDITIONAL

rnd Identifies whether to deliver a redirecting number for ISDN interfaces.

Type: enum
Range: DELIVER = Deliver a redirecting number
DELIVERNONE = Don't deliver a redirecting number
Default value: DELIVERNONE

rsd Identifies whether to deliver the redirecting subaddress for ISDN interfaces.

Type: enum
Range: CONDITIONAL = Deliver the redirecting subaddress conditionally
UNCONDITIONAL = Deliver the redirecting subaddress unconditionally
Default value: UNCONDITIONAL

cob Identifies whether to collect detailed AMA data generated for connected and unconnected calls for the purpose of complaint observing, typically for customers questioning their telephone bills.

Type: enum
Range: OFF = collect AMA data for complaint observing
ON = do not collect AMA data for complaint observing
Default value: OFF

slu Identifies whether the subscriber's line is designated for a Subscriber Line Usage Study (SLUS) requiring detailed AMA data generated for connected and unconnected calls. The SLUS generates data that portrays the calling patterns and service usage of customer lines. SLUSs are used in planning measured service tariffs and determining tariff effects.

Type: enum
Range: OFF = the subscriber's line is not designated for a SLUS
ON = the subscriber's line is designated for a SLUS
Default value: OFF

acr Identifies whether Anonymous Call Rejection is billed on a per-usage basis or at a flat rate.

Type: enum
Range: FR = Flat Rate billing
NONE = Subscriber cannot use feature
US = Usage billing
Default value: NONE

acrac Identifies whether Anonymous Call Rejection is active.

Type: BoolYN
Range: N = Anonymous Call Rejection is not active
Y = Anonymous Call Rejection is active
Default value: N

cfbl Identifies whether Call Forwarding Busy Line is billed on a per-usage basis or at a flat rate.

Type: enum
Range: FR = Flat Rate billing
NONE = Subscriber cannot use feature
US = Usage billing
Default value: NONE

cfblac Identifies whether Call Forwarding Busy Line is active.

Type: BoolYN
Range: N = Call Forwarding Busy Line is not active
Y = Call Forwarding Busy Line is active
Default value: N

cfnb Identifies the directory number to which the subscriber's calls are forwarded when the subscriber's line is busy.

Type: string
Range: up to 31 digits
Default value: NULL

cfblecc Identifies whether to establish a courtesy call to the remote directory number specified by *cfnb*, and whether an answer is required to activate the Call Forwarding Busy Line service.

Type: enum
Range: ANSRQC = Answer Required with Confirmation indication
ANSRQNC = Answer Required with No Confirmation indication
NANSR = No Answer Required
NECC = do Not Establish Courtesy Call
Default value: ANSRQC

cfbcc Identifies whether Call Forwarding Busy Line activation is controlled by the subscriber (using star codes) or solely by the service provider.

Type: BoolYN
Range: N = Call Forwarding Busy Line activation controlled solely by the service provider
Y = Call Forwarding Busy Line activation controlled by both the service provider and the subscriber
Default value: N

cfda Identifies whether Call Forwarding Don't Answer is billed on a per-usage basis or at a flat rate.

Type: enum
Range: FR = Flat Rate billing
NONE = Subscriber cannot use feature
US = Usage billing
Default value: NONE

cfdaac Identifies whether Call Forwarding Don't Answer is active.

Type: BoolYN
Range: N = Call Forwarding Don't Answer is not active
Y = Call Forwarding Don't Answer is active
Default value: N

cfnd Identifies the directory number to which the subscriber's calls are forwarded when the subscriber does not answer.

Type: string
Range: up to 31 digits
Default value: NULL

cfdaecc Identifies whether to establish a courtesy call to the remote directory number specified by *cfda*, and whether an answer is required to activate the Call Forwarding Don't Answer service.

Type: enum
Range: ANSRQC = Answer Required with Confirmation indication
ANSRQNC = Answer Required with No Confirmation indication
NANSR = No Answer Required
NECC = do Not Establish Courtesy Call
Default value: ANSRQC

cfdcc Identifies whether Call Forwarding Don't Answer activation is controlled by the subscriber (using star codes) or solely by the service provider.

Type: BoolYN
Range: N = Call Forwarding Don't Answer activation controlled solely by the service provider
Y = Call Forwarding Don't Answer activation controlled by both the service provider and the subscriber
Default value: N

cfInt Identifies the number of rings to be completed before the call is forwarded when the subscriber does not answer.

Type: integer
Range: {1-10}
Default value: 6

cfv Identifies whether Call Forwarding Variable is billed on a per-usage basis or at a flat rate.

Type: enum
Range: FR = Flat Rate billing
NONE = Subscriber cannot use feature
US = Usage billing
Default value: NONE

cfvac Identifies whether Call Forwarding Variable is enabled.

Type: BoolYN
Range: N = Call Forwarding Variable is not active
Y = Call Forwarding Variable is active
Default value: N

cfnv Identifies the directory number to which the subscriber's calls are forwarded when the subscriber activates call forwarding.

Type: string
Range: up to 31 digits
Default value: NULL

cfvecc Identifies whether to establish a courtesy call to the remote directory number specified by *cfnb*, and whether an answer is required to activate the Call Forwarding Variable service.

Type: enum
Range: ANSRQC = Answer Required with Confirmation indication
ANSRQNC = Answer Required with No Confirmation indication
NANSR = No Answer Required
NECC = do Not Establish Courtesy Call
Default value: ANSRQC

cfvcc Identifies whether Call Forwarding Variable activation is controlled by the subscriber or solely by the service provider.

Type: BoolYN
Range: N = Call Forwarding Variable activation controlled solely by the service provider
Y = Call Forwarding Variable activation controlled by both the service provider and the subscriber
Default value: Y

cfvring Identifies whether Call Forwarding Variable Reminder Notification is suppressed or sent to the base directory number; that is, whether the switch suppresses notification or notifies the base directory number (via a reminder ring) that a call has been forwarded and therefore, that the CFV feature is active.

Type: BoolYN
Range: N = send notification
Y = suppress notification
Default value: N

cfintl Identifies whether international call forwarding is allowed.

Type: BoolYN
Range: N = international call forwarding is not allowed
Y = international call forwarding is allowed
Default value: N

cftollfree Identifies whether tollfree call forwarding is allowed.

Type: BoolYN
Range: N = tollfree call forwarding is not allowed
Y = tollfree call forwarding is allowed
Default value: N

cnd Identifies whether Caller Number Delivery is billed on a per-usage basis or at a flat rate.

Type: enum
Range: FR = Flat Rate billing
NONE = Subscriber cannot use feature
US = Usage billing
Default value: NONE

cndp Identifies whether the calling party number is presented to the called number.

Type: enum
Range: PRIVATE = calling party number is not presented to the called number – Caller ID blocked
PUBLIC = calling party number is presented to the called number – Caller ID not blocked
Default value: PUBLIC

cndb Identifies whether Caller Number Delivery Blocking is billed on a per-usage basis or at a flat rate.

Type: enum
Range: FR = Flat Rate billing
NONE = Subscriber cannot use feature
US = Usage billing
Default value: FR

cnam Identifies whether Calling Name Delivery is billed on a per-usage basis or at a flat rate.

Type: enum
Range: FR = Flat Rate billing
NONE = Subscriber cannot use feature
US = Usage billing
Default value: NONE

cnamp Identifies whether the calling party name is presented to the called number.

Type: enum
Range: PRIVATE = calling party number is not presented to the called number – Caller ID blocked
PUBLIC = calling party number is presented to the called number – Caller ID not blocked
Default value: PUBLIC

cnab Identifies whether Caller Name Delivery Blocking is billed on a per-usage basis or at a flat rate.

Type: enum
Range: FR = Flat Rate billing
NONE = Subscriber cannot use feature
US = Usage billing
Default value: FR

subName Identifies the subscriber name.

Type: string
Range: up to 15 characters
Default value: NULL

cids Identifies whether Calling Identity Delivery Suppression is billed on a per-usage basis or at a flat rate.

Type: enum
Range: FR = Flat Rate billing
NONE = Subscriber cannot use feature
US = Usage billing
Default value: FR

cidcw Identifies whether Calling Identity Delivery on Call Waiting is enabled; that is, whether a subscriber, while off-hook on an existing call, can receive information about a calling party on a waited call. You cannot enable *cidcw* without first enabling either *cnd* or *cnam*. You cannot concurrently enable *cidcw* and *cwt*.

Type: enum
Range: NONE = Subscriber cannot use feature
STND = Standard Calling Identity Delivery on Call Waiting
Default value: NONE

cwt Identifies whether Call Waiting is enabled; that is, whether a subscriber, while off-hook on an existing call, can receive audio indication that another call is waiting. You cannot concurrently enable *cwt* and *cidcw*.

Type: enum
Range: NONE = Subscriber cannot use feature
STND = Standard Call Waiting
Default value: NONE

cwc Identifies whether Call Waiting Cancel is enabled; that is, whether a subscriber can cancel call waiting for the duration of a call.

Type: enum
Range: NONE = Subscriber cannot use feature
STND = Standard Call Waiting Cancel
Default value: NONE

twc Identifies whether Three-Way Calling (that is, whether a subscriber can add a third party to an existing conversation without operator assistance) is billed on a per-usage basis or at a flat rate.

Type: enum
Range: FR = Flat Rate billing
NONE = Subscriber cannot use feature
US = Usage billing
Default value: NONE

mwc Identifies whether Multi-Way Calling is enabled; that is, whether a subscriber can add a third party to a call and whether it is billed on a per-usage basis or on a flat rate.

Type: enum
Range: AOTC = Add-On Call Transfer billed at flat rate
AOTCUS = Add-On Call Transfer billed on per-usage basis
NONE = Subscriber cannot use feature
Default value: NONE

crdpcl Identifies whether Code Restriction/Diversion Prohibited Code List is enabled; that is, whether a subscriber can block numbers.

Type: enum
Range: NONE = Subscriber cannot use feature
UNRES = Unrestricted usage
Default value: NONE

cot Identifies whether Customer-Originated Trace is billed on a per-usage basis or at a flat rate. Customer-Originated Trace allows a subscriber to request, by activating the feature, tracing the last call received and providing the data from the traced call to an authorized agency.

Type: enum
Range: FR = Flat Rate billing
NONE = Subscriber cannot use feature
US = Usage billing
Default value: NONE

rdas Identifies whether Residence Distinctive Alerting Service is enabled; that is, whether a subscriber can have an alternate directory number with an associated distinctive ring.

Type: enum
Range: NONE = Subscriber cannot use feature
SCDN = RDAS feature is active – DN is assigned as the Secondary DN for the RDAS feature.
Default value: NONE

sc1 Identifies whether one-digit speed-calling is enabled. Using one-digit speed-calling does not preclude using two-digit speed-calling; i.e., a subscriber can have both enabled concurrently.

Type: enum
Range: NONE = Subscriber cannot use feature
SC1CC = Speed Calling One Digit, customer controlled
SC1D = Speed Calling One Digit, not customer controlled
Default value: NONE

sc2 Identifies whether two-digit speed-calling is enabled. Using two-digit speed-calling does not preclude using one-digit speed-calling; i.e., a subscriber can have both enabled concurrently.

Type: enum
Range: NONE = Subscriber cannot use feature
SC2CC = Speed Calling Two Digit, customer controlled
SC2D = Speed Calling Two Digit, not customer controlled
Default value: NONE

vmstype Identifies whether voice mail service is enabled; that is, whether a subscriber can have calls forwarded to a Voice Mail System (VMS) when the subscriber's line is busy or is not answered.

Type: enum
Range: BNA = Subscriber has call forwarding on Busy/No Answer (when the subscriber's line is busy or is not answered)
BUSY = Subscriber has call forwarding only when the subscriber's line is busy
NOANS = Subscriber has call forwarding only when the subscriber's line is not answered
NONE = Subscriber does not have voice mail service
Default value: NONE

vmslnkid Identifies the SMDI (Simplified Message Desk Interface) data link between the switch and a Voice Mail System when the value of *vmstype* is "BNA". The pattern is a combination of a generic Message Storage and Retrieval (MSR) system in a VMS and an SMDI data link between it and the switch. The subscriber cannot enable voice mail without first using ENT-VMS-LNK to define the SMDI data link.

Type: enum
Range: <msrId>-<smdiLnkId>, where
msrId = {1-999} and
smdiLnkId = {1-8}
Default value: NULL

vmsmwitype Identifies the type of Message Waiting Indicator (MWI) used to alert a subscriber with voice mail service to new messages.

Type: enum
Range: AMWI = Audio Message Waiting Indicator
BOTH = both audio and visual Message Waiting Indicators
VMWI = Visual Message Waiting Indicator
Default value: AMWI

vmsabrring Identifies whether the subscriber, as a part of the voice mail service, is provisioned with Abbreviated Ring; that is, whether a subscriber with VMWI will receive an abbreviated (500 msec) ring at the disconnection of a call as an alert that there is a waiting message received while the line was busy.

Type: BoolYN
Range: N = Subscriber will not receive an abbreviated ring
Y = Subscriber will receive an abbreviated ring
Default value: N

vmsmwipending Identifies (in ED, and RTRV output) whether the subscriber has a message waiting at the Voice Mail System. Setting the value to "N" causes the switch to transmit an "Indicator Off" message to the subscriber's line to manually deactivate the subscriber's Message Waiting Indicator. Although this parameter has two possible values, you cannot set the value to "Y", as only the external event of receiving a message can turn on the indicator. The factory default is "N".

Type: BoolYN
Range: N = the subscriber does not have a message waiting
Y = the subscriber has a message waiting
Default value: N

acb Identifies whether Automatic Call-Back service is billed on a per-usage basis or at a flat rate.

Type: enum
Range: FR = Subscriber billed at a flat rate
NONE = Subscriber cannot use feature
US = Subscriber billed on a per-usage basis
Default value: NONE

ar Identifies whether Automatic Recall service is billed on a per-usage basis or at a flat rate.

Type: enum
Range: FR = Subscriber billed at a flat rate
NONE = Subscriber cannot use feature
US = Subscriber billed on a per-usage basis
Default value: NONE

rmt Identifies whether the subscriber can remotely access services (specifically call forwarding) and whether the service is billed on a per-usage basis or at a flat rate. Enabling remote access to services does not enable any service. You must first enter a value for *rmtacscode* before you can select the values "FR" or "US".

Type: enum
Range: FR = Subscriber billed at a flat rate
NONE = Subscriber cannot use feature
US = Subscriber billed on a per-usage basis
Default value: NONE

rmtacscode Identifies the access code the subscriber must enter to remotely access services (specifically call forwarding).

Type: string
Range: four to eight digits (including "#" and "*")
Default value: NULL

aintriglist Identifies the list of AIN triggers applicable to the subscriber. This parameter must first be defined with the ENT-LIST-AINTRIGGER command, in which the value of *category* must be "SUBSCRIBED".

Type: string
Range: up to 21 characters
Default value: NULL

dialplan Identifies the dial plan, previously defined using ENT-DIALPLAN, applicable to the subscriber.

Type: string
Range: up to 21 characters
Default value: NULL

subscrnblklist Identifies the list of screen blocks, previously defined using ENT-LIST-SCREENBLOCK, applicable to the subscriber.

Type: string
Range: up to 21 characters
Default value: NULL

subscrnblklist2 Identifies the secondary list of screen blocks, previously defined using ENT-LIST-SCREENBLOCK, applicable to the subscriber.

Type: string
Range: up to 21 characters
Default value: NULL

maxcfses Identifies the maximum number of concurrent sessions allowed for CFV, CFBL and CFDA for this subscriber. The switch maintains separate counts for each call-forwarding service if more than one is active simultaneously.

Type: integer
Range: {0-255}
Default value: 8

maxmwcses Identifies the maximum number of concurrent multi-way calling sessions allowed for the subscriber.

Type: integer
Range: {0-255}
Default value: 8

sca Identifies whether Selective Call Acceptance is billed on a per-usage basis or at a flat rate.

Type: enum
Range: FR = Flat Rate billing
NONE = Subscriber cannot use feature
US = Usage billing
Default value: NONE

scaac Identifies whether Selective Call Acceptance is enabled.

Type: BoolYN
Range: N = Selective Call Acceptance is not active
Y = Selective Call Acceptance is active
Default value: N

scale Identifies whether the subscriber can edit the screening list for Selective Call Acceptance.

Type: BoolYN
Range: N = subscriber cannot edit the screening list
Y = subscriber can edit the screening list
Default value: Y

scapin Identifies the PIN number entered by a caller to complete a call to a subscriber with SCA activated.

Type: string
Range: four to eight digits
Default value: NULL

scatt Identifies the termination treatment for calls not accepted due to active SCA.

Type: enum
Range: FWD = forward unaccepted call
REJ = play rejection announcement
Default value: REJ

scardn Identifies the directory number to which unaccepted calls (due to SCA) are forwarded.

Type: string
Range: up to 32 digits
Default value: NULL

scf Identifies whether Selective Call Forwarding is billed on a per-usage basis or at a flat rate.

Type: enum
Range: FR = Flat Rate billing
NONE = Subscriber cannot use feature
US = Usage billing
Default value: NONE

scfac Identifies whether Selective Call Forwarding is enabled.

Type: BoolYN
Range: N = Selective Call Forwarding is not active
Y = Selective Call Forwarding is active
Default value: N

scfle Identifies whether the subscriber can edit the screening list for Selective Call Forwarding.

Type: BoolYN
Range: N = subscriber cannot edit the screening list
Y = subscriber can edit the screening list
Default value: Y

scfdn Identifies the directory number to which calls on the subscriber's SCF list are forwarded.

Type: string
Range: up to 32 digits
Default value: NULL

scfring Identifies whether Selective Call Forwarding Reminder Notification is suppressed or sent to the base directory number; that is, whether the switch suppresses notification or notifies the base directory number (via a reminder ring) that a call has been forwarded and therefore, that the SCF feature is active.

Type: BoolYN
Range: N = send notification
Y = suppress notification
Default value: N

maxscfses Identifies the maximum number of concurrent sessions allowed for SCF and SCA (if remote DN) for this subscriber. The switch maintains separate counts for SCF and SCA if both are active simultaneously.

Type: integer
Range: {0-32}
Default value: 8

scr Identifies whether Selective Call Rejection is billed on a per-usage basis or at a flat rate.

Type: enum
Range: FR = Flat Rate billing
NONE = Subscriber cannot use feature
US = Usage billing
Default value: NONE

scrac Identifies whether Selective Call Rejection is enabled.

Type: BoolYN
Range: N = Selective Call Rejection is not active
Y = Selective Call Rejection is active
Default value: N

scrle Identifies whether the subscriber can edit the screening list for Selective Call Rejection.

Type: BoolYN
Range: N = subscriber cannot edit the screening list
Y = subscriber can edit the screening list
Default value: Y

scrans Identifies whether answer supervision (an ANM or off-hook message) is sent to the originating office when a calling party is connected to the SCR rejection announcement.

Type: BoolYN
Range: N = answer supervision is not sent
Y = answer supervision is sent
Default value: N

hotln Identifies the subscription option for Hotline service. The value of *hotln* cannot be "FR" when the value of *hotlndn* is "NULL", or when the value of *warmln* is "FR".

Type: enum
Range: FR = Flat Rate billing
NONE = Subscriber cannot use feature
Default value: NONE

hotlndn Identifies the directory number to which Hotline calls for the subscriber are forwarded.

Type: string
Range: up to 18 digits
Default value: NULL

warmln Identifies the subscription option for Warmline service. The value of *warmln* cannot be "FR" when the value of *warmlndn* is "NULL", when the value of *hotln* is "FR", or when the subscriber is associated with an MGCP subscriber interface via the SUB-IF command.

Type: enum
Range: FR = Flat Rate billing
NONE = Subscriber cannot use feature
Default value: NONE

warmlndn Identifies the directory number to which Warmline calls for the subscriber are forwarded.

Type: string
Range: up to 18 digits
Default value: NULL

warmlntmr Identifies the Warmline timer value; that is, the number of seconds the switch waits for digit input before routing a call to the Warmline directory number.

Type: integer
Range: {0-30}
Default value: 10

denyblv Identifies whether Deny Busy Line Verification is enabled. Set the value to "Y" when assigning an MGCP endpoint to the subscriber with the SUB-IF command. You cannot set the value to "N" while the subscriber is associated with an MGCP interface.

Type: BoolYN
Range: N = do not enable Deny Busy Line Verification
Y = enable Deny Busy Line Verification
Default value: N

hi Identifies the subscription option for Home Intercom service.

Type: enum
Range: FR = Flat Rate billing
NONE = Subscriber cannot use feature
Default value: NONE

substatus Identifies the status of the telephone number representing the subscriber. You cannot select the value "CHANGED" in ENT-SUBSCRIBER; it only applies to ED-SUBSCRIBER.

Type: enum
Range: ACTIVE = number in service
CHANGED = number changed
DISCONNECTED = number disconnected
OOS = number out of service
Default value: NULL

newnmbr Identifies (in ED, and RTRV output) a new number that replaces the subscriber's original number, but only when the value of *substatus* is "CHANGED". The factory default is "NULL".

Type: string
Range: up to 31 digits
Default value: NULL

Input Examples:

```
DLT-SUBSCRIBER::5088048202;
```

```
ED-SUBSCRIBER::5088048202:::INTERLATA=NONE,
   INTRALATA=NONE,INTERNATIONAL=NONE,
   BILLINGNUM=5084800909,ALTCND=5084800909,LCC=123,
   PORTEDIN=N,CPSD=UNCONDITIONAL,RND=DELIVERNONE,
   RSD=UNCONDITIONAL,COB=OFF,SLU=OFF,ACR=NONE,
   ACRAC=N,CFBL=NONE, CFBLAC=N,CFNB=NULL,
   CFBLECC=ANSRQC,CFBCC=N,CFDA=NONE,CFDAAC=N,
   CFND=NULL,CFDAECC=ANSRQC,CFDCC=N,CFINT=6,CFV=FR,
   CFVAC=N,CFNV=NULL,CFVECC=ANSRQC,CFVCC=Y,CFVRING=N,
   CFINTL=N,CFTOLLFREE=N,CND=NONE,CNDP=PUBLIC,CNDB=FR,
   CNAM=NONE,CNAMP=PUBLIC,CNAB=FR,SUBNAME=NULL,
   CIDS=FR,CIDCW=NONE,CWT=NONE,CWC=NONE,TWC=NONE,
   MWC=NONE,CRDPCL=NONE,COT=NONE,RDAS=NONE,SC1=NONE,
   SC2=NONE,VMSTYPE=NONE,VMSLNKID=NULL,
   VMSMWITYPE=AMWI,VMSABRRING=N,VMSMWIPENDING=N,
   ACB=NONE,AR=NONE,RMT=NONE,RMTACSCODE=NULL,
   AINTRIGLIST=NULL,DIALPLAN=NULL,SUBSCRNBLKLIST=NULL,
   SUBSCRNBLKLIST2=NULL,MAXCFSES=8,MAXMWCSES=8,
   SCA=NONE,SCAAC=N,SCALE=Y,SCAPIN=NULL,SCATT=REJ,
   SCARDN=NULL,SCF=FR,SCFAC=N,SCFLE=N,SCFDN=NULL,
   SCFRING=N,MAXSCFSES=8,SCR=NONE,SCRAC=N,SCRLE=Y,
   SCRANS=N,HOTLN=NONE,HOTLNDN=NULL,WRMLN=FR,
   WRMLNDN=911,WRMLNTMR=1,DENYBLV=N,HI=NONE,
   SUBSTATUS=ACTIVE;
```

```
ENT-SUBSCRIBER::5088048202:::TYPE=EO,INTERLATA=NONE,
   INTRALATA=NONE,INTERNATIONAL=NONE,
   BILLINGNUM=5084800909,ALTCND=5084800909,LCC=123,
   PORTEDIN=N,CPSD=UNCONDITIONAL,RND=DELIVERNONE,
   RSD=UNCONDITIONAL,COB=OFF,SLU=OFF,ACR=NONE,
   ACRAC=N,CFBL=NONE,CFBLAC=N,CFNB=NULL,
   CFBLECC=ANSRQC,CFBCC=N,CFDA=NONE,CFDAAC=N,
   CFND=NULL,CFDAECC=ANSRQC,CFDCC=N,CFINT=6,CFV=FR,
   CFVAC=N,CFNV=NULL,CFVECC=ANSRQC,CFVCC=Y,CFVRING=N,
   CFINTL=N,CFTOLLFREE=N,CND=NONE,CNDP=PUBLIC,CNDB=FR,
   CNAM=NONE,CNAMP=PUBLIC,CNAB=FR,SUBNAME=NULL,
   CIDS=FR,CIDCW=NONE,CWT=NONE,CWC=NONE,TWC=NONE,
   MWC=NONE,CRDPCL=NONE,COT=NONE,RDAS=NONE,SC1=NONE,
   SC2=NONE,VMSTYPE=NONE,VMSLNKID=NULL,
   VMSMWITYPE=AMWI,VMSABRRING=N,VMSMWIPENDING=N,
   ACB=NONE,AR=NONE,RMT=NONE,RMTACSCODE=NULL,
   AINTRIGLIST=NULL,DIALPLAN=NULL,SUBSCRNBLKLIST=NULL,
   SUBSCRNBLKLIST2=NULL,MAXCFSES=8,MAXMWCSES=8,
   SCA=NONE,SCAAC=N,SCALE=Y,SCAPIN=NULL,SCATT=REJ,
   SCARDN=NULL,SCF=FR,SCFAC=N,SCFLE=N,SCFDN=NULL,
   SCFRING=N,MAXSCFSES=8,SCR=NONE,SCRAC=N,SCRLE=Y,
   SCRANS=N,HOTLN=NONE,HOTLNDN=NULL,WRMLN=FR,
   WRMLNDN=911,WRMLNTMR=1,DENYBLV=N,HI=NONE,
   SUBSTATUS=ACTIVE;

RTRV-SUBSCRIBER::5088048202;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "5088048202:TYPE=EO,INTERLATA=NONE,INTRALATA=NONE,
      INTERNATIONAL=NONE,BILLINGNUM=5084800909,
      ALTCND=5084800909,LCC=123,PORTEDIN=N,
      CPSD=UNCONDITIONAL,RND=DELIVERNONE,
      RSD=UNCONDITIONAL,COB=OFF,SLU=OFF,ACR=NONE,
      ACRAC=N,CFBL=NONE,CFBLAC=N,CFNB=NULL,
      CFBLECC=ANSRQC,CFBCC=N,CFDA=NONE,CFDAAC=N,
      CFND=NULL,CFDAECC=ANSRQC,CFDCC=N,CFINT=6,CFV=FR,
      CFVAC=N,CFNV=NULL,CFVECC=ANSRQC,CFVCC=Y,
      CFVRING=N,CFINTL=N,CFTOLLFREE=N,CND=NONE,
      CNDP=PUBLIC,CNDB=FR,CNAM=NONE,CNAMP=PUBLIC,
      CNAB=FR,SUBNAME=NULL,CIDS=FR,CIDCW=NONE,
      CWT=NONE,CWC=NONE,TWC=NONE,MWC=NONE,CRDPCL=NONE,
      COT=NONE,RDAS=NONE,SC1=NONE,SC2=NONE,
      VMSTYPE=NONE,VMSLNKID=NULL,VMSMWITYPE=AMWI,
      VMSABRRING=N,VMSMWIPENDING=N,ACB=NONE,AR=NONE,
      RMT=NONE,RMTACSCODE=NULL,AINTRIGLIST=NULL,
      DIALPLAN=NULL,SUBSCRNBLKLIST=NULL,
      SUBSCRNBLKLIST2=NULL,MAXCFSES=8,MAXMWCSES=8,
      SCA=NONE,SCAAC=N,SCALE=Y,SCAPIN=NULL,SCATT=REJ,
      SCARDN=NULL,SCF=FR,SCFAC=N,SCFLE=N,SCFDN=NULL,
      SCFRING=N,MAXSCFSES=8,SCR=NONE,SCRAC=N,SCRLE=Y,
      SCRANS=N,HOTLN=NONE,HOTLNDN=NULL,WRMLN=FR,
      WRMLNDN=911,WRMLNTMR=1,DENYBLV=N,HI=NONE,
      SUBSTATUS=ACTIVE,NEWNMBR=NULL"
;
```

Related Commands: none

ED/RTRV-SERVICE-ACCESSCODE

Commands:

ED-SERVICE-ACCESSCODE: Edit Service ACCESSCODE

RTRV-SERVICE-ACCESSCODE: Retrieve Service ACCESSCODE

Descriptions:

ED-SERVICE-ACCESSCODE lets the user change the description, activation/deactivation codes, executing platform, and state for individual IN (Intelligent Network) services.

RTRV-SERVICE-ACCESSCODE lets the user retrieve the description, activation/deactivation codes, executing platform, and state associated with IN (Intelligent Network) services.

Category: Call Control **Security:** SA for ED, View for RTRV

Input Formats:

```
ED-SERVICE-ACCESSCODE:[TID]:<serviceId>:[CTAG]::
   [DESC=<descr>],[ACTIVATIONCODE=<activationCode>],
   [DEACTIVATIONCODE=<deactivationCode>],
   [SLHRID=<slhrid>]:[<pst>];

RTRV-SERVICE-ACCESSCODE:[TID]:[<serviceId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<serviceId>:[DESC=<descr>],
      [ACTIVATIONCODE=<activationCode>],
      [DEACTIVATIONCODE=<deactivationCode>],
      DESTINATION=<destination>:<pst>"
;
```

Parameters:

serviceId Identifies the AID as a type of IN service. Standard (factory default) activation and deactivation codes are shown parenthetically. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all services configured in the system will be returned.

Type: ServiceId

Range: ACB = Automatic Call Back (Activation Code = 66, Deactivation Code = 86)
ACR = Anonymous Call Rejection (Activation Code = 77, Deactivation Code = 87)
AIN_TOLLFREE = Advanced Intelligent Network tollfree – tollfree calls resolved in the INAP layer of SS7 (Activation Code = NULL, Deactivation Code = NULL)
AR = Automatic Recall (Activation Code = 69, Deactivation Code = 89)
AUTHCODE = outgoing calls require Authorization Code (Activation Code = NULL, Deactivation Code = NULL)
B911 = Basic 911 (Activation Code = NULL, Deactivation Code = NULL)
BLV = Busy Line Verification (Activation Code = NULL, Deactivation Code = NULL)
CFBL = Call Forwarding on Busy Line (Activation Code = NULL, Deactivation Code = NULL)
CFDA = Call Forwarding on No Answer (Activation Code = NULL, Deactivation Code = NULL)
CFV = Call Forwarding Variable (Activation Code = 72, Deactivation Code = 73)
CID = Calling Identity Delivery (Activation Code = 61, Deactivation Code = NULL)
CIDCW = Call ID on Call Waiting (Activation Code = NULL, Deactivation Code = NULL)
CIS = Calling Identity Suppression (Activation Code = NULL, Deactivation Code = NULL)
CNAB = Calling Name delivery Blocking (Activation Code = NULL, Deactivation Code = NULL)
CNAM = Caller Name display – Caller ID (Activation Code = NULL, Deactivation Code = NULL)
CND = Calling Number Delivery (Activation Code = NULL, Deactivation Code = NULL)
CNDB = Calling Number Delivery Blocking (Activation Code = 67, Deactivation Code = NULL)
COT = Customer Originated Trace (Activation Code = 57, Deactivation Code = NULL)

CRDPCL = Code Restriction/Diversion Prohibited Code List – block originating calls to specified screen digits (Activation Code = NULL, Deactivation Code = NULL)
CWC = Cancel Call Waiting (Activation Code = 70, Deactivation Code = NULL)
CWT = Call Waiting (Activation Code = NULL, Deactivation Code = NULL)
GMSC_IS41 = Gateway MSC, ANSI IS41 based (Activation Code = NULL, Deactivation Code = NULL)
GMSC_MAP = Gateway MSC, GSM MAP based (Activation Code = NULL, Deactivation Code = NULL)
HI = Home Intercom, or "Barn Phone" (Activation Code = NULL, Deactivation Code = NULL)
HOTLN = Hot Line (Activation Code = NULL, Deactivation Code = NULL)
LNP = Local Number Portability (Activation Code = NULL, Deactivation Code = NULL)
MWC = Multi-Way Calling – Call Transfer (Activation Code = NULL, Deactivation Code = NULL)
RAF = Remote Access to Features (Activation Code = NULL, Deactivation Code = NULL)
RDAS = Residence Distinctive Alerting Service (Activation Code = NULL, Deactivation Code = NULL)
RLT = Release Link Trunk (Activation Code = NULL, Deactivation Code = NULL)
SC1 = Speed-dialing with one-digit speedcode (Activation Code = 74, Deactivation Code = NULL)
SC2 = Speed-dialing with two-digit speedcode (Activation Code = 75, Deactivation Code = NULL)
SCA = Selective Call Acceptance (Activation Code = NULL, Deactivation Code = NULL)
SCF = Selective Call Forwarding (Activation Code = NULL, Deactivation Code = NULL)
SCR = Selective Call Rejection (Activation Code = NULL, Deactivation Code = NULL)
TOLLFREE = Tollfree (Activation Code = NULL, Deactivation Code = NULL)
TWC = Three-Way Calling (Activation Code = NULL, Deactivation Code = NULL)
VMS = Voice Mail System (Activation Code = NULL, Deactivation Code = NULL)
WARMLN = Warm Line (Activation Code = NULL, Deactivation Code = NULL)

Default value: none

descr Identifies the description of the service. The factory default is "NULL".

Type: string
Range: up to 50 ASCII characters
Default value: not applicable

activationCode Identifies the code to dial to activate the service. The codes to activate and deactivate a service must differ and cannot be the same as codes for other services. The factory default is "NULL".

Type: string
Range: {02-99, 200-999}
Default value: not applicable

deactivationCode Identifies the code to dial to deactivate the service. The codes to activate and deactivate a service must differ and cannot be the same as codes for other services. The factory default is "NULL".

Type: string
Range: {02-99, 200-999}
Default value: not applicable

slhrId Identifies the service logic host route to the Service Control Point (SCP) providing the service. The factory default is "NULL".

Type: enum
Range: {0-31}
Default value: not applicable

pst Indicates whether the service is available at the switch level. A null value means no change to the current value. The factory default is "IS".

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: not applicable

Input Examples:

```
ED-SERVICE-ACCESSCODE::CFV:::DESC=CFV_SERVICE,
  ACTIVATIONCODE=72,DEACTIVATIONCODE=73,SLHRID=NULL:
  IS;
RTRV-SERVICE-ACCESSCODE::CFV;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "CFV:DESC=CFV_SERVICE,ACTIVATIONCODE=72,
      DEACTIVATIONCODE=73,SLHRID=NULL:IS"
;
```

Related Commands: none

RTRV-SUB-CFV

Command:

RTRV-SUB-CFV: Retrieve Subscriber CFV

Description:

RTRV-SUB-CFV lets the user retrieve the Call Forwarding – Variable (CFV) status information for the identified subscriber.

Category: Call Control **Security:** View

Input Format:

```
RTRV-SUB-CFV:[TID]:<subscriberId>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<subscriberid>:CFACTIVE=<cfactive>,[CFDN=<cfdn>],
      [LASTUPDTTIME=<lastupdttime>["
;
```

Parameters:

subscriberID Identifies the subscriber.

Type: string
Range: exactly 10 digits
Default value: none

cfactive Identifies whether call forwarding is active.

Type: enum
Range: ACTIVE = call forwarding is active
INACTIVE = call forwarding is not active
TEMPACTIVE = call forwarding is temporarily active
Default value: none

cfdn Identifies the number to which calls are forwarded.

Type: string
Range: up to 21 digits
Default value: none

lastupdttime Identifies the date and time the status of call forwarding last changed for the identified subscriber.

Type: string
Range: alphanumeric characters
Default value: none

Input Example:

```
RTRV-SUB-CFV::5088048202;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "5088048202:CFACTIVE=INACTIVE,CFDN=NULL,
      LASTUPDTTIME="\MON NOV 10 11 34 56 EDT 2003\""
;
```

Related Commands: none

RTRV-SUB-COT

Command:

RTRV-SUB-COT: Retrieve Subscriber COT

Description:

RTRV-SUB-COT lets the user retrieve the Customer Originated Trace (COT) for the identified subscriber.

Category: Call Control **Security:** View

Input Format:

```
RTRV-SUB-COT:[TID]:<subscriberId>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<subscriberid>:ACTIVATIONTIME=<activationTime>,
      TRACEDN=<traceDN>,TRACETIME=<traceTime>"
;
```

Parameters:

subscriberID Identifies the subscriber.

Type: string
Range: exactly 10 digits
Default value: none

activationTime Identifies the date/time stamp the COT was activated.

Type: string
Range: alphanumeric characters
Default value: none

traceDN Identifies the calling party number being traced.

Type: string
Range: up to 21 digits
Default value: none

traceTime Identifies the registration time for the COT.

Type: string
Range: alphanumeric characters
Default value: none

Input Example:

```
RTRV-SUB-COT::5088048202;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "5088048202:ACTIVATIONTIME="\MON NOV 04 10 34 56
      EDT 2003\",TRACEDN="\5088048788\",TRACETIME="\
      MON NOV 04 11 34 56 EDT 2003\""
;
```

Related Commands: none

DLT/ED/ENT/RTRV-CAS-IF

Commands:

DLT-CAS-IF: Delete CAS Interface

ED-CAS-IF: Edit CAS Interface

ENT-CAS-IF: Enter CAS Interface

RTRV-CAS-IF: Retrieve CAS Interface

Descriptions:

DLT-CAS-IF lets the user delete a CAS (Channel-Associated Signaling) interface.

ED-CAS-IF lets the user edit the parameters associated with a CAS (Channel-Associated Signaling) interface.

ENT-CAS-IF lets the user establish a CAS (Channel-Associated Signaling) interface. ENT-CAS-IF will not work correctly unless ENT-PRFL-CAS has already been issued.

RTRV-CAS-IF lets the user retrieve parameters associated with a CAS (Channel-Associated Signaling) interface.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-CAS-IF:[TID]:<casIfId>:[CTAG];
```

```
ED-CAS-IF:[TID]:<casIfId>:[CTAG]::
   [CASPRFLID=<casPrflId>],[ALLOC=<allocMethod>],
   [NAME=<name>],[ECHOCTRL=<echoCtrl>],
   [LONGDELAY=<longDelay>],[CUSTVAR1=<custVar1>],
   [CUSTVAR2=<custVar2>],[CUSTVAR3=<custVar3>],
   [CUSTVAR4=<custVar4>],[CUSTVAR5=<custVar5>]:
   [<pst>];
```

```
ENT-CAS-IF:[TID]:<casIfId>:[CTAG]::
   CASPRFLID=<casPrflId>,[ALLOC=<allocMethod>],
   [NAME=<name>],[ECHOCTRL=<echoCtrl>],
   [LONGDELAY=<longDelay>],[CUSTVAR1=<custVar1>],
   [CUSTVAR2=<custVar2>],[CUSTVAR3=<custVar3>],
   [CUSTVAR4=<custVar4>],[CUSTVAR5=<custVar5>]:
   [<pst>];
RTRV-CAS-IF:[TID]:[<casIfId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<casIfId>:CASPRFLID=<casPrflId>,
      ALLOC=<allocMethod>,NAME=<name>,
      ECHOCTRL=<echoCtrl>,LONGDELAY=<longDelay>,
      CUSTUSE1=<custUse1>,CUSTVAR1=<custVar1>,
      CUSTUSE2=<custUse2>,CUSTVAR2=<custVar2>,
      CUSTUSE3=<custUse3>,CUSTVAR3=<custVar3>,
      CUSTUSE4=<custUse4>,CUSTVAR4=<custVar4>,
      CUSTUSE5=<custUse5>,CUSTVAR5=<custVar5>:<pst>,
      <sst>"
;
```

Parameters:

casIfId Identifies the AID as a CAS interface. A null value (in RTRV) is equivalent to “ALL”; that is, by leaving the field blank, parameters will be returned for all CAS interfaces configured in the system.

Type: CasIfId
Range: {1-2147483645}
Default value: none

casPrflId Identifies the CAS profile applied to the interface.

Type: integer
Range: {1-128}
Default value: none

allocMethod Indicates the resource allocation method (hunting type) for selecting trunks on the interface.

Type: enum
Range: CIRCULAR = Allocates the next free channel, in ascending order, following the last channel selected.
HIGHEST_AVAIL = Selects the highest available channel
LOWEST_AVAIL = Selects the lowest available channel
RANDOM = Allocates the next free channel, in ascending order, based on a random entry into a numbered list of resources. After the first allocation from that numbered list of resources, subsequent attempts to find a free resource use the circular method.
Default value: NULL

name Identifies the name of the CAS interface

Type: string
Range: up to 20 ASCII characters
Default value: NULL

echoCtrl Identifies the amount, in milliseconds, of echo cancellation for outgoing calls.

Type: integer
Range: {0-128}
Default value: 32

longDelay Identifies whether echo cancellation processing is required because of a long delay (echo tail).

Type: BoolYN
Range: N = echo processing is off (for short-haul; i.e., less than 15 msec propagation delay)
Y = echo processing is on (for long-haul)
Default value: N

custUse1 Identifies (in RTRV output) the use for custom variable 1.

Type: string
Range: up to 32 characters
Default value: NULL

custVar1 Identifies the value of custom variable 1.

Type: string
Range: up to 16 characters
Default value: NULL

custUse2 Identifies (in RTRV output) the use for custom variable 2.

Type: string
Range: up to 32 characters
Default value: NULL

custVar2 Identifies the value of custom variable 2.

Type: string
Range: up to 16 characters
Default value: NULL

custUse3 Identifies (in RTRV output) the use for custom variable 3.

Type: string
Range: up to 32 characters
Default value: NULL

custVar3 Identifies the value of custom variable 3.

Type: string
Range: up to 16 characters
Default value: NULL

custUse4 Identifies (in RTRV output) the use for custom variable 4.

Type: string
Range: up to 32 characters
Default value: NULL

custVar4 Identifies the value of custom variable 4.

Type: string
Range: up to 16 characters
Default value: NULL

custUse5 Identifies (in RTRV output) the use for custom variable 5.

Type: string
Range: up to 32 characters
Default value: NULL

custVar5 Identifies the value of custom variable 5.

Type: string
Range: up to 16 characters
Default value: NULL

pst Indicates the desired primary state of the CAS interface. A null value means no change to the current value.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: IS

sst Identifies (in RTRV output) the secondary state of the CAS interface.

Type: enum
Range: ACT = Active
AINS = Automatic, In-service
FAF = Facilities Failure
FLT = Faulted
INIT = Initializing
LPBK = Loopback
MEA = Mismatch of Equipment and Attributes
MON = Monitor
NBK = No Backup
PRI = Protection Release Inhibited
PSI = Protection Switch Inhibited
RWT = Remove Wait state
SGEO = Supporting Entity Outage
STBYC = Standby Cold
STBYH = Standby Hot
UAS = Unassigned
UEQ = Unequipped
WRK = Working
Default value: none

Input Examples:

```
DLT-CAS-IF::1;

ED-CAS-IF::1:::PROFILE=1,ALLOC=NULL,NAME=CASIF1,
   ECHOCTRL=32,LONGDELAY=N,CUSTVAR1=NULL,
   CUSTVAR2=NULL,CUSTVAR3=NULL,CUSTVAR4=NULL,
   CUSTVAR5=NULL:IS;

ENT-CAS-IF::1:::PROFILE=1,ALLOC=NULL,NAME=CASIF1,
   ECHOCTRL=32,LONGDELAY=N,CUSTVAR1=NULL,
   CUSTVAR2=NULL,CUSTVAR3=NULL,CUSTVAR4=NULL,
   CUSTVAR5=NULL:IS;

RTRV-CAS-IF::1;
```

Output Example:

```
   lucent 2005-06-27 14:37:49
M  0 COMPLD
   "1:CASPRFLID=1,ALLOC=NULL,NAME=CASIF1,ECHOCTRL=32,
      LONGDELAY=N,CUSTUSE1=NULL,CUSTVAR1=NULL,
      CUSTUSE2=NULL,CUSTVAR2=NULL,CUSTUSE3=NULL,
      CUSTVAR3=NULL,CUSTUSE4=NULL,CUSTVAR4=NULL,
      CUSTUSE5=NULL,CUSTVAR5=NULL:IS,ACT"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-CAS-LINE

Commands:

DLT-CAS-LINE: Delete CAS Line

ED-CAS-LINE: Edit CAS Line

ENT-CAS-LINE: Enter CAS Line

RTRV-CAS-LINE: Retrieve CAS Line

Descriptions:

DLT-CAS-LINE lets the user delete a DS0 channel used for CAS (Channel-Associated Signaling).

ED-CAS-LINE lets the user change the parameters associated with a DS0 channel used for CAS (Channel-Associated Signaling).

ENT-CAS-LINE lets the user associate a DS0 channel with a CAS (Channel-Associated Signaling) interface. ENT-CAS-LINE will not work correctly unless the following commands have already been issued in the listed order: ENT-T1, ENT-PRFL-CAS, and ENT-CAS-IF.

RTRV-CAS-LINE lets the user retrieve parameters associated with a CAS (Channel-Associated Signaling) line; i.e., a DS0 channel on a CAS interface.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-CAS-LINE:[TID]:<casLineAid>:[CTAG];
ED-CAS-LINE:[TID]:<casLineAid>:[CTAG]::[NAME=<name>]:
   [<pst>];
ENT-CAS-LINE:[TID]:<casLineAid>:[CTAG]::<casIfId>:
   [NAME=<name>]:[<pst>];
RTRV-CAS-LINE:[TID]:[<casLineAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<casLineAid>:CASIFID=<casIfId>:NAME=<name>:<pst>,
      <sst>"
;
```

Parameters:

casLineAid Identifies the AID as a DS0 channel used for CAS. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, parameters will be returned for all CAS lines configured in the system. A null value for the second, third, or fourth parts of the AID (in RTRV) is equivalent to "ALL"; that is, by leaving a field blank, parameters will be returned for all channels on a port or all ports on an IOM.

Type: T0
Range: IOM-{1-17}[-PORT-{1-28}[-T0-{1-24}]] = a channel on a T1 port on a DS1 I/O module
IOM-{1-17}[-STS1-{1-8}[-PORT-{1-28}[-T0-{1-24}]]] = a channel on a T1 port on an STS1 I/O module
IOM-{1-17}[-T3-{1-8}[-PORT-{1-28}[-T0-{1-24}]]] = a channel on a T1 port on a DS3 I/O module
Default value: none

casIfId Identifies the CAS interface to associate with the DS0 channel.

Type: integer
Range: {1-2147483645}
Default value: none

name Identifies the name of the CAS line.

Type: string
Range: up to eight ASCII characters
Default value: null

pst Indicates the desired primary state of the CAS line. A null value means no change to the current value.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: IS

sst Identifies (in RTRV output) the secondary state of the CAS line.

Type: enum
Range: ACT = Active
AINS = Automatic, In-service
FAF = Facilities Failure
FLT = Faulted
INIT = Initializing
LPBK = Loopback
MEA = Mismatch of Equipment and Attributes
MON = Monitor
NBK = No Backup
PRI = Protection Release Inhibited
PSI = Protection Switch Inhibited
RWT = Remove Wait state
SGEO = Supporting Entity Outage
STBYC = Standby Cold
STBYH = Standby Hot
UAS = Unassigned
UEQ = Unequipped
WRK = Working
Default value: none

Input Examples:

```
DLT-CAS-LINE::IOM-1-PORT-2-T0-24;
ED-CAS-LINE::IOM-1-PORT-2-T0-24:::NAME=CAS1:IS;
ENT-CAS-LINE::IOM-1-PORT-2-T0-24:::1:NAME=CAS1:IS;
RTRV-CAS-LINE::IOM-1-PORT-2-T0-24;
```

Output Example:

```
   lucent 2005-06-27 14:37:49
M  0 COMPLD
   "IOM-1-PORT-2-T0-24:CASIFID=1:NAME=CASIF1:IS,ACT"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-PRFL-CAS

Commands:

DLT-PRFL-CAS: Delete Profile CAS

ED-PRFL-CAS: Edit Profile CAS

ENT-PRFL-CAS: Enter Profile CAS

RTRV-PRFL-CAS: Retrieve Profile CAS

Descriptions:

DLT-PRFL-CAS lets the user delete a CAS (Channel-Associated Signaling) profile.

ED-PRFL-CAS lets the user change the parameters associated with a CAS (Channel-Associated Signaling) profile.

ENT-PRFL-CAS lets the user establish a CAS (Channel-Associated Signaling) profile. CAS profile parameter values conform to the following matrix of allowable combinations:

callModel	***sigModel***	***cntrlng***	***toneType***	***rxAddrInfo***	**Delimiters**
SUBSCRIBER_LINE	E_M E_M_IMM_DIAL GR303_GROUND_START GR303_LOOP_START GROUND_START GS_FWD_DISC LOOP_START LS_FWD_DISC	N (default) *Glare handling does not apply to subscriber lines*	DTMF *DTMF and DP receivers are placed on the call for all subscriber calls*	CD (default) *Subscriber lines do not send address info*	NONE *Called and calling party number are not sent to subscribers using DTMF digits*
CD_TRUNK CDCG_TRUNK CGCD_TRUNK MG_TRUNK	E_M E_M_IMM_DIAL	Y, N	DTMF	CD CDCG CGCD	ASTERIK FIRST_ASTERISK NONE POUND *All leading and trailing delimiters are valid*
CD_TRUNK CDCG_TRUNK CGCD_TRUNK MG_TRUNK	E_M E_M_IMM_DIAL	Y, N	MFR1	CD CDCG CGCD	NONE *Assuming KP is leading delimiter and ST is trailing delimiter*
B911_TRUNK EO_OPS_TRUNK EO_OPS_TRUNK_V2	E_M	N (default) *parameter is N/A*	MFR1	CD (default) *parameter is N/A*	NONE
FGD	E_M	Y, N	MFR1	CD (default) *parameter is N/A*	NONE

Note that setting the value of *callModel* to “SUBSCRIBER_LINE” and the value of *sigModel* to “E_M” provides a secondary dial tone to the subscriber from the switch when connected to customer-premise equipment.

RTRV-PRFL-CAS lets the user retrieve a CAS (Channel-Associated Signaling) profile.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-PRFL-CAS:[TID]:<casPrflId>:[CTAG];

ED-PRFL-CAS:[TID]:<casPrflId>:[CTAG]::
   [CNTRLNG=<cntrlng>],[TONETYPE=<toneType>],
   [RXADDRINFO=<rxAddrInfo>],[TXLEADDLM=<txLeadDlm>],
   [TXTRAILDLM=<txTrailDlm>],[RXLEADDLM=<rxLeadDlm>],
   [RXTRAILDLM=<rxTrailDlm>],
   [TONEDURATION=<toneDuration>],
   [PAUSEDURATION=<pauseDuration>],
   [SEIZEWINKDELAY=<seizeWinkDelay>],
   [OUTPULSEDELAY=<outPulseDelay>],
   [CONFONHOOK=<confOnHook>],
   [CONFOFFHOOK=<confOffhook>],[GUARDTMR=<guardTmr>],
   [WINKDURATION=<winkDuration>],
   [FWDDISCTIME=<fwdDiscTime>],[KPMODE=<kpMode>],
   [TDGTFIRST=<tDgtFirst>],[TDGTSHORT=<tDgtShort>],
   [TDGTLONG=<tDgtLong>],
   [ORIGONHOOKSIG=<origOnhookSig>];

ENT-PRFL-CAS:[TID]:<casPrflId>:[CTAG]::
   [CALLMODEL=<callModel>],[SIGMODEL=<sigModel>],
   [CNTRLNG=<cntrlng>],[TONETYPE=<toneType>],
   [RXADDRINFO=<rxAddrInfo>],[TXLEADDLM=<txLeadDlm>],
   [TXTRAILDLM=<txTrailDlm>],[RXLEADDLM=<rxLeadDlm>],
   [RXTRAILDLM=<rxTrailDlm>],
   [TONEDURATION=<toneDuration>],
   [PAUSEDURATION=<pauseDuration>],
   [SEIZEWINKDELAY=<seizeWinkDelay>],
   [OUTPULSEDELAY=<outPulseDelay>],
   [CONFONHOOK=<confOnHook>],
   [CONFOFFHOOK=<confOffhook>],[GUARDTMR=<guardTmr>],
   [WINKDURATION=<winkDuration>],
   [FWDDISCTIME=<fwdDiscTime>],[KPMODE=<kpMode>],
   [TDGTFIRST=<tDgtFirst>],[TDGTSHORT=<tDgtShort>],
   [TDGTLONG=<tDgtLong>],
   [ORIGONHOOKSIG=<origOnhookSig>];

RTRV-PRFL-CAS:[TID]:[<casPrflId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<casPrflId>:CALLMODEL=<callModel>,
      SIGMODEL=<sigModel>,CNTRLNG=<cntrlng>,
      TONETYPE=<toneType>,RXADDRINFO=<rxAddrInfo>,
      TXLEADDLM=<txLeadDlm>,TXTRAILDLM=<txTrailDlm>,
      RXLEADDLM=<rxLeadDlm>,RXTRAILDLM=<rxTrailDlm>,
      TONEDURATION=<toneDuration>,
      PAUSEDURATION=<pauseDuration>,
      SEIZEWINKDELAY=<seizeWinkDelay>,
      OUTPULSEDELAY=<outPulseDelay>,
      CONFONHOOK=<confOnHook>,
      CONFOFFHOOK=<confOffHook>,
      GUARDTMR=<guardTmr>,WINKDURATION=<winkDuration>,
      FWDDISCTIME=<fwdDiscTime>,KPMODE=<kpMode>,
      TDGTFIRST=<tDgtFirst>,TDGTSHORT=<tDgtShort>,
      TDGTLONG=<tDgtLong>,
      ORIGONHOOKSIG=<origOnhookSig>"
;
```

Parameters:

casPrflId Identifies the AID as a CAS profile. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the system returns parameter values for all configured CAS profiles.

Type: casPrflId
Range: {1-128}
Default value: none

callModel Identifies the robbed-bit CAS call model.

Type: enum
Range: B911_TRUNK = trunk model, 911 calls
CD_TRUNK = trunk model, called party
CDCG_TRUNK = trunk model, called party to calling party; that is, the CDPN is sent before the CGPN
CGCD_TRUNK = trunk model, calling party to called party; that is, the CGPN is sent before the CDPN
EO_OPS_TRUNK = trunk model, End Office to Operator Services Position Trunk (N11 calls)
EO_OPS_TRUNK_V2 = trunk model, End Office to Operator Services Position Trunk (N11 calls), Version 2
FGD = Feature Group D
MG_TRUNK = trunk model, media gateway
SUBSCRIBER_LINE = line model
Default value: SUBSCRIBER_LINE

sigModel Identifies the format for robbed-bit CAS signaling.

Type: enum
Range: E_M = Receive and Transmit (E & M derives from the Latin phrase “Excipere and Mittere”, or, colloquially, “Ear and Mouth”)
E_M_IMM_DIAL = Receive and Transmit – Immediate Dial address control signaling on CAS trunks
GR303_GROUND_START = GR303 ground start
GROUND_START = ground start
GR303_LOOP_START = GR303 loop start
GS_FWD_DISC = ground start when connected to a PBX
LOOP_START = loop start
LS_FWD_DISC = loop start when connected to a PBX
Default value: E_M

cntrlng Identifies whether controlling GLARE resolution for release is enabled.

Type: BoolYN
Range: N = non-controlling
Y = controlling
Default value: N

toneType Identifies the type of in-band tone used for communicating digits in channel-associated signaling.

Type: enum
Range: DP = Dial Pulse
DTMF = dual-tone multi-frequency (as used on PBXs)
MFR1 = Multi-Frequency R1 for North America
Default value: DTMF

rxAddrInfo Identifies the received address information; that is, the order and type of addressing information to be received on an incoming trunk. Primarily used with PBXs that expect to receive one set of information but send different information. PBXs need not use delimiters when the value of *rxAddrInfo* is "CD".

Type: enum
Range: CD = called party
CDCG = called party to calling party; that is, the CDPN is received before the CGPN
CGCD = calling party to called party; that is, the CGPN is received before the CDPN
Default value: CD

txLeadDlm Identifies the transmitted leading DTMF delimiter, which indicates the beginning of each digit (or the entire set of digits) in the called or calling number sent. Although the default value is "NONE", you must specify a value of "ASTERISK", "FIRST_ASTERISK", or "POUND" when the value of *callModel* is "CD_TRUNK", "CDCG_TRUNK", or "CGCD_TRUNK", and the value of *toneType* is "DTMF".

Type: enum
Range: ASTERISK = the asterisk (*) key precedes each digit
FIRST_ASTERISK = the asterisk (*) key precedes the entire called or calling number sent
NONE = no delimiter
POUND = the pound (#) key precedes each digit
Default value: NONE

txTrailDlm Identifies the transmitted trailing DTMF delimiter, which indicates the end of the called or calling number sent. Although the default value is "NONE", you must specify a value of "ASTERISK" or "POUND" when the value of *callModel* is "CD_TRUNK", "CDCG_TRUNK", or "CGCD_TRUNK", and the value of *toneType* is "DTMF". You must specify a value of "ASTERISK" when the value of *txLeadDlm* is "FIRST_ASTERISK".

Type: enum
Range: ASTERISK = the asterisk (*) key
NONE = no delimiter
POUND = the pound (#) key
Default value: NONE

rxLeadDlm Identifies the received leading DTMF delimiter, which indicates the beginning of each digit (or the entire set of digits) in the called or calling number received. Although the default value is "NONE", you must specify a value of "ASTERISK", "FIRST_ASTERISK", or "POUND" when the value of *callModel* is "CD_TRUNK", "CDCG_TRUNK", or "CGCD_TRUNK", and the value of *toneType* is "DTMF". You cannot specify a value of "FIRST_ASTERISK" when the value of *callModel* is "CD_TRUNK" or "MG_TRUNK". You must specify a value of "FIRST_ASTERISK" when the value of *txLeadDlm* is "FIRST_ASTERISK".

Type: enum
Range: ASTERISK = the asterisk (*) key precedes each digit
FIRST_ASTERISK = the asterisk (*) key precedes the entire called or calling number received
NONE = no delimiter
POUND = the pound (#) key precedes each digit
Default value: NONE

rxTrailDlm Identifies the received trailing DTMF delimiter, which indicates the end of the called or calling number received. Although the default value is "NONE", you must specify a value of "ASTERISK" or "POUND" when the value of *callModel* is "CD_TRUNK", "CDCG_TRUNK", or "CGCD_TRUNK", and the value of *toneType* is "DTMF". You must specify a value of "ASTERISK" when the value of *rxLeadDlm* is "FIRST_ASTERISK".

Type: enum
Range: ASTERISK = the asterisk (*) key
NONE = no delimiter
POUND = the pound (#) key
Default value: NONE

toneDuration Identifies the duration, in milliseconds, for an out-pulsed digit.

Type: integer
Range: {0-120}
Default value: 65

pauseDuration Identifies the duration, in milliseconds, for the time allowed between dialed digits for outgoing interfaces.

Type: integer
Range: {0-120}
Default value: 65

seizeWinkDelay Identifies the duration, in milliseconds, that the switch waits for a WINK signal after seizing an outbound trunk.

Type: integer
Range: {0-4000}
Default value: 4000

outPulseDelay Identifies the delay, in milliseconds, before out-pulsing digits (MF/DTMF) after seizing an outbound trunk. When the value of *sigModel* is "E_M_IMM_DIAL", set *outPulseDelay* higher than the default value so that the far end switch has time to enable its digit-collecting process.

Type: integer
Range: {0-6000}
Default value: 50

confOnHook Identifies the duration, in milliseconds, that a trunk with this profile must be on-hook before it can be declared on-hook.

Type: integer
Range: {0-6000}
Default value: 1100

confOffHook Identifies the duration, in milliseconds, that a trunk with this profile must be off-hook before it can be declared as answered.

Type: integer
Range: {210-6000}
Default value: 350

guardTmr Identifies the guard timer value in milliseconds; that is, the duration after a disconnect or on-hook before the trunk is available for next use.

Type: integer
Range: {100-6000}, in 100 msec increments
Default value: 1000

winkDuration Identifies the duration, in milliseconds, for a WINK signal. This parameter only applies when the value for *sigModel* is "E_M".

Type: integer
Range: {0-300}
Default value: 100

fwdDiscTime Identifies the duration, in milliseconds, that the switch maintains LCFO on a disconnecting line/trunk. This parameter only applies when the value for *sigModel* is "LS_FWD_DISC".

Type: integer
Range: {0-6000}
Default value: 1500

kpMode Identifies, for Feature Group D calls (that is, when the value of *callModel* is "FGD") and per GR-690, R3-50, the type of information sent to the remote switch that determines how to interpret the variations of the Key Pulse signal (KP, KP', KP'', KP"') in the second stage of MF outpulsing when ANI is not provided.

Type: enum
Range: BOTH = Remote switch requests both dialing method information and presubscription information; that is, whether the call is effected via the subscriber's chosen carrier or via casual (10-10-) dialing (KP = dial pulse dialing and carrier designated, KP' = dial pulse dialing and carrier not designated or undetermined, KP" = DTMF dialing and carrier designated, KP"' = DTMF dialing and carrier not designated or undetermined)
DIALMETHOD = Remote switch requests only dialing method information (KP = dial pulse, KP" = DTMF)
NONE = Remote switch requests neither dialing method nor presubscription information
PRESUBSCRIBED = Remote switch requests only presubscription information; that is, whether the call is effected via the subscriber's chosen carrier or via casual (10-10-) dialing (KP = carrier designated, KP' = carrier not designated or undetermined)
Default value: NONE

tDgtFirst Identifies the duration, in milliseconds (1000 msec increments), that the switch waits for first digit to be dialed before giving up and playing an announcement.

Type: integer
Range: {5000-40000}
Default value: 9000

tDgtShort Identifies the duration, in milliseconds (1000 msec increments), that the switch waits after finding a partial match between the dialed digits and the requested digit-map, before ending digit collection and acting upon the partially-matched dialed digits.

Type: integer
Range: {1000-2000}
Default value: 2000

tDgtLong Identifies the duration, in milliseconds (1000 msec increments), that the switch waits after a digit has been collected, before ending digit collection – regardless of any matching with the requested digit-map. The default of 2000 applies generally to trunk-based call models; use a higher value, typically 9000, when the value of *callModel* is "SUBSCRIBER_LINE"

Type: integer
Range: {1000-9000}
Default value: 2000

origOnhookSig Identifies the signal sent when the originator of a 911 call disconnects. This parameter is valid only when the value of *callModel* is "B911_TRUNK".

Type: enum
Range: LOW
NONE
Default value: NONE

Input Examples:

```
DLT-PRFL-CAS::1;

ED-PRFL-CAS::1:::CNTRLNG=N,TONETYPE=DTMF,
   RXADDRINFO=CD,TXLEADDLM=NONE,TXTRAILDLM=NONE,
   RXLEADDLM=NONE,RXTRAILDLM=NONE,TONEDURATION=65,
   PAUSEDURATION=65,TONEDURATION=65,XOUTPULSEDELAY=50,
   CONFONHOOK=1100,CONFOFFHOOK=100,GUARDTMR=1000,
   WINKDURATION=100,FWDDISCTIME=1500,KPMODE=NONE,
   TDGTFIRST=9000,TDGTSHORT=2000,TDGTLONG=9000,
   ORIGONHOOKSIG=NONE;
```

```
ENT-PRFL-CAS::1:::CALLMODEL=SUBSCRIBER_LINE,
   SIGMODEL=E_M,CNTRLNG=N,TONETYPE=DTMF,RXADDRINFO=CD,
   TXLEADDLM=NONE,TXTRAILDLM=NONE,RXLEADDLM=NONE,
   RXTRAILDLM=NONE,TONEDURATION=65,PAUSEDURATION=65,
   SEIZEWINKDELAY=4000,OUTPULSEDELAY=50,
   CONFONHOOK=1100,CONFOFFHOOK=350,GUARDTMR=1000,
   WINKDURATION=100,FWDDISCTIME=1500,KPMODE=NONE,
   TDGTFIRST=9000,TDGTSHORT=2000,TDGTLONG=9000,
   ORIGONHOOKSIG=NONE;

RTRV-PRFL-CAS::1;
```

Output Example:

```
   lucent 2005-06-27 14:37:49
M  0 COMPLD
   "1:CALLMODEL=SUBSCRIBER_LINE,SIGMODEL=E_M,
      CNTRLNG=N,TONETYPE=DTMF,RXADDRINFO=CD,
      TXLEADDLM=NONE,TXTRAILDLM=NONE,RXLEADDLM=NONE,
      RXTRAILDLM=NONE,TONEDURATION=65,
      PAUSEDURATION=65,SEIZEWINKDELAY=4000,
      OUTPULSEDELAY=50,CONFONHOOK=1100,
      CONFOFFHOOK=100,GUARDTMR=1000,WINKDURATION=100,
      FWDDISCTIME=1500,KPMODE=NONE,TDGTFIRST=9000,
      TDGTSHORT=2000,TDGTLONG=9000,ORIGONHOOKSIG=NONE"
;
```

Related Commands: none

NOTES

DLT/ED/ENT/RTRV-GR303-CRV

Commands:

DLT-GR303-CRV: Delete GR303 CRV

ED-GR303-CRV: Edit GR303 CRV

ENT-GR303-CRV: Enter GR303 CRV

RTRV-GR303-CRV: Retrieve GR303 CRV

Descriptions:

DLT-GR303-CRV lets the user delete a GR303 Call Reference Value (subscriber line).

ED-GR303-CRV lets the user change the CAS profile and primary state, and whether the subscriber can be deleted, for a GR303 Call Reference Value (subscriber line).

ENT-GR303-CRV lets the user establish the CAS profile and primary state, and whether the subscriber can be deleted, for a GR303 Call Reference Value (subscriber line). ENT-GR303-CRV will not work unless the following commands have already been issued in the listed order: ENT-PRFL-CAS, ENT-SUB-IF, and ENT-GR303-IF.

RTRV-GR303-CRV lets the user retrieve parameters associated with a GR303 Call Reference Value (subscriber line).

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-GR303-CRV:[TID]:<crvId>:[CTAG];

ED-GR303-CRV:[TID]:<crvId>:[CTAG]::
   [CASPRFLID=<casPrflId>],[REDLINED=<redLined>]:
   [<pst>];

ENT-GR303-CRV:[TID]:<crvId>:[CTAG]::
   CASPRFLID=<casPrflId>,[REDLINED=<redLined>]:
   [<pst>];

RTRV-GR303-CRV:[TID]:<crvId>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<crvId>:CASPRFLID=<casPrflId>,REDLINED=<redLined>:
      <pst>,<sst>"
;
```

Parameters:

crvId Identifies the AID as a GR303 call reference value. The pattern is a combination of the interface group number, the call reference value, and the subscriber interface number.

Type: CrvAidGrp
Range: <ifGrpNum>-<crv>-<subIfId>, where
ifGrpNum = {1-32767}
crv = {1-2048}
subIfId = {1-32767}
Default value: none

casPrflId Identifies the CAS profile applied to the interface.

Type: enum
Range: {1-128}
Default value: none

redLined Identifies whether a GR303 subscriber can be deleted.

Type: BoolYN
Range: N = subscriber can not be deleted
Y = subscriber can be deleted
Default value: N

pst Identifies the primary state of the GR303 subscriber line. A null value means no change to the current value.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
OOS-AU = Out-Of-Service, Autonomous (output only)
OOS-AUMA = Out-Of-Service, Autonomous and Managed (output only)
OOS-MA = Out-Of-Service for Management (output only)
Default value: IS

sst Identifies (in RTRV output) the secondary state of the GR303 subscriber line.

Type: enum
Range: ACT = Active
FAF = Facilities Failure
SGEO = Supporting Entity Outage
SGEO_FAF = Supporting Entity Outage and Facilities Failure
Default value: none

Input Examples:

```
DLT-GR303-CRV::1-1-1;
ED-GR303-CRV::1-1-1:::CASPRFLID=1,REDLINED=N:IS;
ENT-GR303-CRV::1-1-1:::CASPRFLID=1,REDLINED=N:IS;
RTRV-GR303-CRV::1-1-1;
```

Output Example:

```
   telica 2005-05-15 14:37:49
M  0 COMPLD
   "1-1-1:CASPRFLID=1,REDLINED=N:IS,ACT"
;
```

Related Commands:

```
RTRV-STATUS-GR303CRV
```

DLT/ED/ENT/RTRV-GR303-IF

Commands:

DLT-GR303-IF: Delete GR303 Interface

ED-GR303-IF: Edit GR303 Interface

ENT-GR303-IF: Enter GR303 Interface

RTRV-GR303-IF: Retrieve GR303 Interface

Descriptions:

DLT-GR303-IF lets the user delete a GR303 interface group.

ED-GR303-IF lets the user modify the properties of a GR303 interface group.

ENT-GR303-IF lets the user establish a GR303 interface group.

RTRV-GR303-IF lets the user retrieve the properties of a GR303 interface group.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-GR303-IF:[TID]:<ifGrpNum>:[CTAG];
ED-GR303-IF:[TID]:<ifGrpNum>:[CTAG]::
   [SWCHTYPE=<swchtype>],[FLWTHR=<flwthr>],
   [ALLOC=<alloc>],[PPS=<pps>],[GRPNAME=<grpname>],
   [RDTVNDR=<rdtvndr>],[T303=<t303>],[T313=<t313>],
   [T396=<t396>],[DLSAP0WINSIZ=<dlsap0winsiz>],
   [DLSAP0N200=<dlsap0n200>],
   [DLSAP0T200=<dlsap0t200>],
   [DLSAP0T203=<dlsap0t203>],
   [DLSAP1WINSIZ=<dlsap1winsiz>],
   [DLSAP1N200=<dlsap1n200>],
   [DLSAP1T200=<dlsap1t200>],
   [DLSAP1T203=<dlsap1t203>]:[<pst>];
```

```
ENT-GR303-IF:[TID]:<ifGrpNum>:[CTAG]::
   [SWCHTYPE=<swchtype>],[FLWTHR=<flwthr>],
   [ALLOC=<alloc>],[PPS=<pps>],[GRPNAME=<grpname>],
   [RDTVNDR=<rdtvndr>],[T303=<t303>],[T313=<t313>],
   [T396=<t396>],[DLSAP0WINSIZ=<dlsap0winsiz>],
   [DLSAP0N200=<dlsap0n200>],
   [DLSAP0T200=<dlsap0t200>],
   [DLSAP0T203=<dlsap0t203>],
   [DLSAP1WINSIZ=<dlsap1winsiz>],
   [DLSAP1N200=<dlsap1n200>],
   [DLSAP1T200=<dlsap1t200>],
   [DLSAP1T203=<dlsap1t203>]:[<pst>];

RTRV-GR303-IF:[TID]:[<ifGrpNum>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<ifGrpNum>:SWCHTYPE=<swchtype>,FLWTHR=<flwthr>,
      ALLOC=<alloc>,PPS=<pps>,GRPNAME=<grpname>,
      RDTVNDR=<rdtvndr>,T303=<t303>,T313=<t313>,
      T396=<t396>,DLSAP0WINSIZ=<dlsap0winsiz>,
      DLSAP0N200=<dlsap0n200>,DLSAP0T200=<dlsap0t200>,
      DLSAP0T203=<dlsap0t203>,
      DLSAP1WINSIZ=<dlsap1winsiz>,
      DLSAP1N200=<dlsap1n200>,DLSAP1T200=<dlsap1t200>,
      DLSAP1T203=<dlsap1t203>:<pst>,<sst>"
;
```

Parameters:

ifGrpNum Identifies the AID as a GR303 interface group. A null value (in RTRV) is equivalent to “ALL”; that is, by leaving the field blank, parameters will be returned for all GR303 interface groups configured in the system.

Type: IfGrpNum
Range: {1-32767}
Default value: none

swchtype Identifies the switch type implemented in the IDT (Integrated Digital Terminal).

Type: enum
Range: CUSTOM
LUCENT
NORTEL
Default value: LUCENT

flwthr Identifies whether flow through provisioning is enabled on the interface group.

Type: BoolYN
Range: N = flow through provisioning is not enabled
Y = flow through provisioning is enabled
Default value: N

alloc Identifies the resource allocation method (hunting type) for the interface group.

Type: enum
Range: ASCENDING = Allocates the lowest numbered available channel in a numbered list of channels on the lowest numbered available link in a numbered list of links.
CIRCULAR = Allocates the next free channel, in ascending order, following the last channel selected.
DESCENDING = Allocates the highest numbered available channel in a numbered list of channels on the highest numbered available link in a numbered list of links.
RANDOM = Allocates the next free channel, in ascending order, based on a random entry into a numbered list of resources. After the first allocation from that numbered list of resources, subsequent attempts to find a free resource use the circular method.
Default value: CIRCULAR

pps Identifies whether path protection is inhibited for the interface group.

Type: BoolYN
Range: N = path protection is not inhibited
Y = path protection is inhibited
Default value: N

grpname Identifies the name of the GR303 interface group.

Type: string
Range: up to 20 alphanumeric characters (including underscores "_")
Default value: NULL

rdtvndr Identifies the vendor of the RDT (Remote Digital Terminal).

Type: string
Range: up to 20 alphanumeric characters (including underscores "_")
Default value: NULL

t303 Identifies the maximum time, in seconds (0.5 second increments), that the IDT and RDT will wait for a reply to a SETUP message.

Type: integer
Range: {0.7-4.7}
Default value: 0.7

t313 Identifies the maximum time, in seconds (0.1 second increments), that the IDT will wait for a reply to a CONNECT message that assigns a DS0 to the originating call.

Type: integer
Range: {0.4-4.0}
Default value: 0.4

t396 Identifies the maximum time, in seconds (1.0 second increments), that the switch will wait for a reply to a SETUP message following initial expiration of timer t303.

Type: integer
Range: {0.7-14.7}
Default value: 14.7

dlsap0winsiz Identifies the number of unacknowledged information frames to buffer on SAP0, the Service Access Point TMC (Timeslot Management Channel).

Type: integer
Range: {1-7}
Default value: 7

dlsap0n200 Identifies the maximum number of times a frame can be retransmitted on SAP0.

Type: integer
Range: {1-10}
Default value: 3

dlsap0t200 Identifies the maximum time, in seconds (0.05 second increments), that LAPD (Link Access Protocol - D Channel) waits for the receipt of an acknowledgement of a transmitted frame on SAP0.

Type: integer
Range: {0.1-0.35}
Default value: 0.35

dlsap0t203 Identifies the maximum time, in seconds (10 second increments), that the LAPD link can be IDLE on SAP0.

Type: integer
Range: {10-300}
Default value: 30

dlsap1winsiz Identifies the number of unacknowledged information frames to buffer on SAP1, the Service Access Point EOC (Embedded Operations Channel).

Type: integer
Range: {1-7}
Default value: 7

dlsap1n200 Identifies the maximum number of times a frame can be retransmitted on SAP1.

Type: integer
Range: {1-10}
Default value: 3

dlsap1t200 Identifies the maximum time, in seconds (0.05 second increments), that LAPD (Link Access Protocol - D Channel) waits for the receipt of an acknowledgement of a transmitted frame on SAP1.

Type: integer
Range: {0.1-0.35}
Default value: 0.35

dlsap1t203 Identifies the maximum time, in seconds (10 second increments), that the LAPD link can be IDLE on SAP1.

Type: integer
Range: {10-300}
Default value: 30

pst Indicates the primary state of the GR303 interface group. A null value means no change to the current value.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
OOS-AU = Out-Of-Service, Autonomous (output only)
OOS-AUMA = Out-Of-Service, Autonomous and Managed (output only)
OOS-MA = Out-Of-Service for Management (output only)
Default value: OOS

sst Identifies (in RTRV output) the secondary state of the GR303 interface group.

Type: enum
Range: ACT = Active
FAF = Facilities Failure
SGEO = Supporting Entity Outage
SGEO_FAF = Supporting Entity Outage and Facilities Failure
Default value: none

Input Examples:

```
DLT-GR303-IF::1;

ED-GR303-IF::1:::SWCHTYPE=LUCENT,FLWTHR=N,
   ALLOC=CIRCULAR,PPS=N,GRPNAME=GR303IF1,
   RDTVNDR=TELICA,T303=0.7,T313=0.4,T396=14.7,
   DLSAP0WINSIZ=7,DLSAP0N200=3,DLSAP0T200=0.35,
   DLSAP0T203=30,DLSAP1WINSIZ=7,DLSAP1N200=3,
   DLSAP1T200=0.35,DLSAP1T203=30:OOS;

ENT-GR303-IF::1:::SWCHTYPE=LUCENT,FLWTHR=N,
   ALLOC=CIRCULAR,PPS=N,GRPNAME=GR303IF1,
   RDTVNDR=TELICA,T303=0.7,T313=0.4,T396=14.7,
   DLSAP0WINSIZ=7,DLSAP0N200=3,DLSAP0T200=0.35,
   DLSAP0T203=30,DLSAP1WINSIZ=7,DLSAP1N200=3,
   DLSAP1T200=0.35,DLSAP1T203=30:OOS;

RTRV-GR303-IF::1;
```

Output Example:

```
   telica 2005-05-15 14:37:49
M  0 COMPLD
   "1:SWCHTYPE=LUCENT,FLWTHR=N,ALLOC=CIRCULAR,PPS=N,
      GRPNAME=GR303IF1,RDTVNDR=TELICA,T303=0.7,
      T313=0.4,T396=14.7,DLSAP0WINSIZ=7,DLSAP0N200=3,
      DLSAP0T200=0.35,DLSAP0T203=30,DLSAP1WINSIZ=7,
      DLSAP1N200=3,DLSAP1T200=0.35,DLSAP1T203=30:IS,
      ACT"
;
```

Related Commands:

```
RTRV-RDT-L2              RTRV-RDT-L3
SW-TOPROTN-GR303IF
```

DLT/ENT/RTRV-GR303-PORT

Commands:

DLT-GR303-PORT: Delete GR303 Port

ENT-GR303-PORT: Enter GR303 Port

RTRV-GR303-PORT: Retrieve GR303 Port

Descriptions:

DLT-GR303-PORT lets the user delete the association of a GR303 interface group with a DS1 port.

ENT-GR303-PORT lets the user establish an association of a GR303 interface group with a DS1 port. GR303 functionality in the switch consists of Timeslot Management Channel (TMC) operations and Embedded Operation Channel (EOC) operations. TMC operations handle call setup and clearing procedures; EOC operations handle the provisioning and maintenance of the subscriber interface. Each GR303 interface group has a primary and a secondary TMC and EOC. A port with a primary or secondary TMC and EOC has 26 bearer channels. The other ports in the GR303 interface group have 28 bearer channels. Configure the port with the primary TMC and EOC first, then the port with the secondary TMC and EOC, and lastly the ports with only bearer channels. ENT-GR303-PORT will not work unless the following commands have already been issued in the listed order: ENT-EQPT and ENT-GR303-IF.

RTRV-GR303-PORT lets the user retrieve the identity and function of a DS1 port associated with a GR303 interface group.

Category: Signaling **Security:** SA for DLT and ENT, View for RTRV

Input Formats:

```
DLT-GR303-PORT:[TID]:<grpId>:[CTAG];

ENT-GR303-PORT:[TID]:<grpId>:[CTAG]::PORT=<port>,
   TYPE=<type>;

RTRV-GR303-PORT:[TID]:<grpId>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<grpId>:PORT=<port>,TYPE=<type>"
;
```

Parameters:

grpId Identifies the AID as an association of a GR303 interface group with a DS1 port. The first part of the AID is the interface group number and the second part is the DS1 port number.

Type: IfGrpDs1Id
Range: {1-32767}-{1-28}
Default value: none

port Identifies the associated port and the IOM on which it is located.

Type: enum
Range: IOM-{1-17}-STS1-{1-8}-PORT-{1-28}
IOM-{1-17}-T3-{1-8}-PORT-{1-28}
Default value: none

type Identifies the GR303 function for the port.

Type: enum
Range: BCHAN = Port is entirely bearer channels
PRI = Port contains primary TMC and EOC
SEC = Port contains secondary TMC and EOC
Default value: none

Input Examples:

```
DLT-GR303-PORT::1-1;

ENT-GR303-PORT::1-1:::PORT=IOM-1-T3-1-PORT-1,
   TYPE=PRI;

RTRV-GR303-PORT::1-1;
```

Output Example:

```
   telica 2005-05-15 14:37:49
M  0 COMPLD
   "1-1:PORT=IOM-1-T3-1-PORT-1,TYPE=PRI"
;
```

Related Commands: none

ED/RTRV-GR303-CHAN

Commands:

ED-GR303-CHAN: Edit GR303 Channel

RTRV-GR303-CHAN: Retrieve GR303 Channel

Descriptions:

ED-GR303-CHAN lets the user change the state of DS0 channels on ports within a GR303 interface group. This command is not yet implemented; do not issue it.

RTRV-GR303-CHAN lets the user retrieve the state of a DS0 channel on a port within a GR303 interface group.

Category: Signaling **Security:** SA for ED, View for RTRV

Input Formats:

```
ED-GR303-CHAN:[TID]:<chanId>:[CTAG]::<pst>;
RTRV-GR303-CHAN:[TID]:<chanId>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<chanId>:<pst>"
;
```

Parameters:

chanId Identifies the AID as a DS0 channel on a port within a GR303 interface group. The pattern is a combination of the interface group number, and the physical channel on a port of the I/O module belonging to the GR303 interface group. A null value for the second part of the AID is equivalent to "ALL"; that is, by leaving the field blank, the state will be changed (in ED) or returned (in RTRV) for all configured channels for the specified GR303 interface group.

Type: ChanIdGrp
Range: IfGrpNum[-T0], where
IfGrpNum = {1-32767}, and
T0 = IOM-{1-17}-STS1-{1-8}-PORT-{1-28}-T0-{1-24}
IOM-{1-17}-T3-{1-8}-PORT-{1-28}-T0-{1-24}
Default value: none

pst Identifies the primary state of the GR303 subscriber line.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
OOS-AU = Out-Of-Service, Autonomous (output only)
OOS-AUMA = Out-Of-Service, Autonomous and Managed (output only)
OOS-MA = Out-Of-Service for Management (output only)
Default value: none

Input Examples:

```
ED-GR303-CHAN::1-IOM-1-T3-1-PORT-1-T0-1:::IS;
RTRV-GR303-CHAN::1-IOM-1-T3-1-PORT-1-T0-1;
```

Output Example:

```
   telica 2005-05-15 14:37:49
M  0 COMPLD
   "1-IOM-1-T3-1-PORT-1-T0-1:IS"
;
```

Related Commands: none

OPR/RLS-LPBK-GR303PORT

Commands:

OPR-LPBK-GR303PORT: Operate Loopback GR303 Port

RLS-LPBK-GR303PORT: Release Loopback GR303 Port

Descriptions:

OPR-LPBK-GR303PORT lets the user operate a local loopback on a specified GR303 port associated with a test access session in the switch. The switch issues an error response if the GR303 port is not in a state that allows a loopback to occur – take the port out of service with ED-GR303-IF first. A switch that has a loopback in effect includes the appropriate condition type information in response to a RTRV-COND command.

RLS-LPBK-GR303PORT lets the user release a local loopback on a specified GR303 port associated with a test access session in the switch. A switch that has a loopback in effect includes the appropriate condition type information in response to a RTRV-COND command.

Category: Facility **Security:** SA for both commands

Input Formats:

```
OPR-LPBK-GR303PORT:[TID]:<grpId>:[CTAG];
RLS-LPBK-GR303PORT:[TID]:<grpId>:[CTAG];
```

Output Format: none

Parameters:

grpId Identifies the AID as an association of a GR303 interface group with a DS1 port. The first part of the AID is the interface group number and the second part identifies the DS1 port within the group.

Type: IfGrpDs1Id
Range: {1-32767}-{1-28}
Default value: none

Input Examples:

```
OPR-LPBK-GR303PORT::1-1;
RLS-LPBK-GR303PORT::1-1;
```

Related Commands: none

RTRV-RDT-L2

Command:

RTRV-RDT-L2: Retrieve Remote Digital Terminal Layer 2

Description:

RTRV-RDT-L2 lets the user retrieve the values for the Layer 2 timers and counters from the RDT's Data Link profile for LAPD (Link Access Protocol - D Channel).

Category: Signaling **Security:** View

Input Format:

```
RTRV-RDT-L2:[TID]:<ifGrpNum>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<ifGrpNum>:DLSAP0WINSIZ=<dlsap0winsiz>,
      DLSAP0N200=<dlsap0n200>,DLSAP0T200=<dlsap0t200>,
      DLSAP0T203=<dlsap0t203>,
      DLSAP1WINSIZ=<dlsap1winsiz>,
      DLSAP1N200=<dlsap1n200>,DLSAP1T200=<dlsap1t200>,
      DLSAP1T203=<dlsap1t203>"
;
```

Parameters:

ifGrpNum Identifies the AID as a GR303 interface group.

Type: IfGrpNum
Range: {1-32767}
Default value: none

dlsap0winsiz Identifies the number of outstanding information frames to buffer on SAP0, the Service Access Point TMC (Timeslot Management Channel).

Type: integer
Range: {1-7}
Default value: none

dlsap0n200 Identifies the maximum number of times a frame can be retransmitted on SAP0.

Type: integer
Range: {1-10}
Default value: none

dlsap0t200 Identifies the maximum time, in seconds, that LAPD (Link Access Protocol - D Channel) waits for the receipt of an acknowledgement of a transmitted frame on SAP0.

Type: integer
Range: {0.1-0.35}
Default value: none

dlsap0t203 Identifies the maximum time, in seconds, that the LAPD link can be IDLE on SAP0.

Type: integer
Range: {10-300}
Default value: none

dlsap1winsiz Identifies the number of outstanding information frames to buffer on SAP0, the Service Access Point TMC (Timeslot Management Channel).

Type: integer
Range: {1-7}
Default value: none

dlsap1n200 Identifies the maximum number of times a frame can be retransmitted on SAP1.

Type: integer
Range: {1-10}
Default value: none

dlsap1t200 Identifies the maximum time, in seconds, that LAPD (Link Access Protocol - D Channel) waits for the receipt of an acknowledgement of a transmitted frame on SAP1.

Type: integer
Range: {0.1-0.35}
Default value: none

dlsap1t203 Identifies the maximum time, in seconds, that the LAPD link can be IDLE on SAP1.

Type: integer
Range: {10-300}
Default value: none

Input Example:

```
RTRV-RDT-L2::1;
```

Output Example:

```
   telica 2005-05-15 14:37:49
M  0 COMPLD
   "1:DLSAP0WINSIZ=7,DLSAP0N200=3,DLSAP0T200=0.15,
      DLSAP0T203=30,DLSAP1WINSIZ=7,DLSAP1N200=3,
      DLSAP1T200=0.15,DLSAP1T203=30"
;
```

Related Commands:

```
RTRV-GR303-IF            RTRV-RDT-L3
```

RTRV-RDT-L3

Command:

RTRV-RDT-L3: Retrieve Remote Digital Terminal Layer 3

Description:

RTRV-RDT-L3 lets the user retrieve the values for the Layer 3 timers from the RDT's Data Link profile for LAPD (Link Access Protocol - D Channel).

Category: Signaling **Security:** View

Input Format:

```
RTRV-RDT-L3:[TID]:<ifGrpNum>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<ifGrpNum>:T303=<t303>,T308=<t308>,T396=<t396>,
      T397=<t397>"
;
```

Parameters:

ifGrpNum Identifies the AID as a GR303 interface group.

Type: IfGrpNum
Range: {1-32767}
Default value: none

t303 Identifies the maximum time, in seconds, that the RDT will wait for a reply to a SETUP message.

Type: IfGrpNum
Range: {0.7-4.7}
Default value: none

t308 Identifies the maximum time, in seconds, that the RDT will wait for a reply to a RELEASE message.

Type: IfGrpNum
Range: {2.0-5.0}
Default value: none

t396 Identifies the maximum time, in seconds, that the switch will wait for a reply to a SETUP message following initial expiration of timer t303.

Type: IfGrpNum
Range: {0.7-14.7}
Default value: none

t397 Identifies the maximum time, in seconds, that the RDT will wait for the switch to acknowledge an INFORMATION message indicating customer has gone on-hook.

Type: IfGrpNum
Range: {60-180}
Default value: none

Input Example:

```
RTRV-RDT-L3::1;
```

Output Example:

```
   telica 2005-05-15 14:37:49
M  0 COMPLD
   "1:T303=0.7,T308=4.0,T396=0.7,T397=120"
;
```

Related Commands:

```
RTRV-GR303-IF            RTRV-RDT-L2
```

RTRV-STATUS-GR303CRV

Command:

RTRV-STATUS-GR303CRV: Retrieve Status GR303 CRV

Description:

RTRV-STATUS-GR303CRV lets the user retrieve the channel and state associated with a GR303 Call Reference Value (subscriber line).

Category: Signaling **Security:** View

Input Format:

```
RTRV-STATUS-GR303CRV:[TID]:<crvId>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<crvId>:IOMPORTDS0=<iomPortDs0>:<pst>,<sst>"
;
```

Parameters:

crvId Identifies the AID as a GR303 call reference value. The pattern is a combination of the interface group number, the call reference value, and the subscriber interface number.

Type: CrvAidGrp
Range: IFGRPNUM-CALLREFVAL-SUBSCRIBERIF, where
IFGRPNUM = {1-32767}
CALLREFVAL = {1-2048}
SUBSCRIBERIF = {1-32767}
Default value: none

iomPortDs0 Identifies the I/O module, the DS1 port on the IOM, and the DS0 channel on the port pertaining to the CRV.

Type: enum
Range: IOM-{1-17}-STS1-{1-8}-PORT-{1-28}-T0-{1-24} = a channel on a T1 port on an STS1 I/O module
IOM-{1-17}-T3-{1-8}-PORT-{1-28}-T0-{1-24} = a channel on a T1 port on a DS3 I/O module
Default value: none

pst Identifies the primary state of the GR303 call reference value.

Type: enum
Range: IS = In-Service
OOS-AU = Out-Of-Service, Autonomous
OOS-MA = Out-Of-Service for Management
Default value: none

sst Identifies the secondary state of the GR303 call reference value.

Type: enum
Range: BLKD = Blocked
BUSY = Busy
FAF = Facilities Failure
IDLE = Idle
INBUSY=Incoming Busy
OUTBUSY=Outgoing Busy
SGEO = Supporting Entity Outage
Default value: none

Input Example:

```
RTRV-STATUS-GR303CRV::1-1-1;
```

Output Example:

```
   telica 2005-05-15 14:37:49
M  0 COMPLD
   "1-1-1:IOMPORTDS0=IOM-2-T3-2-PORT-28-T0-24:IS,IDLE"
;
```

Related Commands:

DLT/ED/ENT/RTRV-GR303-CRV

RTRV-STATUS-GR303IF

Command:

RTRV-STATUS-GR303IF: Retrieve Status GR303 Interface

Description:

RTRV-STATUS-GR303IF lets the user retrieve parameters associated with a GR303 interface group.

Category: Signaling **Security:** View

Input Format:

```
RTRV-STATUS-GR303IF:[TID]:<ifGrpNum>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<ifGrpNum>:ACTIVETMC=<activeTMC>,
      ACTIVEEOC=<activeEOC>:<pst>,<sst>"
;
```

Parameters:

ifGrpNum Identifies the AID as a GR303 interface group.

Type: IfGrpNum
Range: {1-32767}
Default value: none

activeTMC Identifies which TMC (Timeslot Management Channel) is active for the GR303 interface group.

Type: enum
Range: PRI = primary TMC is active
SEC = secondary TMC is active
Default value: none

activeEOC Identifies which EOC (Embedded Operation Channel) is active for the GR303 interface group.

Type: enum
Range: PRI = primary EOC is active
SEC = secondary EOC is active
Default value: none

pst Identifies the primary state of the GR303 interface group.

Type: enum
Range: IS = In-Service
OOS-AU = Out-Of-Service, Autonomous
OOS-AUMA = Out-Of-Service, Autonomous and Managed
OOS-MA = Out-Of-Service for Management
Default value: none

sst Identifies the secondary state of the GR303 interface group.

Type: enum
Range: ACT = Active
FAF = Facilities Failure
SGEO = Supporting Entity Outage
SGEO_FAF = Supporting Entity Outage and Facilities Failure
Default value: none

Input Example:

```
RTRV-STATUS-GR303IF::1;
```

Output Example:

```
   telica 2005-05-15 14:37:49
M  0 COMPLD
   "1:ACTIVETMC=PRI,ACTIVEEOC=PRI,OOS-AU,FAF"
;
```

Related Commands:

```
DLT/ED/ENT/RTRV-GR303-IF      SW-TOPROTN-GR303IF
```

SW-TOPROTN-GR303IF

Command:

SW-TOPROTN-GR303IF: Switch To Protection GR303 Interface

Description:

SW-TOPROTN-GR303IF lets the user perform a protection switch on a GR303 interface group; i.e., it switches an active TMC (Time Management Channel) or EOC (Embedded Operation Channel) to standby.

Category: Signaling **Security:** SA

Input Format:

```
SW-TOPROTN-GR303IF:[TID]:<ifGrpNum>:[CTAG]::
   [<channel]>;
```

Output Format: none

Parameters:

ifGrpNum Identifies the AID as a GR303 interface group.

Type: IfGrpNum
Range: {1-32767}
Default value: none

channel Identifies the active channel to fail over to standby.

Type: Channel
Range: BOTH
EOC
TMC
Default value: BOTH

Input Example:

```
SW-TOPROTN-GR303IF;
```

Related Commands:

DLT/ED/ENT/RTRV-GR303-IF

NOTES

DLT/ED/ENT/RTRV-SIP-IPADDR

Commands:

DLT-SIP-IPADDR: Delete SIP IP Address

ED-SIP-IPADDR: Edit SIP IP Address

ENT-SIP-IPADDR: Enter SIP IP Address

RTRV-SIP-IPADDR: Retrieve SIP IP Address

Descriptions:

DLT-SIP-IPADDR lets the user delete a SIP (Session Initiation Protocol) IP address.

ED-SIP-IPADDR lets the user change the primary and (optional) secondary IP addresses, and the description for a trunk group unique to a specific SIP (Session Initiation Protocol) Session Access Node.

ENT-SIP-IPADDR lets the user establish the primary and (optional) secondary IP addresses, and the description for a trunk group unique to a specific SIP (Session Initiation Protocol) Session Access Node. ENT-SIP-IPADDR will not work unless ENT-TRKGRP has already been issued.

RTRV-SIP-IPADDR lets the user retrieve the primary and (optional) secondary IP addresses, and the description for a trunk group unique to a specific SIP (Session Initiation Protocol) Session Access Node.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-SIP-ADDR:[TID]:<tgnSipId>:[CTAG];

ED-SIP-IPADDR:[TID]:<tgnSipId>:[CTAG]::
   [PRIMIPADDR=<primIPAddr>],[SECIPADDR=<secIPAddr>],
   [DESC=<description>];

ENT-SIP-IPADDR:[TID]:<tgnSipId>:[CTAG]::
   PRIMIPADDR=<primIPAddr>,[SECIPADDR=<secIPAddr>],
   [DESC=<description>];

RTRV-SIP-IPADDR:[TID]:<tgnSipId>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<tgnSipId>:PRIMIPADDR=<primIPAddr>,
      SECIPADDR=<secIPAddr>,DESC=<description>"
;
```

Parameters:

tgnSipId Identifies the AID as a trunk group unique to a specific Session Access Node. The first part of the AID is the trunk group number and the second part is the Session Access Node.

Type: TgnSipId
Range: {1-9999}-{1-16}
Default value: none

primIPAddr Identifies the primary IP address for the trunk group to access the feature server.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

secIPAddr Identifies the optional secondary IP address for the trunk group to access the feature server.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: NULL

description Identifies the description of the interface.

Type: string
Range: up to 32 ASCII characters
Default value: NULL

Input Examples:

```
DLT-SIP-IPADDR::1-1;
ED-SIP-IPADDR::1-1:::PRIMIPADDR=192.168.254.0;
ENT-SIP-IPADDR::1-1:::PRIMIPADDR=192.168.254.0;
RTRV-SIP-IPADDR::1-1;
```

Output Example:

```
   lucent 2004-05-14 14:37:49
M  0 COMPLD
   "1-1:PRIMIPADDR=192.168.254.0,SECIPADDR=NULL,
      DESC=NULL"
;
```

Related Commands: none

ED/RTRV-SIP-SYS

Commands:

ED-SIP-SYS: Edit SIP System

RTRV-SIP-SYS: Retrieve SIP System

Descriptions:

ED-SIP-SYS lets the user change the configuration for SIP (Session Initiation Protocol) within the switch; that is, it configures the SIP stack for the number of supported connections and various timers.

RTRV-SIP-SYS lets the user retrieve the configuration for SIP (Session Initiation Protocol) within the switch; that is, it retrieves the number of supported connections and various timers from the SIP stack.

Category: Signaling **Security:** SA for ED, View for RTRV

Input Formats:

```
ED-SIP-SYS:[TID]:[<src>]:[CTAG]::
   [<IDLETMR=<idletmr>],[CLEANUPTMR=<cleanuptmr>],
   [MAXCONNS=<maxconns>],[INVITETMOUT=<invitetmout>],
   [T1=<t1>],[T2=<t2>],[ANNCURL=<anncURL>],
   [REMOTEANNCREQ=<remoteAnncReq>],
   [SENDPRACK=<sendprack>],[SESTMR=<sestmr>],
   [INVITERETRY=<inviteretry>]:[<pst>];

RTRV-SIP-SYS:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:IDLETMR=<idletmr>,CLEANUPTMR=<cleanuptmr>,
      MAXCONNS=<maxconns>,INVITETMOUT=<invitetmout>,
      T1=<t1>,T2=<t2>,ANNCURL=<anncURL>,
      REMOTEANNCREQ=<remoteAnncReq>,
      SENDPRACK=<sendprack>,SESTMR=<sestmr>,
      INVITERETRY=<inviteretry>:<pst>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

idletmr Identifies the maximum time, in milliseconds, that a connection can be idle before it is deleted. The factory default is “120000”.

Type: integer
Range: {1-2147483647}
Default value: not applicable

cleanuptmr Identifies the time, in milliseconds, that the Connection Handler uses to check for idle connections. Lucent recommends setting *cleanuptmr* to a value at least 10 times smaller than the value for ***idletmr***. The factory default is “12000”.

Type: integer
Range: {1-2147483647}
Default value: not applicable

maxconns Identifies the maximum number of connections that the Connection Handler can make to a single remote address. The factory default value of “0” indicates that there is no limit to the permitted number of connections.

Type: integer
Range: {0-32767}
Default value: not applicable

invitetmout Identifies the duration, in milliseconds, that a SIP client will wait for a response to an INVITE request. A value of 0 indicates that the INVITE request will never expire and must therefore be explicitly cancelled. The factory default is “45000”.

Type: integer
Range: {0-3600000}
Default value: not applicable

t1 Identifies the duration, in milliseconds, before the first retransmission of a request over UDP, or an INVITE response over any transport protocol. Subsequent retransmission intervals are calculated by doubling this initial value, up to a maximum limited to the value of *t2tmr*. The factory default is "500".

Type: integer
Range: {500-60000}
Default value: not applicable

t2 Identifies the maximum time, in milliseconds, before a request is retransmitted over UDP or an INVITE response is retransmitted over any transport protocol. The value of *t2tmr* cannot be less than the value of *t1tmr*. The factory default is "4000".

Type: integer
Range: {4000-180000}
Default value: not applicable

anncURL Identifies the announcement URL used to validate the URL in a SIP INVITE message for playing an announcement. When the URL in the INVITE message does not match the provisioned announcement URL, the response will be "400 Bad Request". The factory default is "ANNC".

Type: string
Range: up to 32 characters, excluding comma (,), semicolon (;), and single quote (')
Default value: not applicable

remoteAnncReq Indicates whether remote announcement requests are allowed for SIP trunks. When set to "N", SIP INVITE messages for playing an announcement receive a "405 Method Not Allowed" response. The factory default is "N".

Type: BoolYN
Range: N = remote announcement requests are not allowed
Y = remote announcement requests are allowed
Default value: not applicable

sendPrack Indicates whether to send a Provisional Response Acknowledgement in response to a received 101-199 Provisional Response. When set to "Y", all outgoing INVITEs contain the Supported header set with "100rel". The switch always supports receiving Provisional Responses and Provisional Response Acknowledgements. The factory default is "N".

Type: BoolYN
Range: N = remote announcements are not required
Y = remote announcements are required
Default value: not applicable

sesTmr Identifies the time, in seconds, before refreshing a SIP session. The value is included with both the SESSION-EXPIRES and the MIN-SE headers in the outgoing INVITE. Sessions are normally refreshed at half of the value of the EXPIRES timer. The recommended value for this timer when enabled is 1800 (30 minutes). Setting the value to "0" disables the session timer logic. The factory default is "0".

Type: integer
Range: {0, 60-86400}
Default value: not applicable

inviteRetry Identifies the number of times that an INVITE will be retried while waiting for a response. The factory default is "6".

Type: integer
Range: {0-6}
Default value: not applicable

pst Indicates the desired primary state of the SIP system. The switch ignores all SIP calls when the value of *pst* is "OOS". A null value means no change to the current value. The factory default is "IS". This parameter is not yet implemented; leave it blank.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
OOS-AU = Out-Of-Service, Autonomous (output only)
OOS-AUMA = Out-Of-Service, Autonomous and Managed (output only)
OOS-MA = Out-Of-Service for Management (output only)
Default value: not applicable

Input Examples:

```
ED-SIP-SYS:::::IDLETMR=120000,CLEANUPTMR=12000,
   MAXCONNS=0,INVITETMOUT=45000,T1=500,T2=4000,
   ANNCURL=ANNC,REMOTEANNCREQ=N,SENDPRACK=N,SESTMR=0,
   INVITERETRY=6:IS;

RTRV-SIP-SYS;
```

Output Example:

```
   lucent 2004-05-14 14:37:49
M  0 COMPLD
   "COM:IDLETMR=120000,CLEANUPTMR=12000,MAXCONNS=0,
      INVITETMOUT=45000,T1=500,T2=4000,ANNCURL=ANNC,
      REMOTEANNCREQ=N,SENDPRACK=N,SESTMR=0,
       INVITERETRY=6:IS"
;
```

Related Commands: none

INIT-REG-SIPMSG / RTRV-PM-SIPMSG

Commands:

INIT-REG-SIPMSG: Initialize Register SIP Message

RTRV-PM-SIPMSG: Retrieve Performance SIP Message

Descriptions:

INIT-REG-SIPMSG lets the user initialize one or more storage registers or event counters for SIP (Session Initiation Protocol) message statistics.

RTRV-PM-SIPMSG lets the user retrieve current and historical performance data related to SIP (Session Initiation Protocol) messages.

Category: Signaling **Security:** NSA for ED, View for RTRV

Input Formats:

```
INIT-REG-SIPMSG:[TID]:[<com>]:[CTAG]::[<montype>],
   [<monval>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

```
RTRV-PM-SIPMSG:[TID]:[<com>]:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<com>:<montype>,<monval>,[<vldty>],[<locn>],
      [<dirn>],[<tmper>],[<mondat>],[<montm>]"
;
```

Parameters:

com Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

montype Identifies a type of monitored parameter for SIP messages.

Type: enum

Range: 301_MOVEDP = Moved Permanently: the number of times one or more network address formats contained in the session description were not available; i.e., the number of times the user could not be found at the address in the Request-URI (Uniform Resource Identifier).

302_MOVEDT = Moved Temporarily: the number of times one or more transport protocols described in the session description were not available

401_UNAUTH = Unauthorized: the number of times responses that the request requires user authentication are received from user agent servers (UAS) and registrars

402_PAYUPH = Payment required: this value is not used currently

403_FORBID = Forbidden: the number of times the server understood the request, but refused to fulfill it.

404_NOTFND = Not Found: the number of times either the user did not exist at the domain specified in the Request-URI, or the domain in the Request-URI did not match any of the domains handled by the recipient of the request

405_METHD = Method Not Allowed: the number of times the method specified in the Request-Line is not allowed for the address identified by the Request-URI

406_NOTACC1 = Not Acceptable: the number of times the resource identified by the request can only generate response entities with unacceptable content characteristics according to the Accept header field sent in the request

407_PROXY = Proxy Authentication Required: the number of times proxy servers send a response that the request requires user authentication

408_TIMEOUT0 = Request Timeout: the number of times servers could not produce a response within a suitable amount of time

409_CONFLCT = Conflict: the number of times the request could not be completed due to a conflict with the current state of the resource.

410_GONE = Gone: the number of times the requested resource is no longer available at the server and no forwarding address is known

411_LENREQ = Length Required: the number of times the server refuses to accept the request without a defined Content-Length header field containing the length of the message-body in the request message.

413_ENTLEN = Request Entity Too Large: the number of times the server refuses to process a request because the request entity-body is larger than the server is willing or able to process

414_URILEN = Request-URI Too Long: the number of times the server refuses to process a request because the Request-URI is longer than the server can interpret

415_MEDIA = Unsupported Media Type: the number of times the server refuses to process a request because the message body of the request is in a format not supported by the server for the requested method

420_BADEXT = Bad Extension: the number of times the server did not understand the protocol extension specified in a Proxy-Require or Require header field

480_TEMPUNV = Temporarily Unavailable: the number of times the called party's end system was contacted successfully but the called party is currently unavailable (for example, is not logged in, logged in but in a state that precludes communication, or has activated the "do not disturb" feature)

483_HOPCNT = Too Many Hops: the number of times the server received a request that contains a Max-Forwards header field (which limits the number of hops a request can transit on the way to its destination) with the value zero (i.e., no further forwarding allowed)

484_ADDRINC = Address Incomplete: the number of times the server received a request with an incomplete Request-URI

485_AMBIGUO = Ambiguous: the number of times the Request-URI was ambiguous

486_BUSYHR = Busy Here: the number of times the called party's end system was contacted successfully but the called party is currently not willing or able to take additional calls

487_REQTERM = Request Terminated: the number of times the request was terminated by a BYE or CANCEL request

488_NOTACCH = Not Acceptable Here: the number of times the user's agent was contacted successfully by the specific resource addressed by the Request-URI, but some aspects of the session description such as the requested media, bandwidth, or addressing style were not acceptable.

500_INTERR = Server Internal Error: the number of times the server encountered an unexpected condition that prevented it from fulfilling the request

501_NOTIMPL = Not Implemented: the number of times the server does not support the functionality required to fulfill the request

502_BADGTWY = Bad Gateway: the number of times the server, while acting as a gateway or proxy, received an invalid response from the downstream server it accessed in attempting to fulfill the request

503_SERVUNV = Service Unavailable: the number of times the server is temporarily unable to process the request due to temporary server overloading or maintenance

504_GTWYTO = Server Time-out: the number of times the server did not receive a timely response from an external server it accessed in attempting to process the request

600_BUSYEV = Busy Everywhere: the number of times the called party's end system was contacted successfully but the called party was busy and did not wish to take the call at that time

603_DECLINE = Decline: the number of times the called party was successfully contacted but the user explicitly did not wish to or could not participate

604_NOEXIST = Does Not Exist Anywhere: the number of times the server has authoritative information that the user shown in the Request-URI does not exist anywhere

606_NOTACC2 = Not Acceptable: the number of times the user's agent was contacted successfully but some aspects of the session description such as the requested media, bandwidth, or addressing style were not acceptable; i.e., the user wishes to communicate, but cannot adequately support the session described

ALL = all monitored parameters

ANNC_RCV = number of ANNC messages received by the switch

ANNC_SENT = number of ANNC messages sent by the switch

BYE_RCV = number of RELEASE messages received for established calls terminated due to normal release

BYE_SENT = number of established calls terminated due to normal release

BYE_TOUT = number of timeouts received by the switch in response to BYE (hangup) messages; i.e., the number of completed call terminations for which a BYE message was sent but no OK message received in response

BYEFINL_RCV = number of 200 (OK) messages received by the switch in response to BYE (hangup) messages; i.e., the total number of completed call terminations

CANC_RCV = number of CANCEL messages received due to termination of calls for reasons other than normal release
CANC_SENT = number of CANCEL messages sent due to termination of established calls for reasons other than normal release
CANCINV_SENT = number of calls pending cancellation when INVITE acknowledgement received
INFO_RCV = number of INFO messages received by the switch
INFO_SENT = number of INFO messages sent by the switch
INV_RCV = number of INVITE messages received by the switch
INV_SENT = number of INVITE messages sent by the switch
INV_TOUT = number of INVITE messages which timeout because no response is received
NOTIFY_RCV = number of NOTIFY messages received by the switch
NOTIFY_SENT = number of NOTIFY messages sent by the switch
OTHER = number of terminated calls due to undefined release conditions
REDIRINV_SENT = number of INVITE messages sent by the switch due to a REDIRECT request
REFER_RCV = number of REFER messages received by the switch
REFER_SENT = number of REFER messages sent by the switch
REINV_RCV = number of re-transmitted INVITE messages received by the switch
SCALLS = number of standing SIP calls
SUBSCRIBE_RCV = number of SUBSCRIBE messages received by the switch
SUBSCRIBE_SENT = number of SUBSCRIBE messages sent by the switch

Default value: ALL

monval Monitored value is either the measured value of the monitored parameter, or the value to which the register identified by *montype* is to be initialized. The value is in the form of numeric counts or rates. This parameter is presently unused (for INIT-REG); leave it blank.

Type: integer
Range: {0-9999}
Default value: 0

monlev Identifies (for RTRV-PM input) the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

vldty Identifies (for RTRV-PM output) the validity of the monitored interval; that is, whether the information for the specified time period was accumulated over the entire time period or some portion of it.

Type: enum
Range: ADJ = Data manually adjusted or initialized
COMPL = Data accumulated over the entire time period
LONG = Data accumulated over more than the entire period
NA = Data not available
PRTL = Data accumulated over a portion of the time period
Default value: not applicable for output

locn Indicates the location of the storage registers or event counters to be initialized. Thus, "NEND" refers to PM values obtained at the identified entity, and "FEND" refers to PM values obtained at a distant entity. Currently only “NEND” is supported.

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters relative to the switch. A null value defaults to all applicable directions (currently only “BTH”). This parameter is presently unused; leave it blank. The switch currently returns only the value “BTH”.

Type: enum
Range: BTH = Both directions
NA = Not applicable
RCV = Receive direction only
TRMT = Transmit direction only
Default value: BTH

tmper The accumulation period for performance counters. The only values currently allowed for *tmper* are “15-MIN” and “24-HR”. A null value defaults to both applicable accumulation periods. This parameter is presently not supported; leave it blank.

Type: enum
Range: {1}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)
Default value: both 15-MIN and 24-HR

mondat Indicates the monitored date. The value indicates the beginning date for the performance-monitoring or storage register period defined by *tmper*. The format is MM-DD. This parameter is presently not supported; leave it blank.

Type: enum
Range: {1-12}-{1-31}
Default value: current date

montm Indicates the monitored time. The value indicates the beginning time of day for the performance-monitoring or storage register period defined by *tmper*. The format is HH-MM. This parameter is presently not supported; leave it blank.

Type: enum
Range: {0-23}-{0-59}
Default value: current time

Input Examples:

```
INIT-REG-SIPMSG;
RTRV-PM-SIPMSG;
```

Output Example:

```
   lucent 2004-05-14 14:37:49
M  0 COMPLD
   "COM:SCALLS,0"
   "COM:INV_SENT,0"
   "COM:REDIRINV_SENT,0"
   "COM:BYE_SENT,0"
   "COM:CANC_SENT,0"
   "COM:CANCINV_SENT,0"
   "COM:INV_RCV,0"
   "COM:REINV_RCV,0"
   "COM:BYE_RCV,0"
   "COM:301_MOVEDP,0"
   "COM:BYEFNL_RCV,0"
   "COM:INV_TOUT,0"
   "COM:BYE_TOUT,0"
   "COM:301_MOVEDP,0"
   "COM:302_MOVEDT,0"
   "COM:401_UNAUTH,0"
   "COM:402_PAYUPH,0"
   "COM:403_FORBID,0"
   "COM:404_NOTFND,0"
   "COM:405_METHD,0"
   "COM:406_NOTACC1,0"
   "COM:407_PROXY,0"
   "COM:408_TIMEOUT0,0"
   "COM:409_CONFLCT,0"
   "COM:410_GONE,0"
   /* RTRV-PM-SIPMSG */
>
Lucent>

   lucent 2004-05-14 14:37:49
M  0 COMPLD
   "COM:411_LENREQ,0"
   "COM:413_ENTLEN,0"
   "COM:414_URILEN,0"
   "COM:415_MEDIA,0"
   "COM:420_BADEXT,0"
   "COM:480_TEMPUNV,0"
   "COM:483_HOPCNT,0"
   "COM:484_ADDRINC,0"
   "COM:485_AMBIGUO,0"
   "COM:486_BUSYHR,0"
   "COM:487_REQTERM,0"
   "COM:488_NOTACCH,0"
   "COM:500_INTERR,0"
```

```
   "COM:501_NOTIMPL,0"
   "COM:502_BADGTWY,0"
   "COM:503_SERVUNV,0"
   "COM:504_GTWYTO,0"
   "COM:600_BUSYEV,0"
   "COM:603_DECLINE,0"
   "COM:604_NOEXIST,0"
   "COM:606_NOTACC2,0"
   "COM:OTHER,0"
   "COM:REFER_SENT,0"
   "COM:REFER_RCV,0"
   "COM:NOTIFY_SENT,0"
   /* RTRV-PM-SIPMSG */
>
Lucent>

   lucent 2004-05-14 14:37:49
M  0 COMPLD
   "COM:NOTIFY_RCV,0"
   "COM:SUBSCRIBE_SENT,0"
   "COM:SUBSCRIBE_RCV,0"
   "COM:INFO_SENT,0"
   "COM:INFO_RCV,0"
   "COM:ANNC_SENT,0"
   "COM:ANNC_RCV,0"
   /* RTRV-PM-SIPMSG */
;
```

Related Commands: none

NOTES

DLT/ED/ENT/RTRV-MGCP-GW

Commands:

DLT-MGCP-GW: Delete MGCP Gateway

ED-MGCP-GW: Edit MGCP Gateway

ENT-MGCP-GW: Enter MGCP Gateway

RTRV-MGCP-GW: Retrieve MGCP Gateway

Descriptions:

DLT-MGCP-GW lets the user delete an MGCP (Media Gateway Controller Protocol) gateway.

ED-MGCP-GW lets the user change the parameters associated with an MGCP (Media Gateway Controller Protocol) gateway. Use this command to increase the number of available lines associated with the gateway, and to change the gateway name and type, the MGCP variant, the MGCP signaling port, the transaction round-trip timeout values, whether to enable additional logging on MGCP dialogs, the type of action taken when transitioning from IS to OOS, and the primary state of the gateway.

ENT-MGCP-GW lets the user establish the parameters associated with an MGCP (Media Gateway Controller Protocol) gateway. Use this command to establish the gateway name and type, the MGCP variant, the MGCP signaling port, the transaction round-trip timeout values, whether to enable additional logging on MGCP dialogs, the type of action taken when transitioning from IS to OOS, and the primary state of the gateway.

RTRV-MGCP-GW lets the user retrieve the parameters associated with an MGCP (Media Gateway Controller Protocol) gateway, including the gateway name and type, the MGCP variant, the MGCP signaling port, the transaction round-trip timeout values, whether to enable additional logging on MGCP dialogs, the type of action taken when transitioning from IS to OOS, and the primary and secondary states of the gateway.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-MGCP-GW:[TID]:<gatewayaid>:[CTAG];

ED-MGCP-GW:[TID]:<gatewayaid>:[CTAG]::
   [MAXLINE=<maxline>],[NAME=<name>],
   [NAMETYPE=<nametype>],[PROTOCOL=<protocol>],
   [MGCPPORT=<mgcpport>],[RETRYTMO=<retrytmo>],
   [INITRTTMO=<initrttmo>],[MAXRTTMO=<maxrttmo>],
   [PENDINGTMO=<pendingtmo>],[LOGGING=<logging>],
   [AUDITINTERVAL=<auditinterval>],
   [CMDMODE=<cmdmode>],[ENDPTIDENT=<endptident>]:
      [<pst>];

ENT-MGCP-GW:[TID]:<gatewayaid>:[CTAG]::
   MAXLINE=<maxline>,NAME=<name>,
   [NAMETYPE=<nametype>],[PROTOCOL=<protocol>],
   [MGCPPORT=<mgcpport>],[RETRYTMO=<retrytmo>],
   [INITRTTMO=<initrttmo>],[MAXRTTMO=<maxrttmo>],
   [PENDINGTMO=<pendingtmo>],[LOGGING=<logging>],
   [AUDITINTERVAL=<auditinterval>],
   [CMDMODE=<cmdmode>],[ENDPTIDENT=<endptident>]:
      [<pst>];

RTRV-MGCP-GW:[TID]:[<gatewayaid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<gatewayId>:MAXLINE=<maxline>,NAME=<name>,
      NAMETYPE=<nametype>,PROTOCOL=<protocol>,
      MGCPPORT=<mgcpport>,RETRYTMO=<retrytmo>,
      INITRTTMO=<initrttmo>,MAXRTTMO=<maxrttmo>,
      PENDINGTMO=<pendingtmo>,LOGGING=<logging>,
      AUDITINTERVAL=<auditinterval>,CMDMODE=<cmdmode>,
      ENDPTIDENT=<endptident>:<pst>,<sst>"
;
```

Parameters:

gatewayaid Identifies the AID as the gateway controlled under the Call Management Server (CMS). A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the system retrieves data for all MGCP gateways configured in the system. A range of gateways can be shown (in RTRV) by the beginning and ending numbers separated by two ampersands and a hyphen ("&&-").

Type: integer
Range: {1-100000}
Default value: none

maxline Identifies the number of available lines associated with the gateway.

Type: integer
Range: {1-65536}
Default value: none

name Identifies the name of the gateway, either as a fully qualified domain name, or as an IP address with a range of {0-255}-{0-255}-{0-255}-{0-255}. A fully qualified domain name must be unique and the same on the switch, the media gateway (the Internet access device, or IAD) and the domain name server (DNS).

Type: string
Range: up to 32 characters
Default value: none

nametype Identifies the type of name for the gateway.

Type: enum
Range: DYNAMIC = removes the gateway level check; no IP address based authentication is performed on incoming messages from the gateway. Endpoints are matched by the endpoint name in the MGCP message only, and any source IP address/port will be accepted. Specify the value of *name* as an IP address and not as an FQDN.
FQDN = fully qualified domain name
IPV4 = IP v4 address
Default value: FQDN

protocol Identifies the variant of MGCP used by the gateway.

Type: enum
Range: NCS = Network Call Signaling: used to control telephony-enabled cable modems
MGCP = basic Media Gateway Control Protocol in accordance with IETF RFC 3435
Default value: MGCP

mgcpport Identifies the signaling port in the MGCP gateway.

Type: integer
Range: {1025-65535}
Default value: 2427

retrytmo Identifies the maximum elapsed time, in milliseconds, after which the switch will not reattempt a transaction to the gateway.

Type: integer
Range: {3000-50000}, in 100 msec increments
Default value: 30000

initrttmo Identifies the estimated elapsed time, in milliseconds, to receive a response from the gateway to a transaction before reattempting the transaction.

Type: integer
Range: {200-1000}, in 100 msec increments
Default value: 200

maxrttmo Identifies the maximum elapsed time, in milliseconds, to receive a response to a transaction from the gateway before reattempting the transaction.

Type: integer
Range: {1000-10000}, in 100 msec increments
Default value: 5000

pendingtmo Identifies the maximum elapsed time, in milliseconds, to receive a response to a transaction from the gateway when a RESPONSE PENDING message has been received before reattempting the transaction.

Type: integer
Range: {500-2000}, in 100 msec increments
Default value: 1000

logging Identifies whether to enable additional logging on MGCP dialogs.

Type: BoolYN
Range: N = do not enable additional logging
Y = enable additional logging
Default value: N

cmdmode Identifies the type of action taken when transitioning from IS to OOS.

Type: enum
Range: FRCD = Forced mode – tears down connections
NORM = Normal mode
Default value: NORM

auditinterval Identifies the amount of time, in seconds, between audits of the gateway's endpoints by the Call Agent in the switch. The Call Agent generates an alarm if the audit indicates that the gateway is unreachable.

Type: integer
Range: {0, 60-3600}
Default value: 0

endptident Identifies the method of validating the endpoint for the gateway. The following table shows the legal combinations and behavior of *nametype* and *endptident*:

nametype	***endptident* =NAMEIPADDR**	***endptident* =NAMEONLY**
IPV4	Same as IPV4 today (no SBC)	Interwork with SBC, SBC identified by IP address, endpoints identified by name only
FQDN	Same as FQDN today (no SBC)	Interwork with SBC, SBC identified by FQDN, endpoints identified by name only
DYNAMIC	Invalid/ Not Allowed	No SBC, support dynamic IP address environment

Specifying NAMEONLY, with or without an SBC (Session Border Controller), puts the remote gateway in "MAC mode". This means that the MGCP endpoint identifies itself with a locally unique endpoint name plus the gateway MAC address (instead of IP address). For example, an MGCP message could contain this endpoint identifier "aaln/1@ 0800690201FC". This mode has the advantages of providing a globally unique identification, and providing some measure of device authentication, both independent of using IP addresses. Because IP addresses may be private and/or dynamic, they do not meet the requirements of being both unique and static.

Type: enum
Range: NAMEIPADDR = validate both the MGCP endpoint name and IP address
NAMEONLY = validate the MGCP endpoint name only
Default value: NAMEIPADDR

pst Identifies the primary state of the gateway.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: IS

pst Identifies (in RTRV output) the primary state, and primary state qualifier, of the gateway.

Type: enum
Range: IS-NR = In-Service, Normal
IS-RST = In-Service, Reset
OOS-ANR = Out-Of-Service, Abnormal
OOS-AU = Out-Of-Service, Autonomous
OOS-AUMA = Out-Of-Service, Autonomous and Managed
OOS-MA = Out-Of-Service, Managed
OOS-MAANR = Out-Of-Service, Managed and Abnormal
Default value: none

sst Identifies (in RTRV output) the secondary state of the gateway.

Type: enum
Range: BLKD = Blocked
BUSY = Busy
IDLE = Idle
INHIP = Inhibit in Progress
INXT = Inconsistent
SGEO = Supporting Entity Outage
TRANS = Transient
UEQ = Unequipped
Default value: none

Input Examples:

```
DLT-MGCP-GW::1;

ED-MGCP-GW::1:::MAXLINE=2,NAME=MediaGatewayHost1,
   NAMETYPE=FQDN,PROTOCOL=MGCP,MGCPPORT=2427,
   RETRYTMO=30000,INITRTTMO=200,MAXRTTMO=5000,
   PENDINGTMO=1000,LOGGING=N,AUDITINTERVAL=0,
   CMDMODE=NORM,ENDPTIDENT=NAMEIPADDR:IS;

ENT-MGCP-GW::1:::MAXLINE=2,NAME=MediaGatewayHost1,
   NAMETYPE=FQDN,PROTOCOL=MGCP,MGCPPORT=2427,
   RETRYTMO=30000,INITRTTMO=200,MAXRTTMO=5000,
   PENDINGTMO=1000,LOGGING=N,AUDITINTERVAL=0,
   CMDMODE=NORM,ENDPTIDENT=NAMEIPADDR:IS;

RTRV-MGCP-GW::1;
```

Output Example:

```
   telica 2004-06-14 14:37:49
M  0 COMPLD
   "1:MAXLINE=2,NAME=MediaGatewayHost1,NAMETYPE=FQDN,
      PROTOCOL=MGCP,MGCPPORT=2427,RETRYTMO=30000,
      INITRTTMO=200,MAXRTTMO=5000,PENDINGTMO=1000,
      LOGGING=Y,AUDITINTERVAL=0,CMDMODE=FRCD,
      ENDPTIDENT=NAMEIPADDR:IS-NR,IDLE"
;
```

Related Commands:

RTRV-STATUS-MGCPGW

DLT/ED/ENT/RTRV-MGCP-LINE

Commands:

DLT-MGCP-LINE: Delete MGCP Line

ED-MGCP-LINE: Edit MGCP Line

ENT-MGCP-LINE: Enter MGCP Line

RTRV-MGCP-LINE: Retrieve MGCP Line

Descriptions:

DLT-MGCP-LINE lets the user delete a line (i.e., endpoint) in a line group on an MGCP (Media Gateway Controller Protocol) gateway.

ED-MGCP-LINE lets the user change the parameters associated with a line (i.e., endpoint) in a line group on an MGCP (Media Gateway Controller Protocol) gateway. Use this command to change the endpoint's associated line group, name, type, type of action taken when transitioning from IS to OOS, and primary state.

ENT-MGCP-LINE lets the user establish the parameters associated with a line (i.e., endpoint) in a line group on an MGCP (Media Gateway Controller Protocol) gateway. Use this command to establish the endpoint's associated line group, name, type, type of action taken when transitioning from IS to OOS, and primary state.

RTRV-MGCP-LINE lets the user retrieve the parameters associated with a line (i.e., endpoint) in a line group on an MGCP (Media Gateway Controller Protocol) gateway, including the endpoint's associated line group, name, type of action taken when transitioning from IS to OOS, and the primary and secondary states.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-MGCP-LINE:[TID]:<mgcpLineId>:[CTAG];
```

```
ED-MGCP-LINE:[TID]:<mgcplineid>:[CTAG]::
   [MGCPLNGRPID=<mgcplngrpid>],
   [ENDPTNAME=<endptname>],[NAME=<name>],
   [LINETYPE=<linetype>],[CMDMODE=<cmdmode>]:[<pst>];
```

```
ENT-MGCP-LINE:[TID]:<mgcplineid>:[CTAG]::
   MGCPNLNGRPID=<mgcplngrpid>,ENDPTNAME=<endptname>,
   [NAME=<name>],[LINETYPE=<linetype>],
   [CMDMODE=<cmdmode>]:[<pst>];

RTRV-MGCP-LINE::1-1;
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<mgcplineid>:MGCPLNGRPID=<mgcplngrpid>,
      ENDPTNAME=<endptname>,NAME=<name>,
      LINETYPE=<linetype>,CMDMODE=<cmdmode>:<pst>,
      <sst>"
;
```

Parameters:

mgcpLineId Identifies the AID as a line (i.e., endpoint) in an MGCP gateway. The pattern is a combination of a gateway controlled under the Call Management Server (CMS) and the affected endpoint. A null value (in RTRV) is equivalent to “ALL”; that is, by leaving the field blank, the system retrieves data for all endpoints on all MGCP gateways configured in the system. A null value for the second part of the AID (in RTRV) is equivalent to “ALL”; that is, by leaving the field blank, the system retrieves data for all endpoints on the specified MGCP gateway. A range of endpoints can be shown (in RTRV) by the beginning and ending numbers separated by two ampersands and a hyphen (“&&-”).

Type: MgcpLineAid
Range: <gatewayId>-<lineId>, where
gatewayId = {1-100000} and
lineId = {1-65536}
Default value: none

mgcplngrpid Identifies the line group as a logical interface number associated with a set of lines (endpoints).

Type: integer
Range: {1-100000}
Default value: none

endptname Identifies the name of the endpoint, which distinguishes the line for use by the protocol, and must be both unique and the same on the switch and the media gateway. Endpoints can be represented as a fully-qualified domain name (for example, “aaln/1”), a MAC address (for example, “aaln/1@0800690201FC”), or an IP address (for example, “aaln/1@[127.0.0.1]”).

Type: string
Range: up to 32 characters (including “@”, “[“ , and “]”)
Default value: none

name Identifies a description (or remarks) for the endpoint.

Type: string
Range: up to eight characters
Default value: NULL

linetype Identifies the type of endpoint. Only the value “AALN” is supported currently.

Type: enum
Range: AALN = Analog Access Line endpoint
ANN = Announcement server endpoint
CNF = Conference server endpoint
DS = Digital channel endpoint
Default value: AALN

cmdmode Identifies the type of action taken when transitioning from IS to OOS.

Type: enum
Range: FRCD = Forced mode – tears down connections
NORM = Normal mode
Default value: NORM

pst Identifies the primary state of the endpoint.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: IS

pst Identifies (in RTRV output) the primary state, and primary state qualifier, of the endpoint.

Type: enum
Range: IS-NR = In-Service, Normal
IS-RST = In-Service, Reset
OOS-ANR = Out-Of-Service, Abnormal
OOS-AU = Out-Of-Service, Autonomous
OOS-AUMA = Out-Of-Service, Autonomous and Managed
OOS-MA = Out-Of-Service, Managed
OOS-MAANR = Out-Of-Service, Managed and Abnormal
Default value: none

sst Identifies (in RTRV output) the secondary state of the endpoint.

Range: BLKD = Blocked
BUSY = Busy
IDLE = Idle
INHIP = Inhibit in Progress
INXT = Inconsistent
SGEO = Supporting Entity Outage
TRANS = Transient
UEQ = Unequipped
Default value: none

Input Examples:

```
DLT-MGCP-LINE::1-1;

ED-MGCP-LINE::1-1:::MGCPLNGRPID=1,ENDPTNAME=aaln/S1,
   NAME=NULL,LINETYPE=AALN,CMDMODE=NORM:IS;

ENT-MGCP-LINE::1-1:::MGCPLNGRPID=1,ENDPTNAME=aaln/S1,
   NAME=NULL,LINETYPE=AALN,CMDMODE=NORM:IS;

RTRV-MGCP-LINE::1-1;
```

Output Example:

```
   telica 2004-06-14 14:37:49
M  0 COMPLD
   "1-1:MGCPLNGRPID=1,ENDPTNAME=aaln/S1,NAME=NULL,
      LINETYPE=AALN,CMDMODE=NORM:IS-NR,IDLE"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-MGCP-LNGRP

Commands:

DLT-MGCP-LNGRP: Delete MGCP Line Group

ED-MGCP-LNGRP: Edit MGCP Line Group

ENT-MGCP-LNGRP: Enter MGCP Line Group

RTRV-MGCP-LNGRP: Retrieve MGCP Line Group

Descriptions:

DLT-MGCP-LNGRP lets the user delete an MGCP (Media Gateway Controller Protocol) line group.

ED-MGCP-LNGRP lets the user change the parameters associated with a line group on an MGCP (Media Gateway Controller Protocol) gateway. Use this command to change the line group's name, method by which lines are allocated, amount of echo cancellation (echo tail) for outgoing calls, whether echo cancellation processing is required, the SDP profile, the type of action taken when transitioning from IS to OOS, and the primary state.

ENT-MGCP-LNGRP lets the user establish the parameters associated with a line group on an MGCP (Media Gateway Controller Protocol) gateway. Use this command to establish the line group's name, method by which lines are allocated, amount of echo cancellation (echo tail) for outgoing calls, whether echo cancellation processing is required, the SDP profile, the type of action taken when transitioning from IS to OOS, and the primary state.

RTRV-MGCP-LNGRP lets the user retrieve the parameters associated with a line group on an MGCP (Media Gateway Controller Protocol) gateway, including the line group's name, method by which lines are allocated, amount of echo cancellation (echo tail) for outgoing calls, whether echo cancellation processing is required, the SDP profile, the type of action taken when transitioning from IS to OOS, and the primary and secondary states.

Category: Signaling **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-MGCP-LNGRP:[TID]:<mgcplngrpid>:[CTAG];

ED-MGCP-LNGRP:[TID]:<mgcplngrpid>:[CTAG]::
   [NAME=<name>],[HUNTING=<hunting>],
   [ECHOCTRL=<echocntrl>],[LONGDELAY=<longdelay>],
   [SDPPRFL=<sdpprfl>],[CMDMODE=<cmdmode>]:[<pst>];

ENT-MGCP-LNGRP:[TID]:<mgcplngrpid>:[CTAG]::
   [NAME=<name>],[HUNTING=<hunting>],
   [ECHOCTRL=<echocntrl>],[LONGDELAY=<longdelay>],
   [SDPPRFL=<sdpprfl>],[CMDMODE=<cmdmode>]:[<pst>];

RTRV-MGCP-LNGRP:[TID]:[<mgcplngrpid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<mgcplineid>:NAME=<name>,HUNTING=<hunting>,
      ECHOCTRL=<echocntrl>,LONGDELAY=<longdelay>,
      SDPPRFL=<sdpprfl>,CMDMODE=<cmdmode>:<pst>,<sst>"
;
```

Parameters:

mgcpLnGrpId Identifies the AID as an MGCP line group; that is, a logical interface number associated with a set of MGCP lines (endpoints). A null value (in RTRV) is equivalent to “ALL”; that is, by leaving the field blank, the system retrieves data for all MGCP line groups configured in the system. A range of line groups can be shown (in RTRV) by the beginning and ending numbers separated by two ampersands and a hyphen (“&&-”).

Type: integer
Range: {1-100000}
Default value: none

name Identifies a description (or remarks) for the line group.

Type: string
Range: up to eight characters
Default value: NULL

hunting Identifies the method by which lines are allocated.

Type: enum
Range: ASCENDING = Allocates the lowest numbered available endpoint in a numbered list of endpoints.
CIRCULAR = Allocates the next free endpoint, in ascending order, following the last endpoint selected.
DESCENDING = Allocates the highest numbered available endpoint in a numbered list of endpoints.
RANDOM = Allocates the next free channel, in ascending order, based on a random entry into a numbered list of resources. After the first allocation from that numbered list of resources, subsequent attempts to find a free resource use the circular method.
Default value: CIRCULAR

echocntrl Identifies the amount, in milliseconds, of echo cancellation for outgoing calls.

Type: integer
Range: {0-128}
Default value: 0

longdelay Identifies whether echo cancellation processing is required because of a long delay (echo tail).

Type: BoolYN
Range: N = echo processing is off (for short-haul; i.e., less than 15 msec propagation delay)
Y = echo processing is on (for long-haul)
Default value: Y

sdpprfl Identifies the SDP profile, comprising the preferred codec, packet time and silence suppression mode.

Type: integer
Range: {1-255}
Default value: 1

cmdmode Identifies the type of action taken when transitioning from IS to OOS.

Type: enum
Range: FRCD = Forced mode – tears down connections
NORM = Normal mode
Default value: NORM

pst Identifies the primary state of the line group.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: IS

pst Identifies (in RTRV output) the primary state, and primary state qualifier, of the line group.

Type: enum
Range: IS-NR = In-Service, Normal
IS-RST = In-Service, Reset
OOS-ANR = Out-Of-Service, Abnormal
OOS-AU = Out-Of-Service, Autonomous
OOS-AUMA = Out-Of-Service, Autonomous and Managed
OOS-MA = Out-Of-Service, Managed
OOS-MAANR = Out-Of-Service, Managed and Abnormal
Default value: none

sst Identifies (in RTRV output) the secondary state of the line group.

Range: BLKD = Blocked
BUSY = Busy
IDLE = Idle
INHIP = Inhibit in Progress
INXT = Inconsistent
SGEO = Supporting Entity Outage
TRANS = Transient
UEQ = Unequipped
Default value: none

Input Examples:

```
DLT-MGCP-LNGRP::1;

ED-MGCP-LNGRP::1:::NAME=NULL,HUNTING=CIRCULAR,
   ECHOCNTRL=0,LONGDELAY=Y,SDPPRFL=1,CMDMODE=NORM:IS;

ENT-MGCP-LNGRP::1:::HUNTING=CIRCULAR,ECHOCNTRL=0,
   LONGDELAY=Y,SDPPRFL=1,CMDMODE=NORM:IS;

RTRV-MGCP-LNGRP::1;
```

Output Example:

```
   telica 2004-06-14 14:37:49
M  0 COMPLD
   "1:NAME=NULL,ENDPTNAME=NULL,HUNTING=CIRCULAR,
      ECHOCNTRL=0,LONGDELAY=Y,SDPPRFL=1,CMDMODE=NORM:
      IS-NR,IDLE"
;
```

Related Commands: none

ED/RTRV-MGCP-SYS

Commands:

ED-MGCP-SYS: Edit MGCP System

RTRV-MGCP-SYS: Retrieve MGCP System

Descriptions:

ED-MGCP-SYS lets the user change the signaling port number for MGCP (Media Gateway Controller Protocol) within the switch.

RTRV-MGCP-SYS lets the user retrieve signaling port number for MGCP (Media Gateway Controller Protocol) within the switch.

Category: Signaling **Security:** SA for ED, View for RTRV

Input Formats:

```
ED-MGCP-SYS:[TID]:[<src>]:[CTAG]::[PORT=<port>];
RTRV-MGCP-SYS:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:PORT=<port>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

port Identifies the receive signaling port for the MGCS system, which must be the same on all media gateways controlled by the switch. A null value means no change to the current value. The factory default is “2727”.

Type: integer
Range: {1025-65535}
Default value: not applicable

Input Examples:

```
ED-MGCP-SYS:::::PORT=2727;

RTRV-MGCP-SYS;
```

Output Example:

```
   telica 2004-06-14 14:37:49
M  0 COMPLD
   "COM:PORT=2727"
;
```

Related Commands: none

INIT-MGCP-LINE

Command:

INIT-MGCP-LINE: Initialize MGCP Line

Description:

INIT-MGCP-LINE lets the user initialize (reset) a line (i.e., endpoint) on an MGCP (Media Gateway Controller Protocol) gateway.

Category: Signaling **Security:** SA

Input Format:

```
INIT-MGCP-LINE:[TID]:<mgcplineid>:[CTAG];
```

Output Format: none

Parameters:

mgcplineid Identifies the AID as a line (i.e., endpoint) in an MGCP gateway. The pattern is a combination of a gateway controlled under the Call Management Server (CMS) and the affected endpoint.

Type: MgcpLineAid
Range: <gatewayId>-<lineId>, where
gatewayId = {1-100000} and
lineId = {1-65536}
Default value: none

Input Example:

```
INIT-MGCP-LINE::1-1;
```

Related Commands: none

INIT-REG-MGCPMSG / RTRV-PM-MGCPMSG

Commands:

INIT-REG-MGCPMSG: Initialize Register MGCP Message

RTRV-PM-MGCPMSG: Retrieve Performance Monitors MGCP Message

Descriptions:

INIT-REG-MGCPMSG lets the user initialize one or more storage registers or event counters for MGCP (Media Gateway Controller Protocol) message statistics.

RTRV-PM-MGCPMSG lets the user retrieve current and historical performance data related to MGCP (Media Gateway Controller Protocol) messages.

Category: Signaling **Security:** NSA for INIT-REG, View for RTRV-PM

Input Formats:

```
INIT-REG-MGCPMSG:[TID]:[<src>]:[CTAG]::[<montype>],
   [<monval>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

```
RTRV-PM-MGCPMSG:[TID]:[<src>]:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<src>:<montype>,<monval>,[<vldty>],[<locn>],
      [<dirn>],[<tmper>],[<mondat>],[<montm>]"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

montype Identifies a type of monitored parameter for MGCP messages.

Type: enum

Range: 100-PENDING-RX = Pending: the number of received messages that a transaction is currently in process.
100-PENDING-TX = Pending: the number of transmitted messages that a transaction is currently in process.
101-QUEUED-RX = Pending: the number of received messages that a transaction is currently waiting.
101-PENDING-TX = Pending: the number of transmitted messages that a transaction is currently waiting.
200-OK-RX = OK: the number of received messages indicating normal completion of a transaction.
200-OK-TX = OK: the number of transmitted messages indicating normal completion of a transaction.
250-CONNDEL-RX = Connection Deleted: the number of received messages indicating that a connection has been successfully deleted.
250-CONNDEL-TX = Connection Deleted: the number of transmitted messages indicating that a connection has been successfully deleted.
400-TRANSERROR-RX = Transient Error: the number of received messages indicating the specified transaction could not be executed due to an unspecified transient error.
400-TRANSERROR-TX = Transient Error: the number of transmitted messages indicating the specified transaction could not be executed due to an unspecified transient error.
401-OFFHOOK = Off Hook: the number of messages sent from a gateway to the switch indicating that the phone is already off-hook, typically in response to an RQNT (Request Notification) message for off-hook.
402-ONHOOK = On Hook: the number of messages sent from a gateway to the switch indicating that the phone is already on-hook, typically in response to an RQNT (Request Notification) message for on-hook.
403-NORESOURCES-RX = No Resources: the number of received messages indicating the specified transaction could not be executed due to inadequate resources.
403-NORESOURCES-TX = No Resources: the number of transmitted messages indicating the specified transaction could not be executed due to inadequate resources.
404-NOBANDWIDTH-RX = No Bandwidth: the number of received messages indicating the specified transaction could not be executed due to inadequate bandwidth.

404-NOBANDWIDTH-TX = No Bandwidth: the number of transmitted messages indicating the specified transaction could not be executed due to inadequate bandwidth.

405-ENDPTRESTARTING = Endpoint Restarting: the number of messages sent from a gateway to the switch indicating the specified transaction could not be executed because the endpoint (line) is restarting.

406-TRANSTIMEOUT-RX = Transaction Timeout: the number of received messages indicating that a transaction did not complete in a specified period of time and has been aborted.

406-TRANSTIMEOUT-TX = Transaction Timeout: the number of transmitted messages indicating that a transaction did not complete in a specified period of time and has been aborted.

407-TRANSABORT-RX = Transaction Timeout: the number of received messages indicating that a transaction was aborted due to an external event, such as receipt of a DLCX (Delete Connection) message.

407-TRANSABORT-TX = Transaction Timeout: the number of transmitted messages indicating that a transaction was aborted due to an external event, such as receipt of a DLCX (Delete Connection) message.

409-OVERLOAD-RX = Overload: the number of received messages indicating that a transaction did not complete due to internal overload.

409-OVERLOAD-TX = Overload: the number of transmitted messages indicating that a transaction did not complete due to internal overload.

410-ENDPTNOTAVAIL = Endpoint Not Available: the number of messages sent from a gateway to the switch indicating that a transaction could not be executed because no endpoint was available to satisfy a valid “any of” request.

500-ENDPTUNKNOWN-RX = Endpoint Unknown: the number of received messages indicating that a transaction could not be executed because the endpoint is unknown.

500-ENDPTUNKNOWN-TX = Endpoint Unknown: the number of transmitted messages indicating that a transaction could not be executed because the endpoint is unknown.

501-ENDPTNOTREADY-RX = Endpoint Not Ready: the number of received messages indicating that a transaction could not be executed because the endpoint is not ready.

501-ENDPTNOTREADY-TX = Endpoint Not Ready: the number of transmitted messages indicating that a transaction could not be executed because the endpoint is not ready.

502-ENDPTNORESOURCE = Endpoint No Resource: the number of messages sent from a gateway to the switch indicating that a transaction could not be executed because the endpoint does not have sufficient resources.

503-WILDCARD-RX = Wildcard: the number of received messages indicating that a transaction could not be executed because the “all of” wildcard was too complicated.

503-WILDCARD-TX = Wildcard: the number of transmitted messages indicating that a transaction could not be executed because the “all of” wildcard was too complicated.

504-CMDNOTSUPP-RX = Command Not Supported: the number of received messages indicating that a transaction could not be executed because the command was not supported.

504-CMDNOTSUPP-TX = Command Not Supported: the number of transmitted messages indicating that a transaction could not be executed because the command was not supported.

505-REMCXDSCNOTSUPP = Remote Connection Descriptor Not Supported: the number of messages sent from a gateway to the switch indicating that a transaction could not be executed because one or more mandatory parameters in the Remote Connection Description message are not supported.

506-LCLCXOPTCONFLICT = Local Connection Options Conflict: the number of messages sent from a gateway to the switch indicating that a transaction could not be executed because of conflicting parameters in the Local Connection Options and Remote Connection Descriptor messages.

507-GENNOTSUPP-RX = Generation Not Supported: the number of received messages indicating that a transaction could not be executed because it contained unsupported functionality.

507-GENNOTSUPP-TX = Generation Not Supported: the number of transmitted messages indicating that a transaction could not be executed because it contained unsupported functionality.

508-QUARNOTSUPP = Quarantine Not Supported: the number of messages sent from a gateway to the switch indicating that a transaction could not be executed because the quarantine handling was unknown or unsupported.

509-REMCXDSCERROR = Remote Connection Descriptor Error: the number of messages sent from a gateway to the switch indicating that a transaction could not be executed because there was a syntax or other error in the Remote Connection Description message.

510-PROTERROR-RX = Protocol Error: the number of received messages indicating that a transaction could not be executed because a protocol error was detected.

510-PROTERROR-TX = Protocol Error: the number of transmitted messages indicating that a transaction could not be executed because a protocol error was detected.

511-EXTUNKNOWN-RX = Extension Unknown: the number of received messages indicating that a transaction could not be executed because it contained an unrecognized extension.

511-EXTUNKNOWN-TX = Extension Unknown: the number of transmitted messages indicating that a transaction could not be executed because it contained an unrecognized extension.

512-EVENTNOTSUPP = Event Not Supported: the number of messages sent from a gateway to the switch indicating that a transaction could not be executed because the gateway is not equipped to detect one of the requested events.

513-SIGNALNOTSUPP = Signal Not Supported: the number of messages sent from a gateway to the switch indicating that a transaction could not be executed because the gateway is not equipped to generate one of the requested signals.

514-ANNCNOTSUPP = Annoucement Not Supported: the number of messages sent from a gateway to the switch indicating that a transaction could not be executed because the gateway cannot send the specified announcement.

515-CONNIDINVAL-RX = Connection ID Invalid: the number of received messages indicating that a transaction could not be executed because it refers to an invalid connection ID (may have been deleted).

515-CONNIDINVAL-TX = Connection ID Invalid: the number of transmitted messages indicating that a transaction could not be executed because it refers to an invalid connection ID (may have been deleted).

516-CALLIDUNKNOWN-RX = Call ID Unknown: the number of received messages indicating that a transaction could not be executed because it refers to an unknown call ID.

516-CALLIDUNKNOWN-TX = Call ID Unknown: the number of transmitted messages indicating that a transaction could not be executed because it refers to an unknown call ID.

517-MODENOTSUPP = Mode Not Supported: the number of messages sent from a gateway to the switch indicating that a transaction could not be executed because it refers to an unsupported or invalid mode.

518-PKGNOTSUPP-RX = Package Not Supported: the number of received messages indicating that a transaction contained a reference to an unknown or unsupported package.

518-PKGNOTSUPP-TX = Package Not Supported: the number of transmitted messages indicating that a transaction contained a reference to an unknown or unsupported package.

519-NODIGITMAP = No Digit Map: the number of messages sent from a gateway to the switch indicating that the endpoint does not have a digit map, typically in response to an RQNT (Request Notification) message from the switch to accumulate digits according to a digit map that is not provided in the RQNT message.

520-ENDPTRESTARTING = Endpoint Restarting: the number of messages sent from a gateway to the switch indicating that a transaction could not be executed because the endpoint is restarting.

521-ENDPTREDIR = Endpoint Redirected: the number of messages sent from a gateway to the switch indicating that a transaction was ignored because the endpoint has been redirected to another call agent.

522-EVSIGINVAL-RX = Event Signal Invalid: the number of received messages indicating that a transaction contained a reference to a package that is unknown or unsupported.

522-EVSIGINVAL-TX = Event Signal Invalid: the number of transmittted messages indicating that a transaction contained a reference to a package that is unknown or unsupported.

523-ACTIONINVAL = Action Invalid: the number of messages sent from a gateway to the switch indicating that a transaction could not be executed due to an unknown action or combination of actions.

524-LCLCXOPTINXT = Local Connection Options Inconsistent: the number of messages sent from a gateway to the switch indicating that a CRCX (Create Connection) or MDCX (Modify Connection) transaction could not be executed because of an internal inconsistency in the Local Connection Options message.

525-LCLCXOPTEXTUNKNOWN = Local Connection Options Extension Unknown: the number of messages sent from a gateway to the switch indicating that a CRCX (Create Connection) or MDCX (Modify Connection) transaction could not be executed because of an unknown extension in the Local Connection Options message.

526-NOBANDWIDTH-RX = No Bandwidth: the number of received messages indicating that a transaction could not be executed due to insufficient bandwidth.

526-NOBANDWIDTH-TX = No Bandwidth: the number of transmitted messages indicating that a transaction could not be executed due to insufficient bandwidth.

527-NOREMCXDSC = No Remote Connection Descriptor: the number of messages sent from a gateway to the switch indicating that a CRCX (Create Connection) or MDCX (Modify Connection) transaction could not be executed because no Remote Connection Descriptor message has been provided.

528-PROTVERSIONINCOMPAT-RX = Protocol Version Incompatibility: the number of received messages indicating that a transaction could not be executed because a protocol version incompatibility was detected.

528-PROTVERSIONINCOMPAT-TX = Protocol Version Incompatibility: the number of transmitted messages indicating that a transaction could not be executed because a protocol version incompatibility was detected.

529-HWFAILURE-RX = Hardware Failure: the number of received messages indicating that a transaction could not be executed due to an internal hardware failure.

529-HWFAILURE-TX = Hardware Failure: the number of transmitted messages indicating that a transaction could not be executed due to an internal hardware failure.

530-CASSIGERROR-RX = CAS Signaling Error: the number of received messages indicating that a transaction could not be executed due to a CAS signaling protocol error.

530-CASSIGERROR-TX = CAS Signaling Error: the number of transmitted messages indicating that a transaction could not be executed due to a CAS signaling protocol error.

531-TKGRPFAILURE-RX = Trunk Group Failure: the number of received messages indicating that a transaction could not be executed due to a trunk group facility failure.

531-TKGRPFAILURE-TX = Trunk Group Failure: the number of transmitted messages indicating that a transaction could not be executed due to a trunk group facility failure.

532-LCLCXOPTVALNOTSUPP = Local Connection Options Value Not Supported: the number of messages sent from a gateway to the switch indicating that a CRCX (Create Connection) or MDCX (Modify Connection) transaction could not be executed because of an unsupported value in the Local Connection Options message.

533-RESPTOOBIG-RX = Response Too Big: the number of received messages indicating that a transaction could not be executed because the response was too large.

533-RESPTOOBIG-TX = Response Too Big: the number of transmitted messages indicating that a transaction could not be executed because the response was too large.

534-CODECNEGFAIL-RX = Codec Negotiation Failure: the number of received messages indicating that a transaction could not be executed because of codec negotiation failure.

534-CODECNEGFAIL-TX = Codec Negotiation Failure: the number of transmitted messages indicating that a transaction could not be executed because of codec negotiation failure.

535-PTIMENOTSUPP-RX = Packetization Time Not Supported: the number of received messages indicating that a transaction could not be executed because the packetization period is not supported.

535-PTIMENOTSUPP-TX = Packetization Time Not Supported: the number of transmitted messages indicating that a transaction could not be executed because the packetization period is not supported.

536-RESTARTMETHODNOTSUPP = Restart Method Not Supported: the number of messages sent from the switch to a gateway indicating that a transaction could not be executed because it contained an unknown or unsupported restart method.

537-DIGITMAPEXTNOTSUPP = Digit Map Extension Not Supported: the number of messages sent from the switch to a gateway indicating that a transaction could not be executed because it contained an unknown or unsupported digit map extension.

538-EVSIGERROR-RX = Event or Signal Error: the number of received messages indicating that a transaction could not be executed because there was an error in an event or signal parameter.

538-EVSIGERROR-TX = Event or Signal Error: the number of transmitted messages indicating that a transaction could not be executed because there was an error in an event or signal parameter.

539-PARAMNOTSUPP-RX = Parameter Not Supported: the number of received messages indicating that a transaction could not be executed because a parameter other than a package or vendor extension is not supported.

539-PARAMNOTSUPP-TX = Parameter Not Supported: the number of transmitted messages indicating that a transaction could not be executed because a parameter other than a package or vendor extension is not supported.

540-ENDPTCXLIMIT-RX = Endpoint Connection Limit: the number of received messages indicating that a transaction could not be executed because the endpoint connection limit has been exceeded.

540-ENDPTCXLIMIT-TX = Endpoint Connection Limit: the number of transmitted messages indicating that a transaction could not be executed because the endpoint connection limit has been exceeded.

541-LCLCXOPTNOTSUPP = Local Connection Options Inconsistent: the number of messages sent from a gateway to the switch indicating that a CRCX (Create Connection) or MDCX (Modify Connection) transaction could not be executed because of an invalid or unsupported Local Connection Options message.

ALL = All monitored parameters

AUCX = Audit Connection: the number of AuditEndpoint messages sent by the switch to gateways to request information on specific connections established on their endpoints. These messages are optional from a call-processing point of view.

AUEP = Audit Endpoint: the number of AuditEndpoint messages sent by the switch to gateways to request information on capabilities of their endpoints. These messages are optional from a call-processing point of view.

CRCX = Create Connection: the number of CreateConnection messages sent by the switch to gateways to create connections on endpoints managed by that gateway.

DLCX = Delete Connection: the number of DeleteConnection messages that can be sent to or from the switch. Typically, DLCX messages are sent by the switch to gateways to tear down existing connections on endpoints managed by that gateway.

MDCX = Modify Connection: the number of ModifyConnection messages sent by the switch to gateways to modify existing connections on endpoints managed by that gateway.

MGCPTERMS = MGCP Terminations: the number of existing standing calls; i.e., the number of current active calls on MGCP connections.

NTFYDIGITS = Notify Digits: the number of messages sent by gateways to the switch to indicate that digits have been collected (typically, accumulated according to a digit map provided by the switch).

NTFYOFFHOOK = Notify Off Hook: the number of messages sent by gateways to the switch to indicate that a phone managed by that gateway has gone off-hook.

NTFYONHOOK = Notify On Hook: the number of messages sent by gateways to the switch to indicate that a phone managed by that gateway has gone on-hook

NTFYOTHER = Notify Other: the number of all other notification messages, which report any event for which the switch has requested notification.

RETRANSMITS = Retransmits: the number of retransmitted messages that the switch has sent to gateways due to failures of previous attempts to send the message. A high or fast-growing value indicates potential network problems.

RQNT = Request Notification: the number of RequestNotification messages sent by the switch to gateways.
RSIPOTHER = Restart In Progess – Other: the number of RestartInProgess messages received by the switch from gateways – including forced, disconnect, graceful and cancel-graceful RSIP messages
RSIPRESTART = Restart In Progess – Restart: the number of RestartInProgess-Restart messages received by the switch from gateways.
TIMEOUTS = Timeouts: the number of message or transaction timeouts; i.e., messages of any type that the switch has attempted to send to a gateway but has not received a response after a number of retransmit attempts. A high or fast-growing value indicates potential network problems.

Default value: ALL

monval Identifies the monitored value as either the value to which the register identified by *montype* is to be initialized (for INIT-REG), or (for RTRV-PM output) the measured value of the monitored parameter. The value is in the form of numeric counts or rates. This parameter is presently not supported; leave it blank.

Type: integer
Range: {0-2147483647}
Default value: 0

monlev Identifies (for RTRV-PM input) the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

vldty Identifies (for RTRV-PM output) the validity of the monitored interval; that is, whether the information for the specified time period was accumulated over the entire time period or some portion of it. This parameter is not supported presently; its value will be “NULL”.

Type: enum
Range: ADJ = Data manually adjusted or initialized
COMPL = Data accumulated over the entire time period
LONG = Data accumulated over greater than the entire time period
NA = Data not available
PRTL = Data accumulated over a portion of the time period
Default value: not applicable for output

locn Identifies the location of the storage counters to be initialized. This parameter is presently not supported; leave it blank.

Type: Location
Range: FEND = Far end
NEND = Near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters relative to the switch. This parameter is presently not supported; leave it blank.

Type: Direction
Range: BTH = Both directions
RCV = Receive direction only
TRMT = Transmit direction only
Default value: BTH

tmper Identifies the accumulation period for performance counters. The only values currently allowed for *tmper* are "15-MIN" and "24-HR". A null value defaults to both applicable accumulation periods. This parameter is presently not supported; leave it blank.

Type: TimePeriod
Range: {1}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)
Default value: both 15-MIN and 24-HR

mondat Identifies the monitored date. The value indicates the beginning date for the performance-monitoring or storage register period defined by *tmper*. The format is MM-DD. This parameter is presently not supported; leave it blank.

Type: MonitoredDate
Range: {1-12}-{1-31}
Default value: current date

montm Identifies the monitored time. The value indicates the beginning time of day for the performance-monitoring or storage register period defined by *tmper*. The format is HH-MM. This parameter is presently not supported; leave it blank.

Type: MonitoredTime
Range: {0-23}-{0-59}
Default value: current time

Input Examples:

```
INIT-REG-MGCPMSG;
RTRV-PM-MGCPMSG;
```

Output Example:

```
   telica 2004-06-14 14:37:49
M  0 COMPLD
   "COM:MGCPTERMS,10000"
   "COM:CRCX,99999"
;
```

Related Commands: none

RTRV-STATUS-MGCPGW

Command:

RTRV-STATUS-MGCPGW: Retrieve Status MGCP Gateway

Description:

RTRV-STATUS-MGCPGW lets the user retrieve the IP address of an MGCP (Media Gateway Controller Protocol) gateway when the gateway has been provisioned by its fully qualified domain name (the value of the parameter nametype in ENT-MGCP-GW is “FQDN”).

Category: Signaling **Security:** View

Input Format:

```
RTRV-STATUS-MGCPGW:[TID]:<gatewayId>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<gatewayId>:[IPADDR=<ipaddr>]"
;
```

Parameters:

gatewayId Identifies the AID as the gateway controlled under the Call Management Server (CMS).

Type: integer
Range: {1-100000}
Default value: none

ipAddr Identifies the IP address for the MGCP gateway.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

Input Example:

```
RTRV-STATUS-MGCPGW::1;
```

Output Example:

```
   telica 2004-06-14 14:37:49
M  0 COMPLD
   "1:IPADDR=110.13.116.126"
;
```

Related Commands:

DLT/ED/ENT/RTRV-MGCP-GW

NOTES

DLT/ED/ENT/RTRV-AUDIO-ANNC

Commands:

DLT-AUDIO-ANNC: Delete Audio Announcement

ED-AUDIO-ANNC: Edit Audio Announcement

ENT-AUDIO-ANNC: Enter Audio Announcement

RTRV-AUDIO-ANNC: Retrieve Audio Announcement

Descriptions:

DLT-AUDIO-ANNC lets the user delete an audio announcement.

ED-AUDIO-ANNC lets the user edit the parameters associated with an audio announcement.

ENT-AUDIO-ANNC lets the user establish an audio announcement.

RTRV-AUDIO-ANNC lets the user retrieve parameters associated with an audio announcement.

Category: Resource Provisioning **Security:** NSA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-AUDIO-ANNC:[TID]:<AnnouncementId>:[CTAG];

ED-AUDIO-ANNC:[TID]:<AnnouncementId>:[CTAG]::
   [NAME=<Name>],[DESC=<Description>],
   [MSGLIST=<MsgList>],[RPTCNT=<RepeatCnt>];

ENT-AUDIO-ANNC:[TID]:<AnnouncementId>:[CTAG]::
   NAME=<Name>,DESC=<Description>,MSGLIST=<MsgList>,
   [RPTCNT=<RepeatCnt>];

RTRV-AUDIO-ANNC:[TID]:[<AnnouncementId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<AnnouncementId>:[NAME=<Name>],
      [DESCR=<Description>],[MSGLIST=<MsgList>],
      RPTCNT=<RepeatCnt>"
;
```

Parameters:

AnnouncementId Identifies the AID as an audio announcement. You cannot establish, change, or delete announcements 1-2999; they are already-configured standard announcements. Identifiers 3000-32766 are for user-supplied custom announcements. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, attributes for all audio announcements configured in the system will be returned.

Type: AnnouncementId
Range: {1-32766}
Default value: none

Name Identifies the name of the audio announcement.

Type: string
Range: up to 40 alphanumeric characters (including underscores "_")
Default value: none

Description Identifies the description of the audio announcement.

Type: string
Range: up to 80 alphanumeric characters (including underscores "_")
Default value: none

MsgList Identifies the messages comprising the announcement in play order. Messages are identified by instances of *AudioMsgAid*, as established by ENT-AUDIO-MSG, separated by dashes ("-").

Type: string
Range: up to 80 alphanumeric characters (including underscores "_")
Default value: none

RepeatCnt Identifies the number of times to repeat the audio announcement. A value of "0" indicates continuous repetition. This parameter is not supported presently; leave it blank

Type: integer
Range: {0-999}
Default value: 1

Input Examples:

```
DLT-AUDIO-ANNC::3001;

ED-AUDIO-ANNC::3001:::NAME=AUDIO1,DESC=AUDIOFILE1,
   MSGLIST=100-110;

ENT-AUDIO-ANNC::3001:::NAME=AUDIO1,DESC=AUDIOFILE1,
   MSGLIST=100-110;

RTRV-AUDIO-ANNC::3001;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "3001:NAME=AUDIO1,DESC=AUDIOFILE1,MSGLIST=100-110,
      RPTCNT=1"
;
```

Related Commands:

```
DLT/ED/ENT/RTRV-ANNC-MAP
DLT/ED/ENT/RTRV-AUDIO-MSG
```

DLT/ED/ENT/RTRV-AUDIO-ANNC

Commands:

DLT-AUDIO-ANNC: Delete Audio Announcement

ED-AUDIO-ANNC: Edit Audio Announcement

ENT-AUDIO-ANNC: Enter Audio Announcement

RTRV-AUDIO-ANNC: Retrieve Audio Announcement

Descriptions:

DLT-AUDIO-ANNC lets the user delete an audio announcement.

ED-AUDIO-ANNC lets the user edit the parameters associated with an audio announcement.

ENT-AUDIO-ANNC lets the user establish an audio announcement.

RTRV-AUDIO-ANNC lets the user retrieve parameters associated with an audio announcement.

Category: Resource Provisioning **Security:** NSA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-AUDIO-ANNC:[TID]:<AnnouncementId>:[CTAG];

ED-AUDIO-ANNC:[TID]:<AnnouncementId>:[CTAG]::
   [NAME=<Name>],[DESC=<Description>],
   [MSGLIST=<MsgList>],[RPTCNT=<RepeatCnt>];

ENT-AUDIO-ANNC:[TID]:<AnnouncementId>:[CTAG]::
   NAME=<Name>,DESC=<Description>,MSGLIST=<MsgList>,
   [RPTCNT=<RepeatCnt>];

RTRV-AUDIO-ANNC:[TID]:[<AnnouncementId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<AnnouncementId>:[NAME=<Name>],
      [DESCR=<Description>],[MSGLIST=<MsgList>],
      RPTCNT=<RepeatCnt>"
;
```

Parameters:

AnnouncementId Identifies the AID as an audio announcement. You cannot establish, change, or delete announcements 1-2999; they are already-configured standard announcements. Identifiers 3000-32766 are for user-supplied custom announcements. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, attributes for all audio announcements configured in the system will be returned.

Type: AnnouncementId
Range: {1-32766}
Default value: none

Name Identifies the name of the audio announcement.

Type: string
Range: up to 40 alphanumeric characters (including underscores "_")
Default value: none

Description Identifies the description of the audio announcement.

Type: string
Range: up to 80 alphanumeric characters (including underscores "_")
Default value: none

MsgList Identifies the messages comprising the announcement in play order. Messages are identified by instances of *AudioMsgAid*, as established by ENT-AUDIO-MSG, separated by dashes ("-").

Type: string
Range: up to 80 alphanumeric characters (including underscores "_")
Default value: none

RepeatCnt Identifies the number of times to repeat the audio announcement. A value of "0" indicates continuous repetition. This parameter is not supported presently; leave it blank

Type: integer
Range: {0-999}
Default value: 1

Input Examples:

```
DLT-AUDIO-ANNC::3001;

ED-AUDIO-ANNC::3001:::NAME=AUDIO1,DESC=AUDIOFILE1,
   MSGLIST=100-110;

ENT-AUDIO-ANNC::3001:::NAME=AUDIO1,DESC=AUDIOFILE1,
   MSGLIST=100-110;

RTRV-AUDIO-ANNC::3001;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "3001:NAME=AUDIO1,DESC=AUDIOFILE1,MSGLIST=100-110,
      RPTCNT=1"
;
```

Related Commands:

```
DLT/ED/ENT/RTRV-ANNC-MAP
DLT/ED/ENT/RTRV-AUDIO-MSG
```

DLT/ED/ENT/RTRV-AUDIO-MSG

Commands:

DLT-AUDIO-MSG: Delete Audio Message

ED-AUDIO-MSG: Edit Audio Message

ENT-AUDIO-MSG: Enter Audio Message

RTRV-AUDIO-MSG: Retrieve Audio Message

Descriptions:

DLT-AUDIO-MSG lets the user delete an audio message, provided the audio message is not used in an existing audio announcement

ED-AUDIO-MSG lets the user change the parameters associated with an audio message.

ENT-AUDIO-MSG lets the user establish an audio message.

RTRV-AUDIO-MSG lets the user retrieve parameters associated with an audio message.

Category: Resource Provisioning **Security:** NSA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-AUDIO-MSG:[TID]:<AudioMsgAid>:[CTAG];

ED-AUDIO-MSG:[TID]:<AudioMsgAid>:[CTAG]::
   [NAME=<Name>],[DESC=<Description>],
   [FILE=<FilePath>];

ENT-AUDIO-MSG:[TID]:<AudioMsgAid>:[CTAG]::NAME=<Name>,
   DESC=<Description>,FILE=<FilePath>;

RTRV-AUDIO-MSG:[TID]:[<AudioMsgAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<AudioMsgAid>:[NAME=<Name>],[DESCR=<Description>],
      FILESIZE=<FileSize>"
;
```

Parameters:

AudioMsgAid Identifies the AID as an audio message. The first part of the AID is an integer representing the message identifier; the second part is an optional string representing the language variant of the message. You cannot establish, change, or delete audio messages 1-2999; they are already-configured standard messages. Identifiers 3000-63487 are for custom messages; message identifiers 63488-65535 are reserved for future use. A null value for the language variant defaults to the value of *DefVariant*, if any, specified in ED/RTRV-AUDIO-SYS. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, attributes for all audio messages configured in the system will be returned.

Type: AudioMsgAid
Range: {1-65535}[-<VARIANT>]
Default value: none

Name Identifies the name of the audio message.

Type: string
Range: up to 40 alphanumeric characters (excluding spaces, but including underscores "_")
Default value: none

Description Identifies the description of the audio message.

Type: string
Range: up to 80 alphanumeric characters (excluding spaces, but including underscores "_")
Default value: none

FilePath Identifies (in ED and ENT) the complete path to the file on an external FTP server that contains the audio data for the message.

Type: string
Range: up to 80 alphanumeric characters (excluding spaces, but including underscores "_")
Default value: none

FileSize Identifies (in RTRV output) the size of the audio message file in bytes. Although the range is given as {0-8,388,607}, there is currently a maximum of six MB (value = 6000000). 8000 bytes are approximately one second of audio.

Type: integer
Range: {0-8,388,607}
Default value: none

Input Examples:

```
DLT-AUDIO-MSG::3001;

ED-AUDIO-MSG::3001:::NAME=MSG1,DESC=This_is_a_test,
   FILE=/audioData/MSG1.wav;

ENT-AUDIO-MSG::3001:::NAME=MSG1,DESC=This_is_a_test,
   FILE=/audioData/MSG1.wav;

RTRV-AUDIO-MSG::3001;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "3001:NAME=MSG1,DESC=This_is_a_test,FILESIZE=12000"
;
```

Related Commands:

```
DLT/ED/ENT/RTRV-AUDIO-ANNC
```

ED/RTRV-AUDIO-SYS

Commands:

ED-AUDIO-SYS: Edit Audio System

RTRV-AUDIO-SYS: Retrieve Audio System

Descriptions:

ED-AUDIO-SYS lets the user change the parameters associated with the audio announcement/message system.

RTRV-AUDIO-SYS lets the user retrieve parameters associated with the audio announcement/message system.

Category: Resource Provisioning **Security:** NSA for ED, View for RTRV

Input Formats:

```
ED-AUDIO-SYS:[TID]:[<src>]:[CTAG]::
   [FTPIPADDR=<FtpIpAddr>],[USERNAME=<UserName>],
   [DISKLIMIT=<DiskLimit>],[DEFVARIANT=<DefVariant>]:
   [<Password>];

RTRV-AUDIO-SYS:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:FTPIPADDR=<FtpIpAddr>,USERNAME=<UserName>,
      DISKLIMIT=<DiskLimit>,DEFVARIANT=<DefVariant>"
;
```

Parameters:

src Identifies the AID as the switch. The factory default is “COM”.

Type: COM
Range: COM
Default value: not applicable

FtpIpAddr Identifies, in dotted decimal notation, the IP address of the external FTP server containing the audio message files. The factory default for an invalid IP address is "0.0.0.0".

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: not applicable

UserName Identifies the FTP username used to log in to the FTP server containing the audio message files. The factory default is anonymous FTP login.

Type: string
Range: up to 63 alphanumeric characters (including underscores "_")
Default value: not applicable

DiskLimit Identifies the amount of disk space in kilobytes to allow for use by audio files. This parameter is reserved for future use and, as such, is fixed at its maximum (default) value of 32768.

Type: integer
Range: {0-32768}
Default value: not applicable

DefVariant Identifies the default language variant used when the language variant is not specified by *AudioMsgAid* in ED/ENT-AUDIO-MSG. The factory default is "default" (lower case).

Type: string
Range: up to 63 alphanumeric characters (including underscores "_")
Default value: not applicable

Password Identifies the FTP password used to log in to the FTP server containing the audio message files. The entered password displays as a series of asterisks. There is no factory default.

Type: string
Range: up to 63 alphanumeric characters (including underscores "_")
Default value: not applicable

Input Examples:

```
ED-AUDIO-SYS::::FTPIPADDR=10.0.0.9,USERNAME=LUCENT,
   DEFVARIANT=default:********;

RTRV-AUDIO-SYS;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:FTPIPADDR=10.0.0.9,USERNAME=LUCENT,
      DISKLIMIT=32786,DEFVARIANT=default,ANNCPLAN=US"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-CCC-LIST

Commands:

DLT-CCC-LIST: Delete CCC List

ED-CCC-LIST: Edit CCC List

ENT-CCC-LIST: Enter CCC List

RTRV-CCC-LIST: Retrieve CCC List

Descriptions:

DLT-CCC-LIST lets the user remove the association of a non-active call content channel (CCC) with a CCC list. A CCC, represented by a directory number for a law enforcement agency (LEA), is a dedicated (i.e., permanently connected) channel reserved for use solely on a particular surveillance.

ED-CCC-LIST lets the user change the billing number and state for a call content channel (CCC) on a CCC list. A CCC, represented by a directory number for a law enforcement agency (LEA), is a dedicated (i.e., permanently connected) channel reserved for use solely on a particular surveillance.

ENT-CCC-LIST lets the user establish a call content channel (CCC) on a CCC list. A CCC, represented by a directory number for a law enforcement agency (LEA), is a dedicated (i.e., permanently connected) channel reserved for use solely on a particular surveillance.

RTRV-CCC-LIST lets the user retrieve the billing number and state for a single call content channel (CCC) on a CCC list, all CCCs on a CCC list, or every CCC on all CCC lists in the system.

Category: Call Control

Security: SA (and CALEA-enabled via ED/ENT-USER-SECU) for all commands

Input Formats:

```
DLT-CCC-LIST:[TID]:<ccclistaid>:[CTAG];

ED-CCC-LIST:[TID]:<ccclistaid>:[CTAG]::
   [BILLINGALIAS=<billingalias>]:[<pst>];

ENT-CCC-LIST:[TID]:<ccclistaid>:[CTAG]::
   [BILLINGALIAS=<billingalias>]:[<pst>];

RTRV-CCC-LIST:[TID]:[<ccclistaid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<ccclistaid>:BILLINGALIAS=<billingalias>:<pst>,
      <sst>"
;
```

Parameters:

cccListAid Identifies the AID as a call content channel associated with a specific list of call content channels. The first part of the AID is the numerical identifier for the CCC list and the second part is the CCC. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for every CCC on all CCC lists in the system will be returned. A null value for the second part of the AID (in RTRV) lets the user retrieve the billing number and state for all CCCs on a specified CCC list.

Type: CccListAid
Range: {1-32767}-{up to 21 digits}
Default value: none

billingalias Identifies the billing number applicable to the CCC.

Type: string
Range: up to 21 digits
Default value: NULL

pst Identifies the primary state of the CCC.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: IS

sst Identifies (in RTRV output) the secondary state of the CCC.

Type: enum
Range: BUSY = Busy
IDLE = Idle
Default value: none

Input Examples:

```
DLT-CCC-LIST::2-5083030911;

ED-CCC-LIST::2-5083030911:::BILLINGALIAS=5084800911:
   IS;

ENT-CCC-LIST::2-5083030911:::BILLINGALIAS=5084800911:
   IS;

RTRV-CCC-LIST::2-5083030911;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "2-5083030911:BILLINGALIAS=5084800911:IS,BUSY"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-CDC

Commands:

DLT-CDC: Delete CDC

ED-CDC: Edit CDC

ENT-CDC: Enter CDC

RTRV-CDC: Retrieve CDC

Descriptions:

DLT-CDC lets the user delete a call data channel (CDC). A CDC, represented by an alphanumeric string, is a data communications link that carries call-identifying information from the service provider to law enforcement.

ED-CDC lets the user change the terminating IP address, the terminating port, and the state for a call data channel (CDC). A CDC, represented by an alphanumeric string, is a data communications link that carries call-identifying information from the service provider to law enforcement.

ENT-CDC lets the user establish a call data channel (CDC). A CDC, represented by an alphanumeric string, is a data communications link that carries call-identifying information from the service provider to law enforcement.

RTRV-CDC lets the user retrieve the terminating IP address, the terminating port, and the state either for a single call data channel (CDC), or for all CDCs in the system.

Category: Call Control

Security: SA (and CALEA-enabled via ED/ENT-USER-SECU) for all commands

Input Formats:

```
DLT-CDC:[TID]:<cdcId>:[CTAG];

ED-CDC:[TID]:<cdcId>:[CTAG]::[IPADDR=<ipAddr>],
   [PORT=<port>]:[<pst>];

ENT-CDC:[TID]:<cdcId>:[CTAG]::IPADDR=<ipAddr>,
   PORT=<port>:[<pst>];

RTRV-CDC:[TID]:[<cdcId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<cdcId>:IPADDR=<ipAddr>,PORT=<port>:<pst>"
;
```

Parameters:

cdcId Identifies the AID as a call data channel. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for every CDC in the system will be returned.

Type: string
Range: up to 15 alphanumeric characters
Default value: none

ipAddr Identifies the terminating IP address for the law enforcement agency (LEA) to which the CDC connects.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

port Identifies the terminating port number for the law enforcement agency (LEA) to which the CDC connects.

Type: integer
Range: {1-32767}
Default value: none

pst Identifies the primary state of the CDC.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: IS

Input Examples:

```
DLT-CDC::FBICDC001;
```

```
ED-CDC::FBICDC001:::IPADDR=110.13.116.126,PORT=2020:
   IS;
```

```
ENT-CDC::FBICDC001:::IPADDR=110.13.116.126,PORT=2020:
   IS;
```

```
RTRV-CDC::FBICDC001;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "FBICDC001:IPADDR=110.13.116.126,PORT=2020:IS"
;
```

Related Commands: none

DLT/ENT/RTRV-GMSC-LAESDN

Commands:

DLT-GMSC-LAESDN: Delete GMSC Lawfully Authorized Electronic Surveillance DN

ENT-GMSC-LAESDN: Enter GMSC Lawfully Authorized Electronic Surveillance DN

RTRV-GMSC-LAESDN: Retrieve GMSC Lawfully Authorized Electronic Surveillance DN

Descriptions:

DLT-GMSC-LAESDN lets the user designate a wireless subscriber as no longer being under CALEA surveillance.

ENT-GMSC-LAESDN lets the user designate a wireless subscriber as being under CALEA surveillance. ENT-GMSC-LAESDN will not work unless ENT-SUBSCRIBER has already been issued.

RTRV-GMSC-LAESDN lets the user determine the wireless subscribers under CALEA surveillance.

Category: Call Control

Security: SA (and CALEA-enabled via ED/ENT-USER-SECU) for all commands

Input Formats:

```
DLT-GMSC-LAESDN:[TID]:<subscriberDn>:[CTAG];
ENT-GMSC-LAESDN:[TID]:<subscriberDn>:[CTAG];
RTRV-GMSC-LAESDN:[TID]:[<subscriberDn>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<subscriberDn>"
;
```

Parameters:

subscriberDn Identifies the AID as a wireless subscriber under CALEA surveillance at the home MSC (Mobile Switching Center). A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, all wireless subscribers under CALEA surveillance in the system will be returned.

Type: string
Range: up to 21 digits
Default value: none

Input Examples:

```
DLT-GMSC-LAESDN::5088048202;

ENT-GMSC-LAESDN::5088048202;

RTRV-GMSC-LAESDN;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "5088048202"
   "5084900909"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-LAES-CASE

Commands:

DLT-LAES-CASE: Delete LAES Case

ED-LAES-CASE: Edit LAES Case

ENT-LAES-CASE: Enter LAES Case

RTRV-LAES-CASE: Retrieve LAES Case

Descriptions:

DLT-LAES-CASE lets the user delete a LAES (Lawfully Authorized Electronic Surveillance) case on a specific subscriber.

ED-LAES-CASE lets the user change the call data channel, the billing number, the name, the call content channel, and the state for a LAES (Lawfully Authorized Electronic Surveillance) case on a specific subscriber.

ENT-LAES-CASE lets the user establish a LAES (Lawfully Authorized Electronic Surveillance) case on a specific subscriber. ENT-LAES-CASE will not work unless ENT-SUBSCRIBER and ENT-CDC have already been issued.

RTRV-LAES-CASE lets the user retrieve the call data channel, the billing number, the name, the call content channel, and the state for a LAES (Lawfully Authorized Electronic Surveillance) case on a specific subscriber.

Category: Call Control

Security: SA (and CALEA-enabled via ED/ENT-USER-SECU) for all commands

Input Formats:

```
DLT-LAES-CASE:[TID]:<caseId>:[CTAG];

ED-LAES-CASE:[TID]:<caseId>:[CTAG]::[CDCID=<cdcId>],
   [BILLINGDN=<billingDN>],[CASENAME=<caseName>],
   [CKTOPTIONS=<cktOptions>],[CCCLISTID=<cccListId>]:
   [<pst>];

ENT-LAES-CASE:[TID]:<caseId>:[CTAG]::
   SUBJECTDN=<subjectDN>,CDCID=<cdcId>,
   [BILLINGDN=<billingDN>],[CASENAME=<caseName>],
   [CKTOPTIONS=<cktOptions>],[CCCLISTID=<cccListId>]:
   [<pst>];

RTRV-LAES-CASE:[TID]:[<caseId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<caseId>:SUBJECTDN=<subjectDN>,CDCID=<cdcId>,
      BILLINGDN=<billingDN>,CASENAME=<caseName>,
      CKTOPTIONS=<cktOptions>,CCCLISTID=<cccListId>:
      <pst>"
;
```

Parameters:

caseId Identifies the AID as an LAES case. This identifier is provided by the LEA (Law Enforcement Agency) for whom the case is established. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for every LAES case in the system will be returned.

Type: string
Range: up to 25 alphanumeric characters
Default value: none

subjectDN Identifies the subscriber under surveillance.

Type: string
Range: up to 21 digits
Default value: none

cdcId Identifies the call data channel used for delivering call identifying information.

Type: string
Range: up to 15 alphanumeric characters
Default value: none

billingDN Identifies a valid billing number applicable to the case. This parameter is mandatory when the value of *cktOptions* is “ALLCONTENT”.

Type: string
Range: up to 21 digits
Default value: NULL

caseName Identifies a specific instance of the LAES case.

Type: string
Range: up to 35 alphanumeric characters
Default value: NULL

cktOptions Identifies what to deliver for the case.

Type: enum
Range: ALLCONTENT = deliver both call data and call content
NOCONTENT = deliver call data only
Default value: NOCONTENT

cccListId Identifies the list of CCCs (call content channels) applicable to the case; that is, the list of LEA directory numbers to which call content is delivered.

Type: integer
Range: {1-32767}
Default value: NULL

pst Identifies the primary state of the case.

Type: enum
Range: IS = In-Service
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management)
Default value: IS

Input Examples:

```
DLT-LAES-CASE::FBI-001;

ED-LAES-CASE::FBI-001:::CDCID=FBICDC001,
   BILLINGDN=5083030911,CASENAME=FBI-001-HARRYPOTTER,
   CKTOPTIONS=NOCONTENT,CCCLISTID=NULL:IS;

ENT-LAES-CASE::FBI-001:::SUBJECTDN=5083033636,
   CDCID=FBICDC001,BILLINGDN=5083030911,
   CASENAME=FBI-001-HARRYPOTTER,CKTOPTIONS=NOCONTENT,
   CCCLISTID=NULL:IS;

RTRV-LAES-CASE::FBI-001;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "FBI-001:SUBJECTDN=5083033636,CDCID=FBICDC001,
      BILLINGDN=5083030911,
      CASENAME=FBI-001-HARRYPOTTER,
      CKTOPTIONS=NOCONTENT,CCCLISTID=NULL:IS"
;
```

Related Commands: none

RTRV-PM-CALEA

Command:

RTRV-PM-CALEA: Retrieve Performance Monitors CALEA

Description:

RTRV-PM-CALEA lets the user retrieve the statistics on Call Content Channels (CCCs) and Call Data Channels (CDCs) since the last initialization of the counters.

Category: Call Control

Security: View

Input Format:

```
RTRV-PM-CALEA:[TID]:[<src>]:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

montype Identifies the CALEA performance statistic for which to retrieve the number of occurrences. A null value is equivalent to “ALL”; that is, by leaving the field blank, all CALEA performance statistics will be returned.

Type: enum
Range: ALL = All types
CCCATTEMPT = Number of attempts to establish a CCC
CCCFAILEXT = Number of attempts to establish a CCC that failed due to causes external to the switch
CCCFAILINT = Number of attempts to establish a CCC that failed for reasons internal to the switch
CCCFAILOOS = Number of attempts to establish a CCC that failed because the channel was out of service
CCCSUCCESS = Number of successful attempts to establish a CCC
CDCATTEMPT = Number of attempts to establish a CDC
CDCFAILEXT = Number of attempts to establish a CDC that failed due to causes external to the switch
CDCFAILINT = Number of attempts to establish a CDC that failed for reasons internal to the switch
CDCFAILOOS = Number of attempts to establish a CDC that failed because the channel was out of service
CDCSUCCESS= Number of successful attempts to establish a CDC
Default value: ALL

monval Identifies (for RTRV-PM output) the measured value of the monitored parameter. The value is in the form of numeric counts or rates.

Type: integer
Range: {0-2147483647}
Default value: 0

monlev Indicates the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

vldty Identifies (for RTRV-PM output) the validity of the monitored interval; that is, whether the information for the specified time period was accumulated over the entire time period or some portion of it. This parameter is not supported presently; its value will be "NULL".

Type: enum
Range: ADJ = Data manually adjusted or initialized
COMPL = Data accumulated over the entire time period
LONG = Data accumulated over greater than the entire time period
NA = Data not available
PRTL = Data accumulated over a portion of the time period
Default value: not applicable for output

locn Identifies the location of the storage counters from which to retrieve performance data. This parameter is presently not supported; leave it blank.

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters relative to the switch. This parameter is presently not supported; leave it blank.

Type: enum
Range: BTH = Both directions
RCV = Receive direction only
TRMT = Transmit direction only
Default value: BTH

tmper Identifies the accumulation period for performance counters. The only values currently allowed for *tmper* are "15-MIN" and "24-HR". This parameter is presently not supported; leave it blank.

Type: enum
Range: {1}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)
Default value: 15-MIN

mondat Identifies the monitored date. The value indicates the beginning date for the performance-monitoring or storage register period defined by *tmper*. The format is MM-DD. This parameter is presently not supported; leave it blank.

Type: enum
Range: {1-12}-{1-31}
Default value: current date

montm Identifies the monitored time. The value indicates the beginning time of day for the performance-monitoring or storage register period defined by *tmper*. The format is HH-MM. This parameter is presently not supported; leave it blank.

Type: enum
Range: {0-23}-{0-59}
Default value: current time

Input Example:

```
RTRV-PM-CALEA;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:CCCATEMPT,18"
   "COM:CCCFAILEXT,0"
   "COM:CCCFAILINT,0"
   "COM:CCCFAILOOS,0"
   "COM:CCCSUCCESS,18"
   "COM:CDCATEMPT,97"
   "COM:CDCFAILEXT,0"
   "COM:CDCFAILINT,0"
   "COM:CDCFAILOOS,0"
   "COM:CDCSUCCESS,97"
;
```

Related Commands: none

NOTES

DLT/ENT/RTRV-VMS-CKTID

Commands:

DLT-VMS-CKTID: Delete VMS Circuit Identification

ENT-VMS-CKTID: Enter VMS Circuit Identification

RTRV-VMS-CKTID: Retrieve VMS Circuit Identification

Descriptions:

DLT-VMS-CKTID lets the user delete an association between a DS0 channel in the switch and the Message Line Identifier that identifies the line to which a call is terminated in a Voice Mail System (VMS).

ENT-VMS-CKTID lets the user establish an association between a DS0 channel in the switch and the Message Line Identifier that identifies the line to which a call is terminated in a Voice Mail System (VMS). The Message Line Identifier is a seven-digit number made up of the three-digit Multi-Line Hunt Group (MLHG) identifier and the four-digit MLHG position identifier. An MLHG identifier relates a specific MLHG to an associated SMDI data link (or group of data links). An MLHG position identifier specifies a unique hunt terminal in the MLHG, and provides call history information on an SMDI data link (or group of data links) for calls terminated to that hunt terminal. ENT-VMS-CKTID will not work unless ENT-CAS-LINE or ENT-CAS-TRK has already been issued.

RTRV-VMS-CKTID lets the user retrieve the parameters defining the association between a DS0 channel in the switch and the Message Line Identifier that identifies the line to which a call is terminated in a Voice Mail System (VMS). The Message Line Identifier is a seven-digit number made up of the three-digit Multi-Line Hunt Group (MLHG) identifier and the four-digit MLHG position identifier. An MLHG identifier relates a specific MLHG to an associated SMDI data link (or group of data links). An MLHG position identifier specifies a unique hunt terminal in the MLHG, and provides call history information on an SMDI data link (or group of data links) for calls terminated to that hunt terminal.

Category: Call Control **Security:** SA for DLT and ENT, View for RTRV

Input Formats:

```
DLT-VMS-CKTID:[TID]:<ds0Aid>:[CTAG];

ENT-VMS-CKTID:[TID]:<ds0Aid>:[CTAG]::MLHGID=<mlhgId>,
   MLHGCKTID=<mlhgCktId>;

RTRV-VMS-CKTID:[TID]:[<ds0Aid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<ds0Aid>:MLHGID=<mlhgId>,MLHGCKTID=<mlhgCktId>"
;
```

Parameters:

ds0Aid Identifies the AID as a DS0 channel on an IOM. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the system retrieves data for all DS0 channels configured in the system that are associated with Message Line Identifiers.

Type: T0
Range: IOM-{1-17}-PORT-{1-28}-T0-{1-24}
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}-T0-{1-24}
IOM-{1-17}-T3-{1-8}-PORT-{1-28}-T0-{1-24}
Default value: none

mlhgId Identifies the MLHG identifier with exactly three digits, excluding those three-digit combinations identical to any of the exchanges (NXX codes) served by the switch.

Type: integer
Range: {000-999}
Default value: none

mlhgCktId Identifies the MLHG position identifier with exactly four digits.

Type: integer
Range: {0000-9999}
Default value: none

Input Examples:

```
DLT-VMS-CKTID::IOM-1-T3-1-PORT-1-T0-1;

ENT-VMS-CKTID::IOM-1-T3-1-PORT-1-T0-1:::MLHGID=001,
   MLHGCKTID=0001;

RTRV-VMS-CKTID::IOM-1-T3-1-PORT-1-T0-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-1-T3-1-PORT-1-T0-1:MLHGID=001,MLHGCKTID=0001"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-VMS-LNK

Commands:

DLT-VMS-LNK: Delete VMS Link

ED-VMS-LNK: Edit VMS Link

ENT-VMS-LNK: Enter VMS Link

RTRV-VMS-LNK: Retrieve VMS Link

Descriptions:

DLT-VMS-LNK lets the user delete an SMDI (Simplified Message Desk Interface) data link between the switch and a Voice Mail System (VMS).

ED-VMS-LNK lets the user change the parameters associated with an SMDI (Simplified Message Desk Interface) data link between the switch and a Voice Mail System (VMS). Use this command to change the directory numbers (DN) for the VMS and for message retrieval, whether the link can control Message Waiting Indicators (MWI) for subscribers, whether first or last forwarding number, calling party number presentation status and the calling party name are included in call history information, and the link's primary state.

ENT-VMS-LNK lets the user establish the parameters associated with an SMDI (Simplified Message Desk Interface) data link between the switch and a Voice Mail System (VMS). ENT-VMS-LNK associates an SMDI data link with a Message Storage and Retrieval (MSR) system in a VMS. Use this command to establish the directory numbers (DN) for the VMS and for message retrieval, the IP address and port number for the data link, whether the link can control Message Waiting Indicators (MWI) for subscribers, whether first or last forwarding number, calling party number presentation status and the calling party name are included in call history information, and the link's primary state. The switch can support no more than eight SMDI data links. The IP address and port number must be unique for each SMDI data link.

RTRV-VMS-LNK lets the user retrieve the parameters associated with an SMDI (Simplified Message Desk Interface) data link between the switch and a Voice Mail System (VMS). Use this command to retrieve the directory numbers (DN) for the VMS and for message retrieval, the IP address and port number for the data link, whether the link can control Message Waiting Indicators (MWI) for subscribers, whether first or last forwarding number, calling party number presentation status and the calling party name are included in call history information, and the link's primary state.

Category: Call Control **Security:** SA for DLT/ENT, View for RTRV

Input Formats:

```
DLT-VMS-LNK:[TID]:<vmsLnkId>:[CTAG];

ED-VMS-LNK:[TID]:<vmsLnkId>:[CTAG]::[VMSDN=<vmsDn>],
   [RTRVDN=<rtrvDn>],[MWICTRL=<mwiCtrl>],
   [FWDNUMCHOICE=<fwdNumChoice>],
   [CNDPHIST=<cndpHist>],[CNAMHIST=<cnamHist>]:
   [<pst>];

ENT-VMS-LNK:[TID]:<vmsLnkId>:[CTAG]::VMSDN=<vmsDn>,
   RTRVDN=<rtrvDn>,[IPADDR=<ipaddr>],[PORT=<port>],
   [MWICTRL=<mwiCtrl>],[FWDNUMCHOICE=<fwdNumChoice>],
   [CNDPHIST=<cndpHist>],[CNAMHIST=<cnamHist>]:
   [<pst>];

RTRV-VMS-LNK:[TID]:[<vmsLnkId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<vmsLnkId>:VMSDN=<vmsDn>,RTRVDN=<rtrvDn>,
      IPADDR=<ipaddr>,PORT=<port>,MWICTRL=<mwiCtrl>,
      FWDNUMCHOICE=<fwdNumChoice>,CNDPHIST=<cndpHist>,
      CNAMHIST=<cnamHist>:<pst>,<sst>"
;
```

Parameters:

vmsLnkId Identifies the AID as an SMDI (Simplified Message Desk Interface) data link between the switch and a Voice Mail System. The pattern is a combination of a generic Message Storage and Retrieval (MSR) system in a VMS and an SMDI data link between it and the switch. A value of "0" for *msrId* indicates that the link is a virtual VMS link. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, the system retrieves data for all VMS data links configured in the system.

Type: VMS
Range: <msrId>-<smdiLnkId>, where
msrId = {0-999} and
smdiLnkId = {1-8}
Default value: none

vmsDn Identifies the directory number for the Voice Mail System.

Type: string
Range: up to 21 digits
Default value: none

rtrvDn Identifies the directory number for message retrieval from the VMS.

Type: string
Range: up to 21 digits
Default value: none

ipAddr Identifies the IP address of the terminal server for the data link. The value is "NULL" when the value of *msrId* (first part of AID) is "0"; specify the value for non-virtual VMS links.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: NULL

port Identifies the TCP port number used to access the physical port on the terminal server. The value is "NULL" when the value of *msrId* (first part of AID) is "0"; specify the value for non-virtual VMS links.

Type: integer
Range: {10001-10008}
Default value: NULL

mwiCtrl Identifies whether the link can control Message Waiting Indicators (MWI) for subscribers.

Type: enum
Range: ON = data link can control MWI
OFF = data link cannot control MWI
Default value: ON

fwdNumChoice Identifies whether the first or last forwarding number is included in call history information sent over the data link.

Type: enum
Range: FIRST = first forwarding number is included
LAST = last forwarding number is included
Default value: FIRST

cndpHist Identifies whether call history messages sent to the Voice Mail System include the calling party number presentation status.

Type: BoolYN
Range: N = calling party number presentation status is not included
Y = calling party number presentation status is included
Default value: N

cnamHist Identifies whether call history messages sent to the Voice Mail System include the calling party name.

Type: BoolYN
Range: N = calling party name is not included
Y = calling party name is included
Default value: N

pst Identifies the primary state of the link.

Type: enum
Range: IS = In-Service: link processes MWI requests and forwards call history messages to the VMS
OOS = Out-Of-Service, implied OOS-MA (Out-Of-Service for Management): link neither processes MWI requests nor forwards call history messages to the VMS
Default value: OOS

pst Identifies (in RTRV output) the primary state, and primary state qualifier, of the link.

Type: enum
Range: IS = In-Service
OOS-AU = Out-Of-Service, Autonomous
OOS-AUMA = Out-Of-Service, Autonomous and Managed
OOS-MA = Out-Of-Service, Managed
Default value: none

sst Identifies (in RTRV output) the secondary state of the link.

Type: enum
Range: FLT = Faulted (due to a socket error on the SP)
SGEO = Supporting Entity Outage (Failure with TCP connection to terminal server caused by network or terminal server problem)
Default value: none

Input Examples:

```
DLT-VMS-LNK::1-1;

ED-VMS-LNK::1-1:::VMSDN=9789736808,RTRVDN=9789736808,
   MWICTRL=ON,FWDNUMCHOICE=FIRST,CNDPHIST=N,
   CNAMHIST=N:OOS;

ENT-VMS-LNK::1-1:::VMSDN=9789736808,RTRVDN=9789736808,
   IPADDR=192.168.254.0,PORT=10001,MWICTRL=ON,
   FWDNUMCHOICE=FIRST,CNDPHIST=N,CNAMHIST=N:OOS;

RTRV-VMS-LNK::1-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1-1:VMSDN=9789736808,RTRVDN=9789736808,
      IPADDR=192.168.254.0,PORT=10001,MWICTRL=ON,
      FWDNUMCHOICE=FIRST,CNDPHIST=N,CNAMHIST=N:
      OOS-AU,FLT"
;
```

Related Commands: none

ED/RTRV-VMS-SYS

Commands:

ED-VMS-SYS: Edit VMS System

RTRV-VMS-SYS: Retrieve VMS System

Descriptions:

ED-VMS-SYS lets the user change the parameters affecting the association between the switch and a Voice Mail System. Parameters include the VMWI (Visual Message Waiting Indicator) refresh period, the MWI control request holding time, whether Visual MWI and Abbreviated Ring can be provided to subscribers, and the service logic host route to a remote switch hosting either the voice mail system or its subscribers.

RTRV-VMS-SYS lets the user retrieve the parameters affecting the association between the switch and a Voice Mail System. Parameters include the VMWI (Visual Message Waiting Indicator) refresh period, the MWI control request holding time, whether Visual MWI and Abbreviated Ring can be provided to subscribers, and the service logic host route to a remote switch hosting either the voice mail system or its subscribers.

Category: Call Control **Security:** SA for ED, View for RTRV

Input Formats:

```
ED-VMS-SYS:[TID]:[<src>]:[CTAG]::
   [MWIRESFRESH=<mwiRefresh>],[MWIT1=<mwiT1>],
   [MWIVISUAL=<mwiVisual>],[ABRRING=<abrRing>],
   [SLHRID=<slhrId>];
RTRV-VMS-SYS:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:MWIRESFRESH=<mwiRefresh>,MWIT1=<mwiT1>,
      MWIVISUAL=<mwiVisual>,ABRRING=<abrRing>,
      SLHRID=<slhrId>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

mwiRefresh Identifies the number of minutes after which the switch transmits an "Indicator On/Off" message to each VMWI (Visual Message Waiting Indicator)-enabled line. The switch does not queue or retransmit the message if the subscriber's line is busy. The factory default is "30".

Type: integer
Range: {0-60}
Default value: not applicable

mwiT1 Identifies the duration, in minutes, that an MWI control request can be held outstanding against the SMDI (Simplified Message Desk Interface) that requested it. The factory default is "150".

Type: integer
Range: {120-240}
Default value: not applicable

mwiVisual Identifies whether Visual MWI can be provided to subscribers. The factory default is "OFF".

Type: enum
Range: ON
OFF
Default value: not applicable

abrRing Identifies whether Abbreviated Ring can be provided to subscribers. The factory default is "OFF".

Type: enum
Range: ON
OFF
Default value: not applicable

slhrId Identifies the service logic host route to a Service Control Point hosting either the voice mail system or its subscribers. The factory default is "NULL".

Type: enum
Range: {0-31}
NULL
Default value: not applicable

Input Examples:

```
ED-VMS-SYS:::::MWIRESFRESH=30,MWIT1=150,MWIVISUAL=OFF,
   ABRRING=OFF,SLHRID=NULL;

RTRV-VMS-SYS;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "COM:MWIRESFRESH=30,MWIT1=150,MWIVISUAL=OFF,
      ABRRING=OFF,SLHRID=NULL"
;
```

Related Commands: none

INIT-REG-VMSLNK / RTRV-PM-VMSLNK

Commands:

INIT-REG-VMSLNK: Initialize Register VMS Link

RTRV-PM-VMSLNK: Retrieve Performance Monitoring VMS Link

Descriptions:

INIT-REG-VMSLNK lets the user initialize one or more storage registers or event counters for message statistics related to SMDI (Simplified Message Desk Interface) data links between the switch and a generic Message Storage and Retrieval (MSR) system in a Voice Mail System (VMS).

RTRV-PM-VMSLNK lets the user retrieve current and historical performance data related to SMDI (Simplified Message Desk Interface) data links between the switch and a generic Message Storage and Retrieval (MSR) system in a Voice Mail System (VMS).

Category: Call Control **Security:** NSA for ED, View for RTRV

Input Formats:

```
INIT-REG-VMSLNK:[TID]:<smdiLnkId>:[CTAG]::[<montype>],
   [<monval>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

```
RTRV-PM-VMSLNK:[TID]:<smdiLnkId>:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<smdiLnkId>:<montype>,<monval>,<vldty>,<locn>,
      <dirn>,<tmper>,<mondat>,<montm>"
;
```

Parameters:

smdiLnkId Identifies the AID as an SMDI data link between a generic Message Storage and Retrieval (MSR) system in a VMS and the switch.

Type: integer
Range: {1-8}
Default value: none

montype Identifies a type of monitored parameter for MGCP messages.

Type: enum
Range: ALL = All monitored parameters
CALLHSTMSGTX = the number of call history messages sent to the VMS.
CALLHSTBYTETX = the number of call history bytes sent to the VMS.
CALLHSTMSGDSC = the number of discarded call history messages.
MWIBLKMSGTX = the number of BLK messages sent to the VMS.
MWIBLKBYTETX = the number of BLK bytes sent to the VMS.
MWIINVMSGTX = the number of INV messages sent to the VMS.
MWIINVBYTETX = the number of INV bytes sent to the VMS.
MWIVLDMSGRX = the number of valid MWI messages.
MWIVLDBYTERX = the number of valid MWI message bytes received from the VMS.
MSGDSCOVRFLW = the number of incoming messages dropped due to overflow.
INVMSGRX = the number of invalid messages received from the VMS.
MAXQBYTERX = the maximum number of bytes in the incoming message queue.
MAXQBYTETX = the maximum number of bytes in the outgoing message queue
MAXQMSGRX = the maximum number of messages in the incoming message queue.
MAXQMSGTX = Timeouts: the maximum number of messages in the outgoing message queue.
Default value: ALL

monval Monitored value is either the measured value of the monitored parameter, or the value to which the register identified by *montype* is to be initialized. The value is in the form of numeric counts or rates. This parameter is presently not supported; leave it blank.

Type: integer
Range: {0-9999}
Default value: 0

monlev Identifies (for RTRV-PM input) the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

vldty Identifies (for RTRV-PM output) the validity of the monitored interval; that is, whether the information for the specified time period was accumulated over the entire time period or some portion of it.

Type: enum
Range: ADJ = Data manually adjusted or initialized
COMPL = Data accumulated over the entire time period
LONG = Data accumulated over greater than the entire time period
NA = Data not available
PRTL = Data accumulated over a portion of the time period
Default value: none

locn Identifies the location of the storage counters to be initialized. This parameter is presently not supported; leave it blank.

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters. This parameter is presently not supported; leave it blank.

Type: enum
Range: BTH = Both directions
RCV = Receive direction only
TRMT = Transmit direction only
Default value: BTH

tmper The accumulation period for performance counters. The only values currently allowed for *tmper* are "15-MIN" and "24-HR". A null value defaults to both applicable accumulation periods. This parameter is presently not supported; leave it blank.

Type: enum
Range: {1}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)
Default value: both 15-MIN and 24-HR

mondat Indicates the monitored date. The value indicates the beginning date for the performance-monitoring or storage register period defined by *tmper*. The format is MM-DD. This parameter is presently not supported; leave it blank.

Type: enum
Range: {1-12}-{1-31}
Default value: current date

montm Indicates the monitored time. The value indicates the beginning time of day for the performance-monitoring or storage register period defined by *tmper*. The format is HH-MM. This parameter is presently not supported; leave it blank.

Type: enum
Range: {0-23}-{0-59}
Default value: current time

Input Examples:

```
INIT-REG-VMSLNK;
RTRV-PM-VMSLNK;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "4:CALLHSTMSGTX,998"
   "4:CALLHSTBYTETX,12756"
;
```

Related Commands: none

ED/RTRV-VOIP-NETSYS

Commands:

ED-VOIP-NETSYS: Edit VoIP NETSYS

RTRV-VOIP-NETSYS: Retrieve VoIP NETSYS

Descriptions:

ED-VOIP-NETSYS lets the user edit general system-wide parameters, on the IP network side, for the DSP resources in the switch. Edits affect only new circuit setups after a VPS module has been removed and restored to service.

RTRV-VOIP-NETSYS lets the user retrieve general system-wide parameters, on the IP network side, for the DSP resources in the switch.

Category: VoIP **Security:** SA for ED, View for RTRV

Input Formats:

```
ED-VOIP-NETSYS:[TID]:[<src>]:[CTAG]::
   [ECHOTAIL=<EchoTail>],[TDMCOMPAND=<TdmCompand>],
   [DEFGAIN=<DefGain>],[NOMJITBUFSZ=<nomJitBufSz>];

RTRV-VOIP-NETSYS:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:ECHOTAIL=<EchoTail>,TDMCOMPAND=<TdmCompand>,
      DEFGAIN=<DefGain>,NOMJITBUFSZ=<nomJitBufSz>"
;
```

Parameters:

src Identifies the AID as the switch (COM).

Type: COM
Range: COM
Default value: COM

EchoTail Identifies the number of milliseconds after a transmission during which echoes are cancelled (if *EchoCanc* is set to "ON".). The factory default is "32".

Type: enum
Range: 0
8
16
32
64
128
Default value: not applicable

TdmCompand Identifies the companding type; that is, the PCM encoding method used in the analog-to-digital network conversion. The wide dynamic range of speech does not lend itself well to efficient linear digital encoding. A-law and Mu-law encoding effectively reduce the dynamic range of the signal, thereby increasing the coding efficiency and resulting in a signal-to-distortion ratio that is greater than that obtained by linear encoding for a given number of bits. The factory default is "MULAW".

Type: enum
Range: ALAW = a-law algorithm: A standard compression algorithm, used in digital communications systems of the European digital hierarchy to optimize the dynamic range of an analog signal for digitizing.
LINEAR = linear encoding
MULAW = mu-law (μ-law) algorithm: A standard compression algorithm, used in digital communications systems of the North American digital hierarchy to optimize the dynamic range of an analog signal for digitizing.
Default value: not applicable

DefGain Identifies the default gain in negative decibels (actually, attenuation in decibels; i.e., the average attenuation for a packet in the network). The factory default is "0".

Type: integer
Range: {0-20}
Default value: not applicable

nomJitBufSz Identifies the nominal jitter buffer size in milliseconds. The factory default is "10".

Type: integer
Range: {10-200}
Default value: not applicable

Input Examples:

```
ED-VOIP-NETSYS:::::ECHOTAIL=32,TDMCOMPAND=MULAW,
   DEFGAIN=0,NOMJITBUFSZ=10;

RTRV-VOIP-NETSYS;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   "COM:ECHOTAIL=32,TDMCOMPAND=MULAW,DEFGAIN=0,
      NOMJITBUFSZ=10"
;
```

Related Commands: none

ED/RTRV-VOIP-SYS

Commands:

ED-VOIP-SYS: Edit VoIP System

RTRV-VOIP-SYS: Retrieve VoIP System

Descriptions:

ED-VOIP-SYS lets the user edit general system-wide parameters for the DSP resources in the switch. Edits affect only new circuit setups after a VPS module has been removed and restored to service.

RTRV-VOIP-SYS lets the user retrieve general system-wide parameters for the DSP resources in the switch.

Category: VoIP **Security:** SA for ED, View for RTRV

Input Formats:

```
ED-VOIP-SYS:[TID]:[<src>]:[CTAG]::
   [DIFFSERV=<diffServ>],[AAL5ENC=<aal5Enc>],
   [VADTHRESH=<vadThresh>],
   [JITBUFPLMOD=<jitBufPlMod>],
   [JITBUFLOWTHRESH=<jitBufLowThresh>],
   [JITBUFHIGHTHRESH=<jitBufHighThresh>],
   [JITBUFRSPRT=<jitBufRspRt>],
   [ECDISABLE=<ecDisable>],
   [PINGHRTBTTMR=<pingHrtBtTmr>],
   [SIDTXINTERVAL=<sidTxInterval>],
   [PKTFILTER=<pktFilter>],[UDPCHKSUM=<udpChksum>],
   [XTALKPERIOD=<xtalkPeriod>],
   [XTALKTHRESH=<xtalkThresh>],
   [IDLEPATTERN=<idlePattern>],[CNG=<cng>];

RTRV-VOIP-SYS:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:[DIFFSERV=<diffServ>],AAL5ENC=<aal5Enc>,
      VADTHRESH=<vadThresh>,JITBUFPLMOD=<jitBufPlMod>,
      JITBUFLOWTHRESH=<jitBufLowThresh>,
      JITBUFHIGHTHRESH=<jitBufHighThresh>,
      JITBUFRSPRT=<jitBufRspRt>,ECDISABLE=<ecDisable>,
      PINGHRTBTTMR=<pingHrtBtTmr>,
      SIDTXINTERVAL=<sidTxInterval>,
      PKTFILTER=<pktFilter>,UDPCHKSUM=<udpChksum>,
      XTALKPERIOD=<xtalkPeriod>,
      XTALKTHRESH=<xtalkThresh>,
      IDLEPATTERN=<idlePattern>,CNG=<cng>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

diffServ Identifies the six-bit wide DSCP bit mask, representing differentiated services for RTP ports, that follows the two-bit wide CU bit mask (always zero – cannot be changed) to form the TOS (Type of Service) octet. The factory default is “000101”.

Type: string
Range: six-digit string of “1”s and “0”s
Default value: not applicable

aal5Enc Identifies the encoding type for ATM (Asynchronous Transfer Mode) Adaptation Layer 5. The factory default is “VCMUX”. Reset the VPS module after changing the encoding type, either by changing the state with the ED-EQPT command to OOS, then to IS, or by sequentially executing RMV-EQPT and RST-EQPT.

Type: enum
Range: LLCSNAP = Logical Link Control SubNetwork Attachment Point
VCMUX = Virtual Connection Multiplexing
Default value: not applicable

vadThresh Identifies the voice activity detection threshold, which specifies lower and upper threshold settings used by the voice server modules when silence suppression is active on a VoIP call. The voice codec treats a maintained power level below the lower threshold as silence and triggers the generation of SID (Silence Insertion Descriptor) packets. The codec treats a maintained power level above the upper threshold as an active voice conversation and begins transmission of RTP VoIP packets. The generation of RTP versus SID packets when the power level fluctuates between the upper and lower thresholds is indeterminate. The factory default is "6".

Type: integer
Range: {1-10}, where:

Value	Upper (dB)	Lower (dB)
1	-27	-39
2	-30	-42
3	-33	-45
4	-36	-48
5	-39	-51
6	-42	-54
7	-45	-57
8	-48	-60
9	-51	-63
10	-54	-66

Default value: not applicable

jitBufPlMod Identifies the jitter buffer playout mode. The factory default is "FIXED".

Type: enum
Range: ADAPTIVE = proprietary voice buffer management
FIXED = fixed buffer management
Default value: not applicable

jitBufLowThresh Identifies the jitter buffer low threshold in milliseconds. The factory default is "10".

Type: integer
Range: {0-315}
Default value: not applicable

jitBufHighThresh Identifies the jitter buffer high threshold in milliseconds. The value of *jitBufHighThresh* must be greater than the value of *jitBufLowThresh*. The factory default is "320".

Type: integer
Range: {0-320}
Default value: not applicable

jitBufRspRt Identifies the jitter buffer response rate (time constant). The time constant determines the speed of adaptation with the following trade-off: a longer time constant slows adaptation but results in a more stable jitter buffer nominal threshold variable. A shorter time constant causes faster adaptation but at the same time may result in frequent changes in the jitter buffer nominal threshold variable. For jitters in bursts one can expect a better trade off by using a smaller time constant; for random jitter a longer time constant is more appropriate. The choice of optimal parameters is system dependent and should be selected based on the measure of jitter in the network. However, assuming random jitter and desire for small changes in delay over short instances, setting the value of *jitBufLowThresh* to "2", *jitBufHighThresh* to "16", and *jitBufRspRt* to "127" can be used as a start. The factory default is "127".

Type: integer
Range: {1-127}
Default value: not applicable

ecDisable Identifies the echo canceller disable policy. The factory default is "G168".

Type: enum
Range: G164
G165
G168
NONE
Default value: not applicable

pingHrtBtTmr Identifies the heartbeat timer in seconds; that is, how often the network access IOM pings the router. A value of "0" disables the ping test. The factory default is "1".

Type: integer
Range: {0-10}
Default value: not applicable

sidTxInterval Identifies the frequency, in milliseconds, of SID packets generated in periods of silence during a conversation. The factory default is "100".

Type: integer
Range: {10-1000}, in 10-millisecond increments
Default value: not applicable

pktFilter Identifies whether to enable RTP packet filtering for a call. If enabled, only RTP packets whose source IP/UDP address match the remote IP/UDP address specified when the circuit was created will be accepted by the system. For SIP installations and some feature servers this must be disabled. For non-SIP installations, this may prevent IP cross-talk from corrupting the voice bearer path. The factory default is "DISABLED".

Type: enum
Range: DISABLED
ENABLED
Default value: not applicable

udpChksum Identifies whether to enable UDP checksum on RTP packets. The factory default is "DISABLED".

Type: enum
Range: DISABLED
ENABLED
Default value: not applicable

xtalkPeriod Identifies the number of consecutive RTP packets with no change in any remote parameter (SSRC, UDP_PORT, IP_ADDRESS) to qualify the current RTP stream as valid. The factory default is "200".

Type: integer
Range: {1-1000}
Default value: not applicable

xtalkThresh Identifies the number of packets with changes in the remote parameters (SSRC, UDP_PORT, IP_ADDRESS) required to generate an event indicating that IP XTALK may be present. The factory default is "100".

Type: integer
Range: {0-1000}
Default value: not applicable

idlePattern Identifies the idle pattern generated (as a hex string) by the DSP when a clear channel data call is established over a VoIP circuit. When the jitter buffer under runs, the DSP generates the specified octet until the next RTP packet is received. In most situations, an HDLC protocol is transported over a clear channel VoIP RTP stream. If an underrun occurs, the transmission of an HDLC flag X.7e' should be generated to force HDLC realignment. The factory default is "7E".

Type: string
Range: {00-ff}
Default value: not applicable

cng Identifies the level, in negative decibels, at which to generate comfort noise during periods of silence. The factory default is “60”.

Type: integer
Range: {30-77}
Default value: not applicable

Input Examples:

```
ED-VOIP-SYS:::::DIFFSERV=000101,AAL5ENC=VCMUX,
   VADTHRESH=6,JITBUFPLMOD=FIXED,JITBUFLOWTHRESH=10,
   JITBUFHIGHTHRESH=320,JITBUFRSPRT=127,
   ECDISABLE=G168,PINGHRTBTTMR=1,SIDTXINTERVAL=100,
   PKTFILTER=DISABLED,UDPCHKSUM=DISABLED,
   XTALKPERIOD=20,XTALKTHRESH=10,IDLEPATTERN=7E,
   CNG=60;

RTRV-VOIP-SYS;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   "COM:DIFFSERV=000101,AAL5ENC=VCMUX,VADTHRESH=6,
      JITBUFPLMOD=FIXED,JITBUFLOWTHRESH=10,
      JITBUFHIGHTHRESH=320,JITBUFRSPRT=127,
      ECDISABLE=G168,PINGHRTBTTMR=1,SIDTXINTERVAL=100,
      PKTFILTER=DISABLED,UDPCHKSUM=DISABLED,
      XTALKPERIOD=20,XTALKTHRESH=10,IDLEPATTERN=7E,
      CNG=60"
;
```

Related Commands: none

RTRV-PM-VPVOIP

Command:

RTRV-PM-VPVOIP: Retrieve Performance Monitors VPVOIP

Description:

RTRV-PM-VPVOIP lets the user retrieve current and historical performance data for a voice processor on a Voice over IP (VoIP) IOM.

Category: VoIP **Security:** View

Input Format:

```
RTRV-PM-VPVOIP:[TID]:<vpId>:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<vpId>:<montype>,<monval>,<vldty>,<locn>,<dirn>,
      <tmper>,<mondat>,<montm>"
;
```

Parameters:

vpId Identifies the AID as a voice processor on a VoIP IOM. A null value for the second field in the range is equivalent to "ALL"; that is, by leaving the field blank, the system returns information for all voice processors on the IOM specified by the first field in the range.

Type: vpId
Range: IOM-{1-17}[-VP-{1-8}]
Default value: none

montype Identifies the registers (for a type of monitored parameter) from which to retrieve performance data.

Type: enum
Range: ALL = All types
CINDROP = Number of incoming cells dropped
COUTDROP = Number of outgoing cells dropped
CR = Number of cells received
CT = Number of cells transmitted
CTDR = Number of control packets received
CTDT = Number of control packets transmitted
CTPRDROPINVALIDSIZE = Number of control packets dropped due to invalid size
CTPRDROPNONUDP = Number of control packets dropped due to not being UDP
CTPRDROPNORSRC = Number of control packets dropped due to lack of resources
HEC = Number of cells with header error count
IPR = Number of IP packets received
IPRBADHLEN = Number of IP packets received with bad header length
IPRBADIP = Number of IP packets received with bad IP address
IPRBADSUM = Number of IP packets received with bad checksum
IPRBADUDP = Number of IP packets received with bad UDP port
IPRVALID = Number of valid IP packets received
IPT = Number of IP packets transmitted
PR = Number of packets received
PT = Number of packets transmitted
UDPR = Number of UDP packets received
UDPT = Number of UDP packets transmitted
UNRECCELL = Number of unrecognized cells
Default value: ALL

monval Identifies (for RTRV-PM output) the measured value of the monitored parameter. The value is in the form of numeric counts or rates.

Type: integer
Range: {0-4294967295}
Default value: 0

monlev Indicates the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

vldty Identifies (for RTRV-PM output) the validity of the monitored interval; that is, whether the information for the specified time period was accumulated over the entire time period or some portion of it. This parameter is not supported presently; its value will be "NULL".

Type: enum
Range: ADJ = Data manually adjusted or initialized
COMPL = Data accumulated over the entire time period
LONG = Data accumulated over greater than the entire time period
NA = Data not available
PRTL = Data accumulated over a portion of the time period
Default value: not applicable for output

locn Identifies the location of the storage counters from which to retrieve performance data. This parameter is not supported presently; leave it blank.

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters. This parameter is not supported presently; leave it blank.

Type: enum
Range: BTH = Both directions
RCV = Receive direction only
TRMT = Transmit direction only
Default value: BTH

tmper The accumulation period for performance counters. The only values currently allowed for *tmper* are "15-MIN" and "24-HR". This parameter is not supported presently; leave it blank.

Type: enum
Range: {1}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)
Default value: 15-MIN

mondat Indicates the monitored date. The value indicates the beginning date for the performance-monitoring period defined by *tmper*. The format is MM-DD. This parameter is not supported presently; leave it blank.

Type: enum
Range: {1-12}-{1-31}
Default value: current date

montm Indicates the monitored time. The value indicates the beginning time of day for the performance-monitoring period defined by *tmper*. The format is HH-MM. This parameter is not supported presently; leave it blank.

Type: enum
Range: {0-23}-{0-59}
Default value: current time

Input Example:

```
RTRV-PM-VPVOIP::IOM-1;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   "IOM-11-VP-3:CT,0,COMPL,,,,"
   "IOM-11-VP-3:CR,0,COMPL,,,,"
   "IOM-11-VP-3:HEC,0,COMPL,,,,"
   "IOM-11-VP-3:UNRECCELLS,0,COMPL,,,,"
   "IOM-11-VP-3:OUTDROP,0,COMPL,,,,"
   "IOM-11-VP-3:INDROP,0,COMPL,,,,"
   "IOM-11-VP-3:PT,0,COMPL,,,,"
   "IOM-11-VP-3:PR,0,COMPL,,,,"
   "IOM-11-VP-3:UDPT,0,COMPL,,,,"
   "IOM-11-VP-3:UDPR,0,COMPL,,,,"
   "IOM-11-VP-3:CTDT,0,COMPL,,,,"
   "IOM-11-VP-3:CTDR,0,COMPL,,,,"
   "IOM-11-VP-3:IPT,0,COMPL,,,,"
   "IOM-11-VP-3:IPR,0,COMPL,,,,"
   "IOM-11-VP-3:IPRVALID,0,COMPL,,,,"
   "IOM-11-VP-3:IPRBADSUM,0,COMPL,,,,"
   "IOM-11-VP-3:IPRBADHLEN,0,COMPL,,,,"
   "IOM-11-VP-3:IPRBADIP,0,COMPL,,,,"
   "IOM-11-VP-3:IPRBADUDP,0,COMPL,,,,"
   "IOM-11-VP-3:CTPDROPNORSRC,0,COMPL,,,,"
   "IOM-11-VP-3:CTPDROPINVALIDSIZE,0,COMPL,,,,"
   "IOM-11-VP-3:CTPDROPNONUDP,0,COMPL,,,,"
;
```

Related Commands: none

RTRV-STATUS-MG

Command:

RTRV-STATUS-MG: Retrieve Status Media Gateway

Description:

RTRV-STATUS-MG lets the user retrieve, for the switch configured as a media gateway, the number of active contexts, the number of TDM terminations available and used, the number of packet terminations used, and the number of resources available for various compression protocols and for TDM echo cancellation.

Category: VoIP **Security:** View

Input Format:

```
RTRV-STATUS-MG:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:NUMCONTEXTS=<numContexts>,
      NUMTDMTERMUSED=<numTdmTermUsed>,
      NUMTDMTERMAVAIL=<numTdmTermAvail>,
      NUMVOIPTERMUSED=<numVoipTermUsed>,
      VOIPTDMECAVAIL=<voipTdmEcAvail>,
      RESPRFL1=<resPrfl1>,RESPRFL2=<resPrfl2>,
      RESPRFL3=<resPrfl3>,RESPRFL4=<resPrfl4>,
      RESPRFL5=<resPrfl5>,RESPRFL6=<resPrfl6>,
      RESPRFL7=<resPrfl7>,
      NOECAVAILCURRENT=<noEcAvailCurrent>,
      NOECAVAILTOTAL=<noEcAvailTotal>"
;
```

Parameters:

src Identifies the AID as the switch.

Type: COM
Range: COM
Default value: COM

numContexts Identifies the number of active contexts.

Type: integer
Range: {0-2147483648}
Default value: none

numTdmTermUsed Identifies the number of TDM terminations used.

Type: integer
Range: {0-2147483648}
Default value: none

numTdmTermAvail Identifies the number of TDM terminations available.

Type: integer
Range: {0-2147483648}
Default value: none

numVoipTermUsed Identifies the number of VoIP terminations used.

Type: integer
Range: {0-2147483648}
Default value: none

voipTdmEcAvail Identifies the number of resources available for TDM echo cancellation on a VoIP IOM.

Type: integer
Range: {0-2147483648}
Default value: none

resPrfl1 Identifies the number of resources available for G711/Clear Channel data calls.

Type: integer
Range: {0-128000}
Default value: none

resPrfl2 Identifies the number of resources available for G729 compression on a VoIP IOM.

Type: integer
Range: {0-128000}
Default value: none

resPrfl3 Identifies the number of resources available for G723 compression on a VoIP IOM.

Type: integer
Range: {0-128000}
Default value: none

resPrfl4 Identifies the number of resources available for G726 compression on a VoIP IOM.

Type: integer
Range: {0-128000}
Default value: none

resPrfl5 Identifies the number of resources available for a yet undetermined codec profile. This parameter is reserved for future use.

Type: integer
Range: {0-2147483648}
Default value: none

resPrfl6 Identifies the number of resources available for a yet undetermined codec profile. This parameter is reserved for future use.

Type: integer
Range: {0-2147483648}
Default value: none

resPrfl7 Identifies the number of resources available for a yet undetermined codec profile. This parameter is reserved for future use.

Type: integer
Range: {0-2147483648}
Default value: none

noEcAvailCurrent Identifies the number of requests for TDM echo cancellation that have failed due to resource unavailability since the last issuance of this command.

Type: integer
Range: {0-2147483648}
Default value: none

noEcAvailTotal Identifies the number of requests for TDM echo cancellation that have failed due to resource unavailability since the last switch reboot.

Type: integer
Range: {0-2147483648}
Default value: none

Input Example:

```
RTRV-STATUS-MG;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   "COM:NUMCONTEXTS=0,NUMTDMTERMUSED=0,
      NUMTDMTERMAVAIL=16368,NUMVOIPTERMUSED=0,
      VOIPTDMECAVAIL=65535,RESPRFL1=0,RESPRFL2=0,
      RESPRFL3=0,RESPRFL4=0,RESPRFL5=0,RESPRFL6=0,
      RESPRFL7=0,NOECAVAILCURRENT=0,NOECAVAILTOTAL=0"
;
```

Related Commands: none

RTRV-STATUS-VPS

Command:

RTRV-STATUS-VPS: Retrieve Status Voice Processor Server

Description:

RTRV-STATUS-VPS lets the user retrieve information for the Voice Processor Server (VPS) modules (including the protection module) in the switch configured as a media gateway. Note that when a VPS module fails over to the protection module, its call path state remains in service; that is, the switch continues to report calls on the failed VPS module as still being on the failed VPS module.

Category: VoIP **Security:** View

Input Format:

```
RTRV-STATUS-VPS:[TID]:[<iomAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<iomAid>:TYPE=<type>,VPSSTATUS=<vpsStatus>,
      VOIPNETWORKCONN=<voipNetworkConn>,
      TDMECAVAIL=<tdmEcAvail>,RESPRFL1=<resPrfl1>,
      RESPRFL2=<resPrfl2>,RESPRFL3=<resPrfl3>,
      RESPRFL4=<resPrfl4>,RESPRFL5=<resPrfl5>,
      RESPRFL6=<resPrfl6>,RESPRFL7=<resPrfl7>"
;
```

Parameters:

iomAid Identifies the AID as an IOM slot containing a Voice Processor Server module. A null value is equivalent to "ALL"; that is, by leaving the field blank, information for all Voice Processor Server modules in the system will be returned.

Type: IomAid
Range: IOM-{1-17}
Default value: none

type Identifies the type of VPS module; that is, whether it supports VoIP or VoA calls.

Type: enum
Range: VOA = Voice over ATM (Asynchronous Transfer Mode)
VOIP = Voice over Internet Protocol
Default value: none

vpsStatus Identifies the current state of the Voice Processor Server module.

Type: enum
Range: FAILINGOVER = a brief state while the protection IOM is being initialized with the data about the failed IOM
IS = In-service
OOS = Out-of-service
PROTECTED = the state where the IOM is OOS and calls are handled by the protection IOM
TEST = VPS is under test
Default value: none

voipNetworkConn Identifies indicates whether the VPS module's connectivity to the network can support VOIP calls.

Type: enum
Range: IS = In-service
OOS = Out-of-service
Default value: none

tdmEcAvail Identifies the number of resources available for TDM echo cancellation on the VPS module.

Type: integer
Range: {0-65535}
Default value: none

resPrfl1 Identifies the number of resources available for G711/Clear Channel data calls.

Type: integer
Range: {0-128000}
Default value: none

resPrfl2 Identifies the number of resources available for G729 compression on a VoIP IOM.

Type: integer
Range: {0-128000}
Default value: none

resPrfl3 Identifies the number of resources available for G723 compression on a VoIP IOM.

Type: integer
Range: {0-128000}
Default value: none

resPrfl4 Identifies the number of resources available for G726 compression on a VoIP IOM.

Type: integer
Range: {0-128000}
Default value: none

resPrfl5 Identifies the number of resources available for a yet undetermined codec profile. This parameter is reserved for future use.

Type: integer
Range: {0-2147483648}
Default value: none

resPrfl6 Identifies the number of resources available for a yet undetermined codec profile. This parameter is reserved for future use.

Type: integer
Range: {0-2147483648}
Default value: none

resPrfl7 Identifies the number of resources available for a yet undetermined codec profile. This parameter is reserved for future use.

Type: integer
Range: {0-2147483648}
Default value: none

Input Example:

```
RTRV-STATUS-VPS::IOM-17;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   "IOM-17:TYPE=VOIP,VPSSTATUS=IS,VOIPNETWORKCONN=OOS,
      TDMECAVAIL=65535,RESPRFL1=0,RESPRFL2=0,
      RESPRFL3=0,RESPRFL4=0,RESPRFL5=0,RESPRFL6=0,
      RESPRFL7=0"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-PRFL-PVCVOIP

Commands:

DLT-PRFL-PVCVOIP: Delete Profile PVCVOIP

ED-PRFL-PVCVOIP: Edit Profile PVCVOIP

ENT-PRFL-PVCVOIP: Enter Profile PVCVOIP

RTRV-PRFL-PVCVOIP: Retrieve Profile PVCVOIP

Descriptions:

DLT-PRFL-PVCVOIP lets the user delete a PVC (Permanent Virtual Connection) profile.

ED-PRFL-PVCVOIP lets the user change the ATM traffic parameters associated with a PVC (Permanent Virtual Connection) profile.

ENT-PRFL-PVCVOIP lets the user establish a profile for a PVC (Permanent Virtual Connection) endpoint that terminates Voice over IP traffic. The profile parameters only have an effect after issuing the ENT-PVC-ENDPTVOIP command. You cannot change the traffic type and bandwidth of an endpoint after the connection is provisioned.

RTRV-PRFL-PVCVOIP lets the user retrieve the ATM traffic parameters associated with a PVC (Permanent Virtual Connection) profile.

Category: VoIP **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-PRFL-PVCVOIP:[TID]:<pvcPrflId>:[CTAG];

ED-PRFL-PVCVOIP:[TID]:<pvcPrflId>:[CTAG]::
   [SCR=<scr>],[PCR=<pcr>],[MBS=<mbs>],[CDVT=<cdvt>],
   [TRAFFICTYPE=<trafficType>];

ENT-PRFL-PVCVOIP:[TID]:<pvcPrflId>:[CTAG]::
   [SCR=<scr>],[PCR=<pcr>],[MBS=<mbs>],[CDVT=<cdvt>],
   [TRAFFICTYPE=<trafficType>];

RTRV-PRFL-PVCVOIP:[TID]:[<pvcPrflId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<pvcPrflId>:SCR=<scr>,PCR=<pcr>,MBS=<mbs>,
      CDVT=<cdvt>,TRAFFICTYPE=<trafficType>"
;
```

Parameters:

pvcPrflId Identifies the AID as a PVC profile. The Switch is shipped with Profile #1 already established as a factory default; you cannot delete it. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for all PVC profiles in the system will be returned.

Type: PvcPrflId
Range: {2-8}
Default value: none

scr Identifies the Sustained Cell Rate.

Type: integer
Range: {64-1412000}
Default value: 1412000

pcr Identifies the Peak Cell Rate.

Type: integer
Range: {64-1412000}
Default value: 1412000

mbs Identifies the PVC maximum burst size (that is., the burst tolerance) in milliseconds.

Type: integer
Range: {1-10000}
Default value: 10000

cdvt Identifies the cell delay variation tolerance in milliseconds.

Type: integer
Range: {0-10000}
Default value: 10000

trafficType Identifies the ATM traffic type.

Type: enum
Range: CBR = constant bit rate
RVBR = real-time variable bit rate
UBR = unspecified bit rate
Default value: UBR

Input Examples:

```
DLT-PRFL-PVCVOIP::2;

ED-PRFL-PVCVOIP::2:::SCR=1412000,PCR=1412000,
   MBS=10000,CDVT=10000,TRAFFICTYPE=UBR;

ENT-PRFL-PVCVOIP::2:::SCR=1412000,PCR=1412000,
   MBS=10000,CDVT=10000,TRAFFICTYPE=UBR;

RTRV-PRFL-PVCVOIP::2;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "2:SCR=1412000,PCR=1412000,MBS=10000,CDVT=10000,
      TRAFFICTYPE=UBR"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-PVC-ENDPTVOIP

Commands:

DLT-PVC-ENDPTVOIP: Delete PVC ENDPTVOIP

ED-PVC-ENDPTVOIP: Edit PVC ENDPTVOIP

ENT-PVC-ENDPTVOIP: Enter PVC ENDPTVOIP

RTRV-PVC-ENDPTVOIP: Retrieve PVC ENDPTVOIP

Descriptions:

DLT-PVC-ENDPTVOIP lets the user delete a PVC (Permanent Virtual Connection) VoIP endpoint; i.e., a digital signal processor (DSP) on a VoIP module in a Lucent Gateway Platform.

ED-PVC-ENDPTVOIP lets the user change the parameters associated with a PVC (Permanent Virtual Connection) VoIP endpoint; i.e., a digital signal processor (DSP) on a VoIP module in a Lucent Gateway Platform.

ENT-PVC-ENDPTVOIP lets the user establish the parameters associated with a PVC (Permanent Virtual Connection) VoIP endpoint; i.e., a digital signal processor (DSP) on a VoIP server module in a Lucent Gateway Platform.

RTRV-PVC-ENDPTVOIP lets the user retrieve the parameters associated with a PVC (Permanent Virtual Connection) VoIP endpoint; i.e., a digital signal processor (DSP) on a VoIP module in a Lucent Gateway Platform.

Category: VoIP **Security:** SA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-PVC-ENDPTVOIP:[TID]:<pvcId>:[CTAG];

ED-PVC-ENDPTVOIP:[TID]:<pvcId>:[CTAG]::
   [IPLNKMON=<ipLnkMon>],[LNKMONPER=<lnkMonPer>],
   [LNKMAXTMOUTS=<lnkMaxTmouts>],[BWLMT=<bwLmt>],
   [PKTLMT<pktLmt>]:<pst>;

ENT-PVC-ENDPTVOIP:[TID]:<pvcId>:[CTAG]::
   IPADDR=<ipAddr>,VPI=<vpi>,VCI=<vci>,
   PVCPRFL=<pvcPrflId>,SUBNETMASK=<subnetMask>,
   INTFC=<intfc>,[RMTPEERIP=<rmtPeerIp>],
   [IPLNKMON=<ipLnkMon>],[LNKMONPER=<lnkMonPer>],
   [LNKMAXTMOUTS=<lnkMaxTmouts>],[BWLMT=<bwLmt>],
   [PKTLMT<pktLmt>]:<pst>;

RTRV-PVC-ENDPTVOIP:[TID]:[<pvcId>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<pvcId>:IPADDR=<ipAddr>,VPI=<vpi>,VCI=<vci>,
      PVCPRFL=<pvcPrflId>,SUBNETMASK=<subnetMask>,
      INTFC=<intfc>,RMTPEERIP=<rmtPeerIp>,
      IPLNKMON=<ipLnkMon>,LNKMONPER=<lnkMonPer>,
      LNKMAXTMOUTS=<lnkMaxTmouts>,BWLMT=<bwLmt>,
      PKTLMT<pktLmt>:<pst>,<sst>"
;
```

Parameters:

pvcId Identifies the AID as a PVC endpoint. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for all PVC endpoints in the system will be returned.

Type: pvcId
Range: {1-4}
Default value: none

ipAddr Identifies the IP address for the PVC endpoint. IP addresses 0.0.0.0 and 255.255.255.255 are not valid.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

vpi Identifies the virtual path identifier for the PVC endpoint.

Type: integer
Range: {0-7}
Default value: none

vci Identifies the virtual circuit identifier for the PVC endpoint.

Type: integer
Range: {32-4096}
Default value: none

pvcPrflId Identifies the PVC profile associated with the PVC endpoint.

Type: integer
Range: {1-8}
Default value: none

subnetMask Identifies the IP address for the subnet mask.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: NONE

intfc Identifies the optical carrier port on a specific IOM as the interface for the PVC endpoint.

Type: enum
Range: IOM-8-IF-{1-4}
Default value: IOM-8-IF-1

rmtPeerIp Identifies the remote peer IP address.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: NULL

ipLnkMon Identifies whether to enable IP link monitoring for a valid remote peer IP address.

Type: BoolYN
Range: N = do not enable IP link monitoring
Y = enable IP link monitoring
Default value: N

lnkMonPer Identifies the frequency, in seconds, that IP ping heartbeat messages are sent by the VoIP IOM.

Type: integer
Range: {1-5}, in 0.5 increments
Default value: 1

lnkMaxTmouts Identifies the number of consecutive IP ping heartbeat time-outs allowed before loss of IP connectivity and subsequent ENA-IOM failover occurs. When the ENA-IOM is connected to a router through a series of switches that have 802.1D spanning tree protocol enabled (and the value of *lnkMonPer* is "1"), the number of consecutive timeouts must be greater than three times the configured forward delay timer configured in the Ethernet switches (default is 15 seconds).

Type: integer
Range: {10-65535}
Default value: 60

bwLmt Identifies the percentage of the bandwidth for the port that can be used.

Type: integer
Range: {0-100}
Default value: 100

pktLmt Identifies the maximum number of packets per second allowed for the PVC endpoint. A value of "0" signifies no limit.

Type: integer
Range: {0, 10000-500000}
Default value: 0

pst Identifies the primary state of the PVC.

Type: enum
Range: IS = In-service
OOS = Out-of-service
Default value: none

sst Identifies (in RTRV output) the secondary state of the PVC endpoint.

Range: ACT = Active
AINS = Automatic, In-service
FAF = Facilities Failure
FLT = Faulted
Default value: none

Input Examples:

```
DLT-PVC-ENDPTVOIP::1;

ED-PVC-ENDPTVOIP::1:::IPLNKMON=N, LNKMONPER=1,
   LNKMAXTMOUTS=60,BWLMT=100,PKTLMT=0:IS;

ENT-PVC-ENDPTVOIP::1:::IPADDR=192.9.20.27,VPI=0,
   VCI=33,PVCPRFL=1,SUBNETMASK=192.9.20.26,
   INTFC=IOM-8-IF-1,RMTPEERIP=NONE,IPLNKMON=N,
   LNKMONPER=1,LNKMAXTMOUTS=60,BWLMT=100,PKTLMT=0:
   PST=IS;

RTRV-PVC-ENDPTVOIP::1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "1:IPADDR=192.9.20.27,VPI=0,VCI=33,PVCPRFL=1,
      SUBNETMASK=192.9.20.26,INTFC=IOM-8-IF-1,
      RMTPEERIP=NONE,IPLNKMON=N,LNKMONPER=1,
      LNKMAXTMOUTS=60,BWLMT=100,PKTLMT=0:IS,ACT"
;
```

Related Commands:

```
DLT/ED/ENT/RTRV-ENET-ENDPTVOIP
```

RTRV-PM-VCCVOIP

Command:

RTRV-PM-VCCVOIP: Retrieve Performance Monitors VCCVOIP

Description:

RTRV-PM-VCCVOIP lets the user retrieve current and historical performance data for a Voice over IP (VoIP) Virtual Circuit Connection (VCC).

Category: VoIP **Security:** View

Input Format:

```
RTRV-PM-VCCVOIP:[TID]:<vpsId>:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<vpsId>:<montype>,<monval>,[<vldty>],[<locn>],
      [<dirn>],[<tmper>],[<mondat>],[<montm>]"
;
```

Parameters:

vpsId Identifies the AID as a VCC on a Voice Processor Server (VPS) module. A null value for the second field in the range is equivalent to "ALL"; that is, by leaving the field blank, the system returns information for all VCCs on the VPS specified by the first field in the range.

Type: vpsId
Range: IOM-{1-17}[-VCC-{0-799}]
Default value: none

montype Identifies a type of monitored parameter for the specified VCC.

Type: enum
Range: AAL5CRCERR = Number of AAL5 CRC errors
AAL5ENCAPERR = Number of AAL5 frame encapsulation errors
ALL = All types
CR = Number of cells received
CT = Number of cells transmitted
Default value: ALL

monval Identifies (for RTRV-PM output) the measured value of the monitored parameter. The value is in the form of numeric counts or rates.

Type: integer
Range: {0-4294967295}
Default value: 0

monlev Indicates the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

vldty Identifies (for RTRV-PM output) the validity of the monitored interval; that is, whether the information for the specified time period was accumulated over the entire time period or some portion of it. This parameter is not supported presently; its value will be “NULL”.

Type: enum
Range: ADJ = Data manually adjusted or initialized
COMPL = Data accumulated over the entire time period
LONG = Data accumulated over greater than the entire time period
NA = Data not available
PRTL = Data accumulated over a portion of the time period
Default value: not applicable for output

locn Identifies the location of the storage counters from which to retrieve performance data. This parameter is not supported presently; leave it blank.

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters. This parameter is not supported presently; leave it blank.

Type: enum
Range: BTH = Both directions
RCV = Receive direction only
TRMT = Transmit direction only
Default value: BTH

tmper The accumulation period for performance counters. The only values currently allowed for *tmper* are “15-MIN” and “24-HR”. This parameter is not supported presently; leave it blank.

Type: enum
Range: {1}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)
Default value: 15-MIN

mondat Indicates the monitored date. The value indicates the beginning date for the performance-monitoring period defined by *tmper*. The format is MM-DD. This parameter is not supported presently; leave it blank.

Type: enum
Range: {1-12}-{1-31}
Default value: current date

montm Indicates the monitored time. The value indicates the beginning time of day for the performance-monitoring period defined by *tmper*. The format is HH-MM. This parameter is not supported presently; leave it blank.

Type: enum
Range: {0-23}-{0-59}
Default value: current time

Input Example:

```
RTRV-PM-VCCVOIP::IOM-10-VCC-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "IOM-10-VCC-1:CT,555555"
   "IOM-10-VCC-1:CR,666666"
   "IOM-10-VCC-1:AAL5CRCERR,0"
   "IOM-10-VCC-1:AAL5ENCAPERR,0"
;
```

Related Commands: none

RTRV-PM-VOIPCKT

Command:

RTRV-PM-VOIPCKT: Retrieve Performance Monitors VoIP Circuit

Description:

RTRV-PM-VOIPCKT lets the user retrieve current and historical performance data for a Voice over IP (VoIP) termination (circuit).

Category: VoIP **Security:** View

Input Format:

```
RTRV-PM-VOIPCKT:[TID]:<voipCktId>:[CTAG]::[<montype>],
   [<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondat>],
   [<montm>];
```

Output Format:

```
      SID DATE TIME
M  CTAG COMPLD
   "<voipCktId>:<montype>,<monval>,[<vldty>],[<locn>],
      [<dirn>],[<tmper>],[<mondat>],[<montm>]"
;
```

Parameters:

voipCktId Identifies the AID as a VoIP termination (circuit).

Type: string
Range: CTXT-<ctxId>, where *ctxId* = {0-4294967295}
TERM-<voipTermId>, where voipTermId is a string of alphanumeric characters, in the form:
Chassis/Termination type/IOM/numeric ID for the ephemeral RTP termination =
Chassis/RTP/IOM{1-17}/32-bit field printed as hex
Default value: none

montype Identifies a type of monitored parameter for the specified VCC.

Type: enum
Range: ALL = All types
JBCOUNT = Current jitter buffer count
JITTER = Average inter-arrival jitter
JITTERPEER = Peer's inter-arrival jitter
OCTRX = Octets received
OCTTX = Octets transmitted
PKTLOST = Packets lost
PKTLOSTPEER = Packets that didn't make it to the peer
PKTRX = Packets received
PKTSIDRX = SID (Silence Insertion Descriptor) packets received
PKTSIDTX = SID packets transmitted
PKTTX = Packets transmitted
RTCPPKTRX = RTCP packets received (presently unsupported)
RTCPPKTTX = RTCP packets transmitted (presently unsupported)
RTDELAY = Round trip delay (presently unsupported)
SDULOST = SDU (Service Data Units) lost
Default value: ALL

monval Identifies (for RTRV-PM output) the measured value of the monitored parameter. The value is in the form of numeric counts or rates.

Type: integer
Range: {0-4294967295}
Default value: 0

monlev Indicates the discriminating level of the requested monitored parameter. A null value defaults to "1-UP".

Type: enum
Range: {0-255}-{UP,DOWN}
Default value: 1-UP

vldty Identifies (for RTRV-PM output) the validity of the monitored interval; that is, whether the information for the specified time period was accumulated over the entire time period or some portion of it. This parameter is not supported presently; leave it blank – its value will be "NULL".

Type: enum
Range: ADJ = Data manually adjusted or initialized
COMPL = Data accumulated over the entire time period
LONG = Data accumulated over greater than the entire time period
NA = Data not available
PRTL = Data accumulated over a portion of the time period
Default value: not applicable for output

locn Identifies the location of the storage counters from which to retrieve performance data. This parameter is not supported presently; leave it blank.

Type: enum
Range: FEND = Far end
NEND = Near end
Default value: NEND

dirn Identifies the direction of the data stored in statistics counters. This parameter is not supported presently; leave it blank.

Type: enum
Range: BTH = Both directions
RCV = Receive direction only
TRMT = Transmit direction only
Default value: BTH

tmper The accumulation period for performance counters. The only values currently allowed for *tmper* are "15-MIN" and "24-HR". This parameter is not supported presently; leave it blank.

Type: enum
Range: {1}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)
Default value: 15-MIN

mondat Indicates the monitored date. The value indicates the beginning date for the performance-monitoring period defined by *tmper*. The format is MM-DD. This parameter is not supported presently; leave it blank.

Type: enum
Range: {1-12}-{1-31}
Default value: current date

montm Indicates the monitored time. The value indicates the beginning time of day for the performance-monitoring period defined by *tmper*. The format is HH-MM. This parameter is not supported presently; leave it blank.

Type: enum
Range: {0-23}-{0-59}
Default value: current time

Input Example:

```
RTRV-PM-VOIPCKT::CTXT-1;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "CTXT-1:OCTTX,555555"
   "CTXT-1:PKTTX,111111"
   "CTXT-1:PKTSIDTX,0"
   "CTXT-1:JITTER,0"
   "CTXT-1:OCTRX,0"
   "CTXT-1:PKTRX,0"
   "CTXT-1:PKTLOST,0"
   "CTXT-1:PKTSIDRX,0"
   "CTXT-1:PKTLOSTPEER,0"
   "CTXT-1:JITTERPEER,0"
   "CTXT-1:SDULOST,0"
   "CTXT-1:JBCOUNT,0"
   "CTXT-1:RTDELAY,0"
   "CTXT-1:RTCPPKTTX,0"
   "CTXT-1:RTCPPKTRX,0"
;
```

Related Commands: none

RTRV-STATUS-CTXT

Command:

RTRV-STATUS-CTXT: Retrieve Status Context

Description:

RTRV-STATUS-CTXT lets the user retrieve information on TDM and packet terminations used on a MEGACO call.

Category: VoIP **Security:** View

Input Format:

```
RTRV-STATUS-CTXT:[TID]:[<ctxtId>]:[CTAG]::
   [<numCtxts>];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "CTXTID=<ctxtId>,[TDMTERMIDLIST=<tdmTermIdList>],
      [VOIPTERMIDLIST=<voipTermIdList>],
      [CONFERENCERSC=<conferenceRsc>],
      [TOPOLOGYLIST=<topologyList>]"
;
```

Parameters:

ctxtId Identifies the AID as a MEGACO context. A null value is equivalent to "ALL"; that is, by leaving the field blank, information for the number of VoIP contexts specified by *numCtxts* will be returned.

Type: integer
Range: {0-4294967295}
Default value: none

numCtxts Identifies (in input) the number of contexts for which to retrieve information.

Type: integer
Range: {0-32767}
Default value: 20

tdmTermIdList Identifies a list of TDM terminations, separated by ampersands (&), for the context.

Type: string
Range: alphanumeric characters, in the form:
Chassis/Termination type/IOM/DS3 port/DS1 port/Channel =
Chassis/TDM/IOM{1-17}/T{1-8}/P{1-28}/C{1-24}
Default value: none

voipTermIdList Identifies a list of VoIP terminations, separated by ampersands (&), for the context.

Type: string
Range: alphanumeric characters, in the form:
Chassis/Termination type/IOM/numeric ID for the VoIP termination =
Chassis/RTP/IOM{1-17}/32-bit field printed as hex
Default value: none

conferenceRsc Identifies a conference resource for the context.

Type: string
Range: alphanumeric characters, in the form:
Chassis/Termination type/numeric ID for the conference resource =
Chassis/CONF/32-bit field printed as hex
Default value: none

topologyList Identifies a list of topology specifications, separated by ampersands (&), for the context.

Type: string
Range: alphanumeric characters, in the form:
Source termination – Destination termination – Relationship, where the terminations can be in the formats shown by *tdmTermIdList* and *voipTermIdList*, and the relationship can be ONEWAY, BOTHWAYS, or ISOLATE
Default value: none

Input Example:

```
RTRV-STATUS-CTXT;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "CTXTID=3117056,
      TDMTERMIDLIST=LUCENT/TDM/IOM4/T3/P9/C10&,
      VOIPTERMIDLIST=LUCENT/RTP/IOM9/900e49f&,
      CONFERENCERSC=NULL,TOPOLOGYLIST=NULL"
   "CTXTID=3117058,
      TDMTERMIDLIST=LUCENT/TDM/IOM1/T7/P8/C23&,
      VOIPTERMIDLIST=LUCENT/RTP/IOM9/900e4a0&,
      CONFERENCERSC=NULL,TOPOLOGYLIST=NULL"
;
```

Related Commands: none

RTRV-STATUS-TDMTERMID

Command:

RTRV-STATUS-TDMTERMID: Retrieve Status TDMTERMID

Description:

RTRV-STATUS-TDMTERMID lets the user retrieve information on TDM terminations used on a MEGACO call.

Category: VoIP **Security:** View

Input Format:

```
RTRV-STATUS-TDMTERMID:[TID]:<tdmTermId>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<tdmTermId>:CTXTID=<ctxtId>,DURATION=<duration>,
      TDMSTATUS=<tdmstatus>,MODE=<mode>,
      ECHOCANCSTATE=<echocancstate>,
      ECHONLPSTATUS=<echonlpstatus>,
      ECHOTAIL=<echotail>,TXGAIN=<txGain>,
      RXGAIN=<rxGain>"
;
```

Parameters:

tdmTermId Identifies the AID as a TDM termination.

Type: TdmTermId
Range: alphanumeric characters, in the form:
Chassis/Termination type/IOM/DS3 port/DS1 port/Channel =
Chassis/TDM/IOM{1-17}/T{1-8}/P{1-28}/C{1-24}
Default value: none

ctxtId Identifies the MEGACO context.

Type: integer
Range: {0-4294967295}
Default value: none

duration Identifies the duration of the call in seconds.

Type: integer
Range: {0-4294967295}
Default value: none

tdmstatus Identifies the state of the TDM channel (DS0).

Type: enum
Range: IS = In-service
OOS = Out-of-service
Default value: none

mode Identifies the transmit mode for the termination.

Type: enum
Range: INACTIVE = termination not in use
LOOPBACK = termination in loopback
RECV_ONLY = receive only
SEND_ONLY = transmit only
SEND_RECV= transmit and receive
Default value: none

echocancstate Identifies whether echo cancellation can be enabled; that is, whether the termination has an associated DSP resource for echo cancellation.

Type: enum
Range: OFF = echo cancellation cannot be enabled
ON = echo cancellation can be enabled
Default value: none

echonlpstatus Identifies whether echo cancellation is currently enabled.

Type: enum
Range: OFF = echo cancellation disabled
ON = echo cancellation enabled
Default value: none

echotail Identifies the number of milliseconds after a transmission during which echoes are cancelled (when the value of *echonlpstatus* is “ON”).

Type: enum

Type: integer
Range: {0-128}
Default value: none

txGain Identifies the transmit gain for the termination in decibels.

Type: enum
Range: {6, 4, 3, 2, 0, -2, -3, -4, -6, -8, -9, -10, -12, -15}
Default value: none

rxGain Identifies the receive gain for the termination in decibels.

Type: enum
Range: {6, 4, 3, 2, 0, -2, -3, -4, -6, -8, -9, -10, -12, -15}
Default value: none

Input Example:

```
RTRV-STATUS-TDMTERMID::LUCENT/TDM/IOM3/T3/P1/C6;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "LUCENT/TDM/IOM3/T3/P1/C6:CTXTID=3000004,
      DURATION=100,TDMSTATUS=IS,MODE=SEND_ONLY,
      ECHOCANCSTATE=ON,ECHONLPSTATUS=ON,ECHOTAIL=0,
      TXGAIN=0,RXGAIN=0"
;
```

Related Commands: none

RTRV-STATUS-VOIPTERMID

Command:

RTRV-STATUS-VOIPTERMID: Retrieve Status VOIPTERMID

Description:

RTRV-STATUS-VOIPTERMID lets the user retrieve information on packet terminations.

Category: VoIP **Security:** View

Input Format:

```
RTRV-STATUS-VOIPTERMID:[TID]:<voipTermId>:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<voipTermId>:[CTXTID=<ctxtId>],
      DURATION=<duration>,MODE=<mode>,
      [LOCALIP=<localIp>],LOCALUDPPORT=<localUdpPort>,
      [REMOTEIP=<remoteIp>],
      REMOTEUDPPORT=<remoteUdpPort>,
      LOCALCODEC=<localCodec>,
      REMOTECODEC=<remoteCodec>"
;
```

Parameters:

voipTermId Identifies the AID as a packet termination.

Type: RtpTermId
Range: alphanumeric characters, in the form:
Chassis/Termination type/IOM/numeric ID for the ephemeral RTP termination =
Chassis/RTP/IOM{1-17}/32-bit field printed as hex
Default value: none

ctxtId Identifies the MEGACO context containing the termination.

Type: integer
Range: {0-4294967295}
Default value: none

duration Identifies the duration of the call in seconds.

Type: integer
Range: {0-65535}
Default value: none

mode Identifies the transmit mode.

Type: enum
Range: INACTIVE = termination inactive
LOOPBACK = termination in loopback
RECV_ONLY = receive
SEND_ONLY = transmit
SEND_RECV = transmit and receive
Default value: none

localIp Identifies the local IP address.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

localUdpPort Identifies the local UDP port.

Type: integer
Range: {1025-66535}
Default value: none

remoteIp Identifies the remote IP address.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

remoteUdpPort Identifies the remote UDP port.

Type: integer
Range: {1025-66535}
Default value: none

localCodec Identifies the audio codec (coding/decoding algorithm types) used at the near end.

Type: enum

Range: CISCOCLEARCHANNEL = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
CLEARMODE = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
G711 = G.711 for mu-law PCM encoding (North America)
G711ALAW = G.711 for a-law PCM encoding (Europe)
G723_53 = G.723 encoding at 5.3 Kbps
G723_63 = G.723 encoding at 6.3 Kbps
G726_16 = G.726 encoding at 16 Kbps (currently unsupported)
G726_24 = G.726 encoding at 24 Kbps (currently unsupported)
G726_32 = G.726 encoding at 32 Kbps
G726_40 = G.726 encoding at 40 Kbps (currently unsupported)
G729 = G.729A encoding
G729E = G.729E encoding (currently unsupported)
NULL = no value specified
X_CCD = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream

Default value: none

remoteCodec Identifies the audio codec (coding/decoding algorithm types) used at the far end.

Type: enum

Range: CISCOCLEARCHANNEL = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
CLEARMODE = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream
G711 = G.711 for mu-law PCM encoding (North America)
G711ALAW = G.711 for a-law PCM encoding (Europe)
G723_53 = G.723 encoding at 5.3 Kbps
G723_63 = G.723 encoding at 6.3 Kbps
G726_16 = G.726 encoding at 16 Kbps (currently unsupported)
G726_24 = G.726 encoding at 24 Kbps (currently unsupported)
G726_32 = G.726 encoding at 32 Kbps
G726_40 = G.726 encoding at 40 Kbps (currently unsupported)
G729 = G.729A encoding
G729E = G.729E encoding (currently unsupported)
NULL = no value specified
X_CCD = encoding algorithm for the transmission of clear channel data (unrestricted digital data, i.e., ISDN HDLC traffic) in an RTP media stream

Default value: none

Input Example:

```
RTRV-STATUS-VOIPTERMID::LUCENT/RTP/IOM9/900e49f;
```

Output Example:

```
   lucent 2005-05-15 14:37:49
M  0 COMPLD
   "LUCENT/RTP/IOM9/900e49f:CTXTID=3000004,DURATION=9,
      LOCALIP=70.0.1.11,LOCALUDPPORT=2000,
      REMOTEIP=70.0.1.11,REMOTEUDPPORT=2000,
      LOCALCODEC=G711,REMOTECODEC=G711"
;
```

Related Commands: none

NOTES

DLT/ED/ENT/RTRV-SNMP-ACCESS

Commands:

DLT-SNMP-ACCESS: Delete SNMP Access

ED-SNMP-ACCESS: Edit SNMP Access

ENT-SNMP-ACCESS: Enter SNMP Access

RTRV-SNMP-ACCESS: Retrieve SNMP Access

Descriptions:

DLT-SNMP-ACCESS lets the user delete an SNMP access group.

ED-SNMP-ACCESS lets the user change the views associated with an SNMP access group.

ENT-SNMP-ACCESS lets the user establish an SNMP access group and its associated views.

RTRV-SNMP-ACCESS lets the user retrieve the views associated with an SNMP access group.

Category: VoIP **Security:** NSA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-SNMP-ACCESS:[TID]:<SnmpAccessAid>:[CTAG];

ED-SNMP-ACCESS:[TID]:<SnmpAccessAid>:[CTAG]::
   [READVIEW=<ReadView>],[WRITEVIEW=<WriteView>],
   [NOTIFYVIEW=<NotifyView>];

ENT-SNMP-ACCESS:[TID]:<SnmpAccessAid>:[CTAG]::
   [READVIEW=<ReadView>],[WRITEVIEW=<WriteView>],
   [NOTIFYVIEW=<NotifyView>];

RTRV-SNMP-ACCESS:[TID]:[<SnmpAccessAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<SnmpAccessAid>:READVIEW=<ReadView>,
      WRITEVIEW=<WriteView>,NOTIFYVIEW=<NotifyView>"
;
```

Parameters:

SnmpAccessAid Identifies the AID as an SNMP access group. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for all SNMP access groups in the system will be returned.

Type: SnmpAccessAid
Range: <GROUPNAME>[-{SECLEVEL}[-{SECMODEL}]], where

GROUPNAME = up to 32 alphanumeric characters (including underscores "_") used to identify a set of views for access control

SECLEVEL = the minimum security level required by a message to access the group. Allowed values are:

AUTHNOPRIV = authentication and no privacy (default)
AUTHPRIV = authentication and privacy
NOAUTHNOPRIV = no authentication, no privacy

SECMODEL = security model required for access to the group. Allowed values are:

ANY = any security model
SNMPV1 = SNMP version 1 security
SNMPV2C = SNMP version 2c security
USM = User-Based Security (default)

Default value: none

ReadView Identifies the name of the read view for read access. If no view exists with this name then no access is authorized. A null value indicates no access.

Type: string
Range: up to 32 alphanumeric characters (including underscores "_")
Default value: NULL

WriteView Identifies the name of the write view for write access. If no view exists with this name then no access is authorized. A null value indicates no access.

Type: string
Range: up to 32 alphanumeric characters (including underscores "_")
Default value: NULL

NotifyView Identifies the name of the notify view for notify access. If no view exists with this name then no access is authorized. A null value indicates no access.

Type: string
Range: up to 32 alphanumeric characters (including underscores "_")
Default value: NULL

Input Examples:

```
DLT-SNMP-ACCESS::LUCENT;

ED-SNMP-ACCESS::LUCENT:::READVIEW=READ_VIEW,
   WRITEVIEW=WRITE_VIEW,NOTIFYVIEW=NOTIFY_VIEW;

ENT-SNMP-ACCESS::LUCENT:::READVIEW=READ_VIEW,
   WRITEVIEW=WRITE_VIEW,NOTIFYVIEW=NOTIFY_VIEW;

RTRV-SNMP-ACCESS::LUCENT;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   "LUCENT:READVIEW=READ_VIEW,WRITEVIEW=WRITE_VIEW,
      NOTIFYVIEW=NOTIFY_VIEW"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-SNMP-COMM

Commands:

DLT-SNMP-COMM: Delete SNMP COMM

ED-SNMP-COMM: Edit SNMP COMM

ENT-SNMP-COMM: Enter SNMP COMM

RTRV-SNMP-COMM: Retrieve SNMP COMM

Descriptions:

DLT-SNMP-COMM lets the user delete a community string for SNMP requests.

ED-SNMP-COMM lets the user change the parameters associated with a community string for SNMP requests.

ENT-SNMP-COMM lets the user establish a community string for SNMP requests.

RTRV-SNMP-COMM lets the user retrieve the parameters associated with a community string for SNMP requests

Category: VoIP **Security:** NSA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-SNMP-COMM:[TID]:<CommStr>:[CTAG];

ED-SNMP-COMM:[TID]:<CommStr>:[CTAG]::
   [IPADDR=<IpAddr>],[SUBNETMASK=<SubNetMask>],
   [ACCESSTYPE=<AccessType>];

ENT-SNMP-COMM:[TID]:<CommStr>:[CTAG]::
   [IPADDR=<IpAddr>],[SUBNETMASK=<SubNetMask>],
   [ACCESSTYPE=<AccessType>];

RTRV-SNMP-COMM:[TID]:[<CommStr>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<CommStr>:IPADDRESS=<IpAddress>,
      SUBNETMASK=<SubNetMask>,ACCESS=<AccessType>"
;
```

Parameters:

CommStr Identifies the AID as a community string. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for all community strings in the system will be returned.

Type: string
Range: up to 20 alphanumeric characters (including underscores "_")
Default value: none

IpAddress Identifies the IP address of the Network Management Station for the community string. Use 0.0.0.0 for any host.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: 0.0.0.0

SubNetMask Identifies the subnet mask of the Network Management Station for the community string. Use 0.0.0.0 for any host and 255.255.255.255 for a single host.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: 0.0.0.0 for any host, 255.255.255.255 for a single host

AccessType Identifies the access privilege level allowed. READONLY is the only access level currently used.

Type: enum
Range: READONLY
READWRITE
Default value: READONLY

Input Examples:

```
DLT-SNMP-COMM::COMMSTR1;

ED-SNMP-COMM::COMMSTRING1:::IPADDR=192.0.24.57,
   SUBNETMASK=255.255.255.255,ACCESSTYPE=READONLY;

ENT-SNMP-COMM::COMMSTRING1:::IPADDR=192.0.24.57,
   SUBNETMASK=255.255.255.255,ACCESSTYPE=READONLY;

RTRV-SNMP-COMM::COMMSTR1;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   "COMMSTRING1:IPADDRESS=192.0.24.57,
      SUBNETMASK=255.255.255.255,ACCESS=READONLY"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-SNMP-TRAP

Commands:

DLT-SNMP-TRAP: Delete SNMP Trap

ED-SNMP-TRAP: Edit SNMP Trap

ENT-SNMP-TRAP: Enter SNMP Trap

RTRV-SNMP-TRAP: Retrieve SNMP Trap

Descriptions:

DLT-SNMP-TRAP lets the user delete an SNMP trap destination..

ED-SNMP-TRAP lets the user change the parameters for handling traps by the SNMP Agent.

ENT-SNMP-TRAP lets the user establish the parameters for handling traps by the SNMP Agent.

RTRV-SNMP-TRAP lets the user retrieve the parameters for handling traps by the SNMP Agent.

Category: VoIP **Security:** NSA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-SNMP-TRAP:[TID]:<IpAddr>:[CTAG];
```

```
ED-SNMP-TRAP:[TID]:<IpAddr>:[CTAG]::
   [COMMSTR=<CommStr>],[TRAPTYPE=<TrapType>],
   [ALLOWCRITICAL=<AllowCritical>],
   [ALLOWMAJOR=<AllowMajor>],
   [ALLOWMINOR=<AllowMinor>],
   [ALLOWEVENT=<AllowEvent>],[ALLOWT1=<AllowT1>],
   [ALLOWT3=<AllowT3>],[ALLOWSTS1=<AllowSTS1>],
   [ALLOWLINKUP=<AllowLinkUp>],
   [ALLOWLINKDOWN=<AllowLinkDown>],
   [ALLOWEQPT=<AllowEqpt>],[ALLOWOC=<AllowOC>],
   [ALLOWCOMM=<AllowComm>],[TRAPMODE=<TrapMode>];
```

```
ENT-SNMP-TRAP:[TID]:<IpAddr>:[CTAG]::
   [COMMSTR=<CommStr>],[TRAPTYPE=<TrapType>],
   [ALLOWCRITICAL=<AllowCritical>],
   [ALLOWMAJOR=<AllowMajor>],
   [ALLOWMINOR=<AllowMinor>],
   [ALLOWEVENT=<AllowEvent>],[ALLOWT1=<AllowT1>],
   [ALLOWT3=<AllowT3>],[ALLOWSTS1=<AllowSTS1>],
   [ALLOWLINKUP=<AllowLinkUp>],
   [ALLOWLINKDOWN=<AllowLinkDown>],
   [ALLOWEQPT=<AllowEqpt>],[ALLOWOC=<AllowOC>],
   [ALLOWCOMM=<AllowComm>],[TRAPMODE=<TrapMode>];

RTRV-SNMP-TRAP:[TID]:[<IpAddr>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<IpAddress>:[COMMSTR=<CommStr>],
      TRAPTYPE=<TrapType>,
      ALLOWCRITICAL=<AllowCritical>,
      ALLOWMAJOR=<AllowMajor>,ALLOWMINOR=<AllowMinor>,
      ALLOWEVENT=<AllowEvent>,ALLOWT1=<AllowT1>,
      ALLOWT3=<AllowT3>,ALLOWSTS1=<AllowSTS1>,
      ALLOWLINKUP=<AllowLinkUp>,
      ALLOWLINKDOWN=<AllowLinkDown>,
      ALLOWEQPT=<AllowEqpt>,ALLOWOC=<AllowOC>,
      ALLOWCOMM=<AllowComm>,TRAPMODE=<TrapMode>"
;
```

Parameters:

IpAddr Identifies the IP address of a Network Management Station to which traps can be sent. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for all Network Management Stations in the system will be returned.

Type: string
Range: {0-255}.{0-255}.{0-255}.{0-255}
Default value: none

CommStr Identifies the community string for traps sent to the Network Management Station identified by *IpAddress*.

Type: string
Range: up to 20 alphanumeric characters (including underscores “_”)
Default value: TRAP

TrapType Identifies the type for traps sent to the Network Management Station identified by *IpAddress*.

Type: enum
Range: V1TRAP = send SNMPv1 trap
V2TRAP = send SNMPv2 trap
Default value: V1TRAP

AllowCritical Identifies whether the SNMP agent can send critical alarmed traps.

Type: BoolYN
Range: N = SNMP agent does not allow critical alarmed traps
Y = SNMP agent allows critical alarmed traps
Default value: Y

AllowMajor Identifies whether the SNMP agent can send major alarmed traps.

Type: BoolYN
Range: N = SNMP agent does not allow major alarmed traps
Y = SNMP agent allows major alarmed traps
Default value: Y

AllowMinor Identifies whether the SNMP agent can send minor alarmed traps.

Type: BoolYN
Range: N = SNMP agent does not allow minor alarmed traps
Y = SNMP agent allows minor alarmed traps
Default value: Y

AllowEvent Identifies whether the SNMP agent can send event traps.

Type: BoolYN
Range: N = SNMP agent does not allow event traps
Y = SNMP agent allows event traps
Default value: Y

AllowT1 Identifies whether the SNMP agent can send T1 traps.

Type: BoolYN
Range: N = SNMP agent does not allow T1 traps
Y = SNMP agent allows T1 traps
Default value: Y

AllowT3 Identifies whether the SNMP agent can send T3 traps.

Type: BoolYN
Range: N = SNMP agent does not allow T3 traps
Y = SNMP agent allows T3 traps
Default value: Y

AllowSTS1 Identifies whether the SNMP agent can send STS1 traps.

Type: BoolYN
Range: N = SNMP agent does not allow STS1 traps
Y = SNMP agent allows STS1 traps
Default value: Y

AllowLinkUp Identifies whether the SNMP agent can send traps when a link is "up".

Type: BoolYN
Range: N = SNMP agent does not allow "link is up" traps
Y = SNMP agent allows "link is up" traps
Default value: Y

AllowLinkDown Identifies whether the SNMP agent can send traps when a link is "down".

Type: BoolYN
Range: N = SNMP agent does not allow "link is down" traps
Y = SNMP agent allows "link is down" traps
Default value: Y

AllowEqpt Identifies whether the SNMP agent can send equipment traps.

Type: BoolYN
Range: N = SNMP agent does not allow equipment traps
Y = SNMP agent allows equipment traps
Default value: Y

AllowOC Identifies whether the SNMP agent can send OCn traps.

Type: BoolYN
Range: N = SNMP agent does not allow OCn traps
Y = SNMP agent allows OCn traps
Default value: Y

AllowComm Identifies whether the SNMP agent can send common traps; that is, all traps (signaling, billing, statistics, etc.) other than those in the previous parameters.

Type: BoolYN
Range: N = SNMP agent does not allow common traps
Y = SNMP agent allows common traps
Default value: Y

TrapMode Identifies whether to map all events into approximately 16 traps, or to have a one-to-one mapping between events and traps (i.e. each event maps to a trap with a unique OID).

Type: BoolYN
Range: GENERIC = map all events into approximately 16 traps
SPECIFIC = one-to-one mapping between events and traps
Default value: GENERIC

Input Examples:

```
DLT-SNMP-TRAP::192.0.24.57;

ED-SNMP-TRAP::192.0.24.57:::COMMSTR=TRAP,
   TRAPTYPE=V1TRAP,ALLOWCRITICAL=Y,ALLOWMAJOR=Y,
   ALLOWMINOR=Y,ALLOWEVENT=Y,ALLOWT1=Y,ALLOWT3=Y,
   ALLOWSTS1=Y,ALLOWLINKUP=Y,ALLOWLINKDOWN=Y,
   ALLOWEQPT=Y,ALLOWOC=Y,ALLOWCOMM=Y,TRAPMODE=GENERIC;

ENT-SNMP-TRAP::192.0.24.57:::COMMSTR=TRAP,
   TRAPTYPE=V1TRAP,ALLOWCRITICAL=Y,ALLOWMAJOR=Y,
   ALLOWMINOR=Y,ALLOWEVENT=Y,ALLOWT1=Y,ALLOWT3=Y,
   ALLOWSTS1=Y,ALLOWLINKUP=Y,ALLOWLINKDOWN=Y,
   ALLOWEQPT=Y,ALLOWOC=Y,ALLOWCOMM=Y,TRAPMODE=GENERIC;

RTRV-SNMP-TRAP::192.0.24.57;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   "192.0.24.57:COMMSTR=TRAP,TRAPTYPE=V1TRAP,
      ALLOWCRITICAL=Y,ALLOWMAJOR=Y,ALLOWMINOR=N,
      ALLOWEVENT=Y,ALLOWT1=Y,ALLOWT3=Y,ALLOWSTS1=Y,
      ALLOWLINKUP=Y,ALLOWLINKDOWN=Y,ALLOWEQPT=Y,
      ALLOWOC=Y,ALLOWCOMM=Y,TRAPMODE=GENERIC"
;
```

Related Commands: none

DLT/ED/ENT/RTRV-SNMP-USER

Commands:

DLT-SNMP-USER: Delete SNMP User

ED-SNMP-USER: Edit SNMP User

ENT-SNMP-USER: Enter SNMP User

RTRV-SNMP-USER: Retrieve SNMP User

Descriptions:

DLT-SNMP-USER lets the user delete an SNMPv3 user for SNMPv3 access.

ED-SNMP-USER lets the user change the group name, authentication password, and privacy password for an SNMPv3 user for SNMPv3 access.

ENT-SNMP-USER lets the user establish an SNMPv3 user for SNMPv3 access.

RTRV-SNMP-USER lets the user retrieve the authentication protocol, privacy protocol, and group name for an SNMPv3 user.

Category: VoIP **Security:** NSA for DLT/ED/ENT, View for RTRV

Input Formats:

```
DLT-SNMP-USER:[TID]:<UserName>:[CTAG];

ED-SNMP-USER:[TID]:<UserName>:[CTAG]::
   [GRPNAME=<GrpName>]:<AuthPasswd>],<PrivPasswd>];

ENT-SNMP-USER:[TID]:<UserName>:[CTAG]::
   AUTHTYPE=<AuthType>,PRIVTYPE=<PrivType>,
   GRPNAME=<GrpName>:[<AuthPasswd>],[<PrivPasswd>];

RTRV-SNMP-USER:[TID]:[<UserName>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<UserName>:AUTHTYPE=<AuthType>,
      PRIVTYPE=<PrivType>,GRPNAME=<GrpName>"
;
```

Parameters:

UserName Identifies the AID as an SNMPv3 user name. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for all SNMPv3 users in the system will be returned.

Type: string
Range: up to 32 alphanumeric characters (including underscores "_")
Default value: none

AuthType Identifies the authentication protocol for the user.

Type: enum
Range: MD5 = authentication protocol HMAC-MD5-96
NONE= no authentication
SHA = authentication protocol HMAC-SHA-96
Default value: none

PrivType Identifies the privacy protocol for the user. The value of *PrivType* must be "NONE" when the value of *SnmpAuth* is "NONE".

Type: enum
Range: DES = privacy protocol CBC-DES
NONE = no privacy
Default value: none

GrpName Identifies the name of the group that the user belongs to for access control. The group does not have to be created in order to assign the group name for a user but until the group is created the user effectively is not enabled to access any information in the SNMP entity (agent).

Type: string
Range: up to 32 alphanumeric characters (including underscores "_")
Default value: none

AuthPasswd Identifies the password used to generate the authentication key. The entered password displays as a series of asterisks.

Type: string
Range: 8 to 63 alphanumeric characters (including underscores "_")
Default value: none

PrivPasswd Identifies the password used to generate the privacy key. It cannot be the same value as the authentication password. The entered password displays as a series of asterisks.

Type: string
Range: 8 to 63 alphanumeric characters (including underscores "_")
Default value: none

Input Examples:

```
DLT-SNMP-USER::SNMPUSER1;

ED-SNMP-USER::SNMPUSER1:::GRPNAME=LUCENT:********,
   ********;

ENT-SNMP-USER::SNMPUSER1:::AUTHTYPE=NONE,
   PRIVTYPE=NONE,GRPNAME=LUCENT:********,********;

RTRV-SNMP-USER::SNMPUSER1;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   "SNMPUSER1:AUTHTYPE=NONE,PRIVTYPE=NONE,
      GRPNAME=LUCENT"
;
```

Related Commands: none

DLT/ENT/RTRV-SNMP-VIEW

Commands:

DLT-SNMP-VIEW: Delete SNMP View

ENT-SNMP-VIEW: Enter SNMP View

RTRV-SNMP-VIEW: Retrieve SNMP View

Descriptions:

DLT-SNMP-VIEW lets the user delete a view associated with SNMP access groups.

ENT-SNMP-VIEW lets the user establish a view associated with SNMP access groups.

RTRV-SNMP-VIEW lets the user retrieve the view types and masks associated with SNMP access groups.

Category: VoIP **Security:** NSA for DLT and ENT, View for RTRV

Input Formats:

```
DLT-SNMP-VIEW:[TID]:<SnmpViewAid>:[CTAG];

ENT-SNMP-VIEW:[TID]:<SnmpViewAid>:[CTAG]::
   [VIEWTYPE=<ViewType>],[VIEWMASK=<ViewMask>];

RTRV-SNMP-VIEW:[TID]:[<SnmpViewAid>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<SnmpViewAid>:VIEWTYPE=<ViewType>,
      VIEWMASK=<ViewMask>"
;
```

Parameters:

SnmpViewAid Identifies the AID as an SNMP access group view. A null value (in RTRV) is equivalent to "ALL"; that is, by leaving the field blank, information for all SNMP access group views in the system will be returned. A null value for the second part of the AID (in DLT and RTRV) lets the user delete or retrieve the types and masks for an entire set of view trees.

Type: SnmpViewAid
Range: <VIEWNAME>[-<VIEWTREE>], where

VIEWNAME = up to 32 alphanumeric characters (including underscores "_") used to identify a set of view trees

VIEWTREE = up to 63 digits (0-9) and periods (".") that identify the view subtree in numerical dotted notation. For example, the object identifier (OID) for the Internet is "1.3.6.1".

Default value: none

ViewType Identifies whether the view is included in the MIB view.

Type: enum
Range: EXCLUDED = view is not included in the MIB view
INCLUDED = view is included in the MIB view
Default value: INCLUDED

ViewMask Identifies the view tree bit mask (an octet string of 0 to 16 octets) where each bit represents whether to wildcard the corresponding object sub-identifier in the view tree. If the bit value is "0" then the sub-identifier is wildcarded and any value matches. The viewmask is extended with "1"s to match the number of sub-identifiers in the view tree.

Type: string
Range: 0 to 16 octets (hex bytes)
NULL
Default value: NULL

Input Examples:

```
DLT-SNMP-VIEW::INTERNET-1.3.6.1;

ENT-SNMP-VIEW::INTERNET-1.3.6.1:VIEWTYPE=INCLUDED,
   VIEWMASK=NULL;

RTRV-SNMP-VIEW::INTERNET-1.3.6.1;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   "INTERNET-1.3.6.1:VIEWTYPE=INCLUDED,VIEWMASK=NULL"
;
```

Related Commands: none

ED/RTRV-SNMP-SYS

Commands:

ED-SNMP-SYS: Edit SNMP System

RTRV-SNMP-SYS: Retrieve SNMP System

Descriptions:

ED-SNMP-SYS lets the user configure SNMP Agent parameters and Trap Rate Limiting.

RTRV-SNMP-SYS lets the user retrieve Trap Rate Limiting and SNMP Agent parameters.

Category: VoIP **Security:** NSA for ED, View for RTRV

Input Formats:

```
ED-SNMP-SYS:[TID]:[<src>]:[CTAG]::
   [TRAPLIMITCNT=<TrapLimitCnt>],
   [TRAPLIMITPERIOD=<TrapLimitPeriod>],
   [SNMPENB=<SnmpEnb>],[AUTHTRAPENB=<AuthTrapEnb>],
   [SYSNAME=<SysName>],[SYSCONTACT=<SysContact>];
```

```
RTRV-SNMP-SYS:[TID]:[<src>]:[CTAG];
```

Output Format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<src>:TRAPLIMITCNT=<TrapLimitCnt>,
      TRAPLIMITPERIOD=<TrapLimitPeriod>,
      SNMPENB=<SnmpEnb>,AUTHTRAPENB=<AuthTrapEnb>,
      [SYSNAME=<SysName>],[SYSCONTACT=<SysContact>]"
;
```

Parameters:

src Identifies the AID as the switch media gateway.

Type: COM
Range: COM
Default value: COM

TrapLimitCnt Identifies the trap rate limit count – the maximum number of traps that can be sent by the SNMP agent during the time period defined by *TrapLimitPeriod*. Setting the value to "0" prevents the SNMP agent sending any traps. The factory default is 65535.

Type: integer
Range: {0-65535}
Default value: not applicable

TrapLimitPeriod Identifies the time period, in seconds, during which the SNMP agent can send traps. The factory default is 60 seconds.

Type: integer
Range: {0-65535}
Default value: not applicable

SnmpEnb Identifies whether the SNMP agent can process incoming messages and send traps. The factory default is "Y".

Type: BoolYN
Range: N = SNMP agent not enabled
Y = SNMP agent enabled
Default value: not applicable

AuthTrapEnb Identifies whether the SNMP agent can send "authentication failure" traps. The factory default is "Y".

Type: BoolYN
Range: N = SNMP agent not enabled to send "authentication failure" traps
Y = SNMP agent enabled to send "authentication failure" traps
Default value: not applicable

SysName Identifies the system name for the SNMP agent. The factory default is the fully qualified domain name.

Type: string
Range: up to 63 alphanumeric characters (including underscores "_")
Default value: not applicable

SysContact Identifies the name of the system administrator for the SNMP agent. The factory default is "NULL".

Type: string
Range: up to 63 alphanumeric characters (including underscores "_")
Default value: not applicable

Input Examples:

```
ED-SNMP-SYS::COM:::TRAPLIMITCNT=10,TRAPLIMITPERIOD=10,
   SNMPENB=Y,AUTHTRAPENB=Y,SYSNAME=LUCENT.LUCENT.COM,
   SYSCONTACT=JOHN_STAMAND;

RTRV-SNMP-SYS;
```

Output Example:

```
   lucent 2004-10-29 14:37:49
M  0 COMPLD
   "COM:TRAPLIMITCNT=65535,TRAPLIMITPERIOD=60,
      SNMPENB=Y,AUTHTRAPENB=Y,
      SYSNAME=LUCENT.LUCENT.COM,
      SYSCONTACT=JOHN_STAMAND"
;
```

Related Commands: none

CANC

Message:

CANC: Cancel

Description:

CANC is an automatic message transmitted by the switch to an administrator when a session established by a user is terminated because of "timeout"; i.e., no messages were exchanged during a given interval.

Category: Automatic Messages **Security:** ADMIN

Input Format: none

Output Format:

```
   SID DATE TIME
A  ATAG CANC
   "<uid>"
;
```

Parameters:

uid Identifies the user. The UID is the user ID or login name.

Range: 8 – 16 characters

Output Example:

```
   lucent 2005-05-15 14:37:49
A  1 CANC
   "JOHNUSER"
   /* CANC */
;
```

REPT ALM <ReptAid>

Message:

REPT ALM <ReptAid>: Report Alarm (ALL, COM, ENET, EQPT, STS1, T1, T3)

Description:

REPT ALM messages are generated automatically by the switch to report the onset or clearing of an alarm condition that requires immediate attention. Non-alarmed conditions are reported with REPT EVT. REPT ALM does not signal environmental alarms.

Category: Automatic Messages **Security:** View

Input Format: none

Output Format:

```
   SID DATE TIME
** ATAG REPT ALM <ReptAid>
   "<alm_id>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,
      <ocrtm>,[<locn>],[<dirn>],[<monval>],[<thlev>],
      [<tmper>]:[<conddescr>],[<aiddet>],[<obsdbhvr>],
      [<exptdbhvr>]:[<termination>],[<tblisltd>]"
;
```

Parameters:

ReptAid Identifies the type of entity within the switch from which to retrieve alarms.

Type: ReptAid
Range: ALL = Designates the switch and all entities within it
COM = Common – designates the switch as a discreet entity
ENET = Ethernet ports
EQPT = Equipment – designates major assemblies
STS1 = STS1 ports
T1 = T1 ports
T3 = T3 ports
Default value: none

alm_id Identifies the specific entity within the switch to which the message pertains.

Range: ASCII characters

ntfcncde The notification code of the event that caused the condition to be reported. This indicates the alarm level.

Range: CL = Cleared. Never used in provisioning requests or returned in RTRVs - only active conditions are available through the RTRV-EVT/COND/ALM messages and by definition their notification codes are never CL/CLEAR.
CR = Critical
MJ = Major
MN = Minor
NA = Not Alarmed

condtype Indicates the condition type for an alarm or a reported event.

Range: alphanumeric characters

srveff The effect on service caused by the alarm condition.

Range: SA = Service-affecting condition.
NSA = Non-service-affecting condition

ocrdat Date when the specific event or violation occurred.

Range: {1-12}-{1-31} = {month}-{day of month}

ocrtm Time when the specific event or violation occurred.

Range: {0-23}-{0-59}-{0-59} = {hour}-{minute}-{second}
{0-23}-{0-59} = {hour}-{minute}

locn Indicates the location of the storage registers or event counters where the specific event or violation occurred. A null value defaults to all applicable locations.

Range: FEND = Far end
NEND = Near end

dirn The direction relative to the IOM or port on an IOM in the switch to which the command pertains. A null value defaults to all applicable directions.

Range: AZ = Transmit
BTH = Both directions
NA = Not applicable
RCV = Receive direction only
TDTC = Transmit direction toward customer
TDTN = Transmit direction toward network
TRMT = Transmit direction only
ZA = Receive

monval Monitored value is either the measured value of the monitored parameter, or the value to which the register identified by *montype* is to be initialized. The value is in the form of numeric counts or rates. A null value indicates that there is no measured value associated with this trouble or event, or it is not accessible for remote reporting.

Range: {1-9999}

thlev Identifies the threshold level. *thlev* is reported if the alarm report has resulted from a degradation that has exceeded the defined or specified threshold level. A null value indicates that there is no threshold level associated with this event, or it is not accessible for remote reporting.

Range: {1-9999}

tmper The accumulation period for performance counters. A null value defaults to “not applicable”.

Range: {1}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)

conddescr Describes the alarm condition. A null value in this parameter means there is no information to report.

Range: alphanumeric characters

aiddet Specifies additional details about the entity being managed. Identifies the supplementary equipment used to identify the location of the reported trouble. A null value in this parameter means there is no information to report.

Range: COM
ENTITYID

obsdbhvr Identifies the observed behavior that resulted in the reported trouble. A null value in this parameter means there is no information to report.

Range: alphanumeric characters

exptdbhvr Identifies the expected behavior whose deviation is described in *obsdbhbr*. A null value in this parameter means there is no information to report.

Range: alphanumeric characters

termination Indicates how the diagnostic routine terminated in the event of a failure. A null value in this parameter means there is no information to report.

Range: IMED = Procedure stopped testing a unit when failure was received, and proceeded to any remaining equipment units.

NORM = The diagnostic terminated normally. The switch completed the entire set of phases and iterations of the procedure regardless of failed phases.

tblisltd Identifies the type of event with an integer. A null value defaults to "not applicable".

Range: {1-9999}

Output Example:

```
   lucent 2005-05-15 14:37:49
A  2 REPT ALM EQPT
   "IOM-7:CL,PRCDRERR,NSA,05-15,18-35-03:\"Module in
      Slot 7 present but not provisioned\":79"
;
```

REPT ALM SECU

Message:

REPT ALM SECU: Report Alarm Security

Description:

REPT ALM SECU messages are generated autonomously by the switch to report the onset or clearing of a security alarm condition that requires immediate attention. Non-alarmed conditions are reported with REPT EVT.

Category: Automatic Messages **Security:** View

Input Format: none

Output Format:

```
   SID DATE TIME
** ATAG REPT ALM SECU
   "<SecRepAid>:<ntfcncde>,<securityAlarmType>"
;
```

Parameters:

SecRepAid Identifies the entity to which the alarm pertains. For example, in the case of a buffer overflow, it identifies the security log (SECULOG). For a security alarm of type "INTRUSION", the AID is the CID where the intrusion occurred.

Range: alphanumeric characters

ntfcncde The notification code of the event that caused the condition to be reported. This indicates the alarm level.

Range: CL = Cleared. Never used in provisioning requests or returned in RTRVs - only active conditions are available through the RTRV-EVT/COND/ALM messages and by definition their notification codes are never CL/CLEAR.
CR = Critical
MJ = Major
MN = Minor
NA = Not Alarmed

securityAlarmType Identifies the type of security alarm.

Range: INTRUSION = Intrusion
LOGBUFR90 = Log buffer 90% full

Output Example:

```
   lucent 2005-05-15 14:37:49
** 1 REPT ALM SECU
   "SECULOG:NA,LOGBUFR90"
;
```

REPT BKUP

Message:

REPT BKUP: Report Backup

Description:

REPT BKUP messages are generated autonomously by the switch to report the completion (or non-completion) of a scheduled backup of the configuration data for the switch, including the TimesTen database. Use SCHED-BKUP-EQPT to schedule database backups; use RTRV-BKUPSCHED-EQPT to verify them.

Category: Automatic Messages **Security:** View

Input Format: none

Output Format:

```
   SID DATE TIME
** ATAG REPT BKUP
   "[<frommem>],[<fromdev>],[<tomem>],[<todev>]:
      [<memclass>],[<opt>]:[<status>]"
;
```

Parameters:

frommem Identifies the functional memory, file, or data area from which the data was to be copied.

Range: alphanumeric characters

fromdev Identifies the memory storage device in the switch from which the data was to be copied.

Range: alphanumeric characters

tomem Identifies the functional memory, file, or data area to which the data was to be copied.

Range: alphanumeric characters

todev Identifies the memory storage device in the switch to which the data was to be copied.

Range: alphanumeric characters

memclass Provides finer delimiting of the memory to be copied.

Range: alphanumeric characters

opt Identifies the option to be used for the copy.

Range: alphanumeric characters

status Identifies the pass/fail status of the scheduled backup operation. The switch returns an optional free-form text description of the failure when the value of *status* is “FAIL”.

Range: PASS = Backup occurred as scheduled.
FAIL = Backup operation has failed.

Output Example:

```
   lucent 2005-05-15 14:37:49
** 1 REPT BKUP
   "FROMMEM,,TOMEM::PASS"
;
```

REPT COND <ReptAid>

Message:

REPT COND <ReptAid>: Report Condition (ALL, COM, ENET, EQPT, STS1, T1, T3)

Description:

REPT COND provides a periodic report of standing conditions on the switch. The length of the interval between reports is determined by the value of the parameter *heartbeat* in the command ED-SYS-SECU. REPT-COND is generated when no activity occurs within the heartbeat timeframe. The schedule for these messages summarizes what already has been signaled by REPT EVT or by REPT ALM. It may not include threshold crossing conditions and may include conditions that are not reported at all in REPT ALM or REPT EVT messages. Unlike REPT ALM or REPT EVT, it supports multiple rows/conditions per message.

Category: Automatic Messages **Security:** View

Input Format: none

Output Format:

```
   SID DATE TIME
A  ATAG REPT COND <ReptAid>
   "[<cond_id>]:[<ntfcncde>],<condtype>,[<srveff>],
       [<ocrdat>],[<ocrtm>],[<locn>],[<dirn>],
       [<tmper>]"
;
```

Parameters:

AIDType Identifies the type of entity within the switch from which to report conditions.

Range: ALL = Designates the switch and all entities within it
COM = Common – designates the switch as a discreet entity
ENET = Ethernet ports
EQPT = Equipment – designates major assemblies
STS1 = STS1 ports
T1 = T1 ports
T3 = T3 ports

cond_id Identifies the specific entity within the switch to which the message pertains.

Range: ASCII characters

ntfcncde The notification code of the event that caused the condition to be reported. This indicates the alarm level. A null value defaults to "NA".

Range: CL = Cleared. Never used in provisioning requests or returned in RTRVs - only active conditions are available through the RTRV-EVT/COND/ALM messages and by definition their notification codes are never CL/CLEAR.
CR = Critical
MJ = Major
MN = Minor
NA = Not Alarmed

condtype Indicates the condition type for an alarm or a reported event.

Range: alphanumeric characters

srveff The effect on service caused by the alarm condition. A null value indicates that the effect on service is unknown or that the parameter is not used.

Range: SA = Service-affecting condition.
NSA = Non-service-affecting condition

ocrdat Date when the specific event or violation occurred. A null value defaults to the date in the message header.

Range: {1-12}-{1-31) = {month}-{day of month}

ocrtm Time when the specific event or violation occurred. A null value defaults to the time in the message header.

Range: {0-23}-{0-59}-{0-59} = {hour}-{minute}-{second}
{0-23}-{0-59} = {hour}-{minute}

locn Indicates the location of the storage registers or event counters to be initialized. A null defaults to either NEND or implies that there is no location associated with the response or automatic message.

Range: FEND = Far end
NEND = Near end

dirn The direction relative to the IOM or port on an IOM in the switch to which the command pertains. A null value defaults to "NA".

Range: AZ = Transmit
BTH = Both directions
NA = Not applicable
RCV = Receive direction only
TDTC = Transmit direction toward customer
TDTN = Transmit direction toward network
TRMT = Transmit direction only
ZA = Receive

tmper The accumulation period for performance counters. A null value defaults to "15-MIN".

Range: {1-31}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)

Output Example:

```
   lucent 2005-05-15 14:37:49
A  1 REPT COND
   "COM:MN,CONDTYPE,NSA,08-04,08-45-40,FEND,NA,15-MIN"
;
```

REPT DBCHG

Message:

REPT DBCHG: Report Database Change

Description:

REPT DBCHG messages are generated automatically by the switch to report database changes that have occurred as a result of commands entered to change equipment provisioning or configuration. Database changes include changes to the value of the TID or SID, the values of the keywords defined in the common block and specific block, the transition into and out of OOS-MA state, and RDLD (redlined) secondary state changes.

Category: Automatic Messages **Security:** View

Input Format: none

Output Format:

```
   SID DATE TIME
A  ATAG REPT DBCHG
   "<free-format text messages>"
;
```

Parameters: None – The response includes one line of data in double quotes, followed by a carriage return line feed, for each external update that has occurred. Within the quotes, the format resembles the block structure of input commands. In fact, the blocks defined here resemble an input command that would achieve a database change equivalent to the external update.

Output Example:

```
   lucent 2005-05-15 14:37:49
A  1 REPT DBCHG
   "DATE=2003-05-15,TIME=10-44-46,USERID=lucent,
      DBCHGSEQ=0:ent-eqpt::iom-7:BAA9UV0GAA,PRI,90,90,
      90,1.1.3.0.0.76:IS"
;
```

REPT EVT <ReptAid>

Message:

REPT EVT <ReptAid>: Report Event

Description:

REPT EVT <ReptAid> is generated by the switch to report the occurrence of non-alarmed events. An example is the crossing of a performance threshold.

Category: Automatic Messages **Security:** View

Input Format: none

Description: REPT EVT <ReptAid> is generated by the switch to report the occurrence of non-alarmed events. An example is the crossing of a performance threshold.

Output Format:

```
   SID DATE TIME
A  ATAG REPT EVT <ReptAid>
   "<evt_id>:<condtype>,[<condeff>],[<ocrdat>],
      [<ocrtm>],[<locn>],[<dirn>],[<monval>],
      [<thlev>],[<tmper>]:<desc>:[<tblisltd>]"
;
```

Parameters:

AIDType Identifies the type of entity within the switch from which to report conditions.

Range: ALL = Designates the switch and all entities within it
COM = Common – designates the switch as a discreet entity
ENET = Ethernet ports
EQPT = Equipment – designates major assemblies
STS1 = STS1 ports
T1 = T1 ports
T3 = T3 ports

evt_id Identifies the entity in the switch to which the message pertains. *evt_id* is the AID ALL and is optional. A null value is equivalent to "ALL" and avoids redundancy when the message code modifier is COM.

Range: ALL

condtype Indicates the condition type for an alarm or a reported event.

Range: alphanumeric characters

condeff Identifies the effect of the event on the condition of the switch. A null value defaults to “TC”.

Range: CL = A standing condition has cleared.
SC = A condition is active for an extended period of time.
TC = A condition does not change the basic condition of the switch for an extended period of time.

ocrdat Date when the specific event or violation occurred. A null value defaults to the date in the message header.

Range: {1-12}-{1-31) = {month}-{day of month}

ocrtm Date when the specific event or violation occurred. A null value defaults to the time in the message header.

Range: {0-23}-{0-59}-{0-59} = {hour}-{minute}-{second}
{0-23}-{0-59} = {hour}-{minute}

locn Indicates the location of the storage registers or event counters to be initialized. A null defaults to either NEND or implies that there is no location associated with the response or automatic message.

Range: FEND = Far end
NEND = Near end

dirn The direction relative to the IOM or port on an IOM in the switch to which the command pertains. A null value defaults to "NA".

Range: AZ = Transmit
BTH = Both directions
NA = Not applicable
RCV = Receive direction only
TDTC = Transmit direction toward customer
TDTN = Transmit direction toward network
TRMT = Transmit direction only
ZA = Receive

monval Monitored value is either the measured value of the monitored parameter, or the value to which the register identified by *montype* is to be initialized. The value is in the form of numeric counts or rates. A null value indicates that there is no measured value associated with this trouble or event, or it is not accessible for remote reporting.

Range: {1-9999}

thlev Identifies the threshold level. *thlev* is reported if the alarm report has resulted from a degradation that has exceeded the defined or specified threshold level. A null value indicates that there is no threshold level associated with this event, or it is not accessible for remote reporting.

Range: {1-9999}

tmper The accumulation period for performance counters. A null value defaults to "not applicable".

Range: {1-31}-DAY = Time interval is exactly one day
{1-24}-HR = Interval of one to 24 hours (one day)
{1-1440}-MIN = Interval of one to 1440 minutes (one day)

desc Describes the alarm condition.

Range: alphanumeric characters

tblisltd Identifies the type of event with an integer. A null value defaults to “not applicable”.

Range: {1-9999}

Output Example:

```
   lucent 2005-05-15 14:37:49
A  5 REPT EVT EQPT
   "IOM-7:INIT-50,TC,05-15,10-46-25:\"Module in slot 7
      has been restored to service\":25"
;
```

REPT EVT SESSION

Message:

REPT EVT SESSION: Report Event SESSION

Description:

REPT EVT SESSION is generated by the switch to report (to the user) the occurrence of a non-alarmed event related to establishing a session with the switch (i.e., a login for the switch). The following events are included in this category:

- The user's password is about to expire, or has expired. The user receives additional information if the password has expired but the "grace period" during which the existing password can still be used has not expired. Upon receiving this message, the user must update the password with the command ED-PID.
- When a request is made to establish a session with the switch (i.e., when a logon is attempted), the switch transmits a warning, before access is granted, regarding unauthorized entry/use and possible consequences.

Category: Automatic Messages **Security:** View

Input Format: none

Output Format:

```
   SID DATE TIME
A  ATAG REPT EVT SESSION
   "<ne_id>:<exp>,[<pcn>],<warn>"
;
```

Parameters:

ne_id Identifies the switch with which a session is attempted.

Range: alphanumeric characters

exp Indicates whether the password is currently valid (i.e., no password update is currently required), has expired, or is about to expire (i.e., updating is required or imminent).

Range: N = password updating unnecessary
Y = password updating required immediately or soon

pcn Indicates the number of days still remaining during which the existing password is allowed. No further logon will be allowed if the user has not updated the password when this number becomes zero. A null value defaults to "7".

Range: {1-999}-DAY

warn Represents the free-format text warning, before access is granted, regarding unauthorized entry/use and possible consequences.

Range: alphanumeric characters

Output Example:

```
   lucent 2005-05-15 14:37:49
*  0 REPT EVT SESSION
   "lucent:N,,/* NOTICE: This us a private computer
      system.  Unauthorized access or use may lead to
      prosecution.  Last login: Thu Aug 03 2003
      13:07:26 */"

;
```

Access Identifiers

1. ALL 4
2. AlmqSessionId 10
3. AltDnAid 10
4. AnncId 10
5. AnnouncementId 10
6. AudioMsgAid 11
7. BiccTrkAid 11
8. BlockListAid 11
9. CALLINGAREAAID 12
10. CaptAid 12
11. CaptSysId 13
12. CarrierCode 13
13. CasIfId 13
14. CasPrflId 13
15. CcAid 13
16. CccListAid 14
17. CcNpa 14
18. CcNpaNxx 14
19. CcNpaNxxStart 14
20. cgpnRouteAid 15
21. ChanIdGrp 15
22. CicPrflId 15
23. cl4SubId 16
24. COM 16
25. Cpc 16
26. CrvAidGrp 17
27. DgtModPrflAid 17
28. DgtScrnAid 18
29. DialPlanAid 22
30. DialPlanTrigAid 23
31. DigitModDnAid 23
32. DigitModGenAid 25
33. DigitModParamAid 26
34. DigitModTnsAid 27
35. ENET 28
36. FAN 28
37. IfGrpDs1Id 28
38. IfGrpNum 28
39. IomAid 29
40. IOMODULE 29
41. IOMorENET 29
42. IOMorOC 29

43. IOMorSP 30
44. IOMorSPorSF 30
45. IOMorSTS1 30
46. IOMorT3 30
47. IOMorT3orPORT 31
48. IOMorT3orPORTorBITS 31
49. isdnBcStaChannelStateAid 32
50. IsdnChanAid 32
51. IsdnIfNum 32
52. IsdnLink 32
53. IsdnRtAid 33
54. lapdAid 33
55. LinkId 34
56. ListCodeAid 34
57. LsetAid 34
58. MgcpLineAid 34
59. Mtp2PrflId 35
60. Mtp3PrflId 35
61. NNPAAid 35
62. NpaNxx 35
63. OC 35
64. PcAid 36
65. PcPrflId 36
66. PORT 36
67. PORTorBITS 36
68. PvcId 37
69. PvcPrflId 37
70. RelCauseAid 37
71. RouteAddrAid 37
72. RouteN11Aid 38
73. RouteSchedAid 39
74. RouteSs7Aid 39
75. RtId 39
76. RtIntfcAid 40
77. RtpTermId 40
78. SccpSsnAid 40
79. ScpAnncMap 41
80. ScreenDigitsAid 41
81. ScreenListAid 42
82. ServiceId 42
83. SlhrId 44
84. SnmpAccessAid 44
85. SnmpViewAid 45
86. SP 45
87. SPorIOM 45
88. Ss7LnkAid 45

89. Ss7PcAid 46
90. Ss7TrkAid 46
91. STS1 46
92. SubIfAid 46
93. SubSpeedAid 47
94. T0 47
95. T3 47
96. T3orPORT 48
97. T3PORT 48
98. TdmTermId 48
99. TestPortNum 48
100. TgnAid 49
101. TgnSipId 49
102. TransSchedAid 49
103. TrigEscListAID 50
104. TriggerAid 50
105. TrkAid 50
106. VMS 51
107. VoipPrfl 51
108. VpId 51
109. VpsId 51

The Access IDentification code (AID) directs an input command to its intended physical or data entity inside the NE. Equipment modules and facilities are typical examples of entities addressed by the access code.

1. ALL

Identifies the AID as all possible AIDs. This AID occurs only in autonomous messages returned by the switch.

AID	Patterns
AlmqSessionId	Up to eight hexadecimal characters
AltDnAid	<SUBSCRIBERID>-SUBSCRIBERID>
AnncId	{32767-65535}
AnnouncementId	{1-65535}
AudioMsgAid	{1-65535}-<VARIANT>
BiccTrkAid	{1-9999}-{0-16382}
BlockListAid	<BLOCKNAME>-<SCREENTYPE> [-<SCREENSTRING>]
CALLINGAREAAID	CALLINGAREASTRING-CENTERNAMESTRING
CaptAid	BICC CAS-IOM-{1-17}-PORT-{1-28} CAS-IOM-{1-17}-PORT-{1-28}-T0-{1-24} CAS-IOM-{1-17}-T3-{1-8}-PORT-{1-28} CAS-IOM-{1-17}-T3-{1-8}-PORT-{1-28}-T0-{1-24} ISDNIF-{1-32767} LSET-{1-20}
CaptSysId	{1}
CarrierCode	{0-9999}
CasIfId	{1-2147483645}
CasPrflId	{1-128}
CcAid	{1-99999}
CccListAid	{1-32767}-{up to 21 digits}
CcNpa	{1-99999}-{200-999}
CcNpaNxx	{1-99999}-{200-999}-{200-999}
CcNpaNxxStart	{1-99999}-{1-99999}-{1-99999}-{0-9999}
cgpnRouteAid	<RTADDR>-{ROUTEIDENT}

ChanIdGrp	IfGrpNum[-T0]
CicPrflId	{1-128}
cl4SubId	<subscriberId>-<callType> <subscriberId>-<carrier>
COM	COM
Cpc	{0-255}
CrvAidGrp	<ifGrpNum>-<crv>-<subIfId>
DgtModPrflAid	<dgtModName>[-<dgtString>[-<key> [-<nai>[-<minLen>]]]]
DgtScrnAid	<dgtScrnLbl>[-<primKey> [-<primKeyValue>[-<secKeyValue> [-<terKeyValue]]]]
DialPlanAid	<dialPlanName>[-<nai>[-<digits> [-<minDgts>]]]
DialPlanTrigAid	<dialPlanName>-<ainTrigList>
DigitModDnAid	<dmLbl>[-<dnType>[-<nai>[-<digits> [-<minDgts]]]]
DigitModGenAid	<dmLbl>[-<genType>[-<nmbrType> [-<digits]]]
DigitModParamAid	<dmLbl>[-<primKey>[-<Value]]
DigitModTnsAid	<dmLbl>[-<TNS>[-<carrier> [-<callTypeCode>[-<prtcl]]]]
ENET	IOM-{8,10}-ENET-{1-4}
FAN	FAN
IfGrpDs1Id	{1-32767}-{1-28}
IfGrpNum	{1-32767}
IomAid	IOM-{1-17}
IOMODULE	IOM-{1-17}
IOMorENET	IOM-{8,10} IOM-{8,10}-ENET-{1-4}
IOMorOC	IOM-{8,10} IOM-{8,10}-OC12-{1-4} IOM-{8,10}-OC3-{1-4}
IOMorPORT	IOM-{1-17} IOM-{1-17}-PORT-{1-28} IOM-{1-17}-SST1-{1-8}-PORT-{1-28} IOM-{1-17}-T3-{1-8}-PORT-{1-28}
IOMorSP	IOM-{1-17} SP-{A-B}

IOMorSPorSF	IOM-{1-17} SF-{A-B} SP-{A-B}
IOMorSTS1	IOM-{1-17} IOM-{1-17}-STS1-{1-8}
IOMorT3	IOM-{1-17} IOM-{1-17}-T3-{1-8}
IOMorT3orPORT	IOM-{1-17} IOM-{1-17}-PORT-{1-28} IOM-{1-17}-STS1-{1-8} IOM-{1-17}-STS1-{1-8}-PORT-{1-28} IOM-{1-17}-T3-{1-8} IOM-{1-17}-T3-{1-8}-PORT-{1-28}
IOMorT3orPORTorBITS	IOM-{1-17} IOM-{1-17}-PORT-{1-28} IOM-{1-17}-STS1-{1-8} IOM-{1-17}-STS1-{1-8}-PORT-{1-28} IOM-{1-17}-T3-{1-8} IOM-{1-17}-T3-{1-8}-PORT-{1-28} TMG-{A,B}
IsdnBcStaChannelStateAid	{1-32767}-{1-32767}-{1-24}
IsdnChanAid	{1-32767}-{1-32767}-{1-24}
IsdnIfNum	{1-32767}
IsdnLink	{1-32767}-{1-32767}
IsdnRtAid	<RTNAME>-{0-32767}
lapdAid	GR303EOC-{1-32767}-{1-28} GR303TMC-{1-32767}-{1-32767} ISDN-{1-32767}-{1-32767} IUA-IOM-{1-17}-PORT-{1-28} IUA-IOM-{1-17}-STS1-{1-8}-PORT -{1-28} IUA-IOM-{1-17}-T3-{1-8}-PORT -{1-28}
LinkId	{1-32767}-{1-32767}
ListCodeAid	<LISTID>-{INDEX}
LsetAid	{1-20}
MgcpLineAid	<gatewayId>-<lineId>
Mtp2PrflId	{1-40}
Mtp3PrflId	{1-20}
NNPAAid	{1-99999}-{200-999}

NpaNxx	{200-999}-{200-999}
OC	IOM-{8,10}-OC12-{1-4} IOM-{8,10}-OC3-{1-4}
PcAid	{0-255}-{0-255}-{0-255}
PcPrflId	{1-128}
PORT	IOM-{1-17}-PORT-{1-28} IOM-{1-17}-STS1-{1-8}-PORT-{1-28} IOM-{1-17}-T3-{1-8}-PORT-{1-28}
PORTorBITS	IOM-{1-17}-PORT-{1-28} IOM-{1-17}-STS1-{1-8}-PORT-{1-28} IOM-{1-17}-T3-{1-8}-PORT-{1-28} TMG-{A,B}
PvcId	{1-4}
PvcPrflId	{2-8}
RelCauseAid	{0-32767}-PROTOCOLTYPE-CODINGTYPE
RouteAddrAid	<RTADDR>-{ROUTEIDENT}
RouteN11Aid	<N11STRING>-<DSTRING>
RouteSchedAid	<SCHEDNAMESTRING>-<PRFLNAMESTRING>
RouteSs7Aid	<PCAID>-<LSETAID>
RtId	<rtList>-<index>
RtIntfcAid	<RTNAME>-{0-32767}
RtpTermId	Alphanumeric characters in the form: Chassis/RTP/IOM{1-17}/ P{1025-65535}
SccpSsnAid	<PCAID>-{1-255}
ScpAnncMap	<ANNCMAPLBL>-{1-65535}
ScreenDigitsAid	<SUBCRIBERID>-<SCREENTYPE>-<SCREENSTRING>
ScreenListAid	{LISTID}-{STARTRANGE}

ServiceId	ACB ACR AIN_TOLLFREE AR AUTHCODE CFBL CFDA CFV CID CIDCW CIS CNAB CNAM CND CNDB COT CRDPCL CWC CWT GMSC_IS41 GMSC_MAP LNP MWC RAF RDAS SC1 SC2 TOLLFREE TWC VMS
SlhrId	{0-31}
SnmpAccessAid	<GROUPNAME>-{SECLEVEL}-{SECMODEL}
SnmpViewAid	<VIEWNAME>-<VIEWTREE>
SP	SP-{A-B}
SPorIOM	IOM-{8,10} SP-{A-B}
Ss7LnkAid	{1-40}
Ss7PcAid	{0-255}-{0-255}-{0-255}
Ss7TrkAid	{1-9999}-{0-16382}
STS1	IOM-{1-17}-STS1-{1-8}
SubIfAid	{IFNUM}-{SUBIF}

SubSpeedAid	<SUBCRIBERID>-{2-99}
T0	IOM-{1-17}-PORT-{1-28}-T0-{1-24} IOM-{1-17}-STS1-{1-8}-PORT-{1-28}-T0-{1-24} IOM-{1-17}-T3-{1-8}-PORT-{1-28}-T0-{1-24}
T3	IOM-{1-17}-T3-{1-8}
T3orPORT	IOM-{1-17}-STS1-{1-8} IOM-{1-17}-STS1-{1-8}-PORT-{1-28}-T0-{1-24} IOM-{1-17}-T3-{1-8} IOM-{1-17}-T3-{1-8}-PORT-{1-28}-T0-{1-24}
T3PORT	IOM-{1-17}-STS1-{1-8}-PORT-{1-28}-T0-{1-24} IOM-{1-17}-T3-{1-8}-PORT-{1-28}-T0-{1-24}
TdmTermId	Alphanumeric characters in the form: Chassis/TDM/IOM{1-17}/ T{1-8}/ P{1-28}/C{1-24}
TestPortNum	TP-{1-24}
TgnAid	{1-9999}
TgnSipId	{1-9999}-{1-16}
TransSchedAid	<transSched>-<prflName>
TrigEscListAID	<trigEscList>-<startRange>
TriggerAid	<ainTrigListName>-<index>
TrkAid	{1-9999}-{1-32767}
VMS	<msrId>-<smdiLnkId>
VoipPrfl	{1-65535}
VpId	IOM-{1-17}-VP-{1-8}
VpsId	IOM-{1-17}-VCC-{0-799}

2. AlmqSessionId

Identifies the AID as an alarm queuing session in the list of active alarm queuing sessions.

Pattern	Description
Up to eight hexadecimal characters	Represents an IP address of a machine connecting to the alarm queue port

3. AltDnAid

Identifies the AID with a variable string indicating a subscriber and an alternate directory number associated with the subscriber.

Pattern	Description
<SUBSCRIBERID>-<SUBSCRIBERID>	Represents a subscriber and an alternate directory number with strings of exactly 10 digits

4. AnncId

Identifies the AID as an audio announcement residing on an external announcement server.

Pattern	Description
{32767-65535}	Represents an external audio announcement

5. AnnouncementId

Identifies the AID as an audio announcement.

Pattern	Description
{1-32766}	Represents an audio announcement

6. AudioMsgAid

Identifies the AID as an audio message. The first part of the AID is an integer representing the message identifier; the second part is an optional string representing the language variant of the message.

Pattern	Description
{1-65535}-{VARIANT}	Represents an audio message

7. BiccTrkAid

Identifies the AID as a unique trunk (or range of trunks) associated with a trunk group number. The first number in the range identifies the trunk group number and the second number identifies the trunk(s).

Pattern	Description
{1-9999}-{0-16382}	Represents a CIC

8. BlockListAid

Identifies the AID as a list containing strings of digits that a subscriber is blocked from calling.

Pattern	Description
<BLOCKNAME> -<SCREENTYPE> [-<SCREENSTRING>]	BLOCKNAME identifies the name of the list with a string of up to 21 characters representing the subscriber; *SCREENTYPE* identifies the type of screened number, with values of: • CUTTHRU = Casual calling carrier (any four-digit string specifying the cic on which calls are blocked – no default) • INTNATIONAL = Direct-dial international (any digit string up to 21 digits, but without 011 prefix) • NATIONAL = Any number in the NANP (*1* or any *NPA* or any *NPA-NXX* or any complete *NPA-NXX-xxxx* or any digit string up to 21 digits) • OPERATOR = Local or long-distance operator request (*0* or *00*)

	• OPINTRN = Operator-assisted international (“DEFAULT”– blocks all calls prefixed by *01*) • OPNAT = Operator-assisted national (*0* and *411*) SCREENSTRING identifies the digits to block with a string of up to 21 digits (shown parenthetically for each value of *SCREENTYPE*), or “DEFAULT”.

9. CALLINGAREAAID

Identifies the AID as an association between a local calling area and a rate center. The first 30-character string in the range identifies the name of the calling area, and the second 30-character string identifies the name of the rate center.

Pattern	Description
CALLINGAREASTRING-CENTERNAMESTRING	Represents the name of a calling area and the name of a rate center with strings of 30 characters each

10. CaptAid

Identifies the AID as (a) capture session access line(s).

Pattern	Description
BICC	All BICC trunks
CAS-IOM-{1-17}-PORT-{1-28}	All CAS channels on a specific T1 port on a DS1 IOM
CAS-IOM-{1-17}-PORT-{1-28}-T0-{1-24}	A CAS channel on a specific T1 port on a DS1 IOM
CAS-IOM-{1-17}-T3-{1-8}-PORT-{1-28}	All CAS channels on a specific T1 port on a DS3 IOM
CAS-IOM-{1-17}-T3-{1-8}-PORT-{1-28}-T0-{1-24}	A CAS channel on a specific T1 port on a DS3 IOM
ISDNIF-{1-32767}	An ISDN interface
LSET-{1-20}	An SS7 link set

11. CaptSysId

Identifies the AID as a server that can receive protocol capture session records. The range is restricted to {1} as there currently can be only one such server.

Pattern	Description
{1}	Represents a protocol capture session server

12. CarrierCode

Identifies the AID as a specific carrier.

Pattern	Description
{0-9999}	Represents a specific carrier

13. CasIfId

Identifies the AID as a Channel-Associated Signaling (CAS) interface.

Pattern	Description
{1-2147483645}	Represents a CAS interface

14. CasPrflId

Identifies the AID as a Channel-Associated Signaling (CAS) profile.

Pattern	Description
{1-128}	Represents a CAS profile

15. CcAid

Identifies the AID as a country code.

Pattern	Description
{1-99999}	Represents a country code

16. CccListAid

Identifies the AID as a call content channel (CCC) associated with a specific list of call content channels. The first part of the AID is the numerical identifier for the CCC list and the second part is the CCC.

Pattern	Description
{1-32767}-{up to 21 digits}	Represents a CCC associated with a specific list of call content channels

17. CcNpa

Identifies the AID as an NPA in a country. A null value for the second number in the range is equivalent to all NPAs in the system.

Pattern	Description
{1-99999}-{200-999}	Represents a country code and an NPA

18. CcNpaNxx

Identifies the AID as a specific exchange (NXX) in an NPA in a country. A null value for the third number in the range is equivalent to all exchanges in the system.

Pattern	Description
{1-99999}-{200-999}-{200-999}	Represents a country code, an NPA, and an NXX

19. CcNpaNxxStart

Identifies the AID as the starting number for a block of pooled numbers. The first set of numbers in the range represents the country code, the second set represents the area code, the third represents the local exchange, and the fourth (which must be exactly four digits) represents the starting number for the block.

Pattern	Description
{1-99999}-{1-99999}-{1-99999}-{0-9999}	Represents a country code, an NPA, an NXX, and the starting number for a block of pooled numbers

20. cgpnRouteAid

Identifies the AID as a route address. The pattern is a combination of the route address (the telephone number of a calling party associated with a route name) and the nature of address indicator for the route (defined by the parameter *ROUTEIDENT*).

Pattern	Description
<RTADDR>-{ROUTEIDENT}	*RTADDR* is a string of 1-21 digits. *ROUTEIDENT* can be: • INTNATNUM = international number • NATNUM = national significant number • SUBSNUM = subscriber number • UNKNOWN = Nature of Address unknown

21. ChanIdGrp

Identifies the AID as a DS0 channel on a port within a GR303 interface group. The pattern is a combination of the interface group number, and the physical channel on a port of the I/O module belonging to the GR303 interface group. A null value for the second part of the AID is equivalent to "ALL"; that is, by leaving the field blank, the state will be changed (in ED) or returned (in RTRV) for all configured channels for the specified GR303 interface group.

Pattern	Description
IfGrpNum[-T0]	IfGrpNum = {1-32767} T0 = IOM-{1-17}-STS1-{1-8}-PORT-{1-28}-T0-{1-24} IOM-{1-17}-T3-{1-8}-PORT-{1-28}-T0-{1-24}

22. CicPrflId

Identifies the AID as a CIC profile.

Pattern	Description
{1-128}	Represents a CIC profile

23. cl4SubId

Identifies the AID as the association between a subscriber and a carrier or a call type.

Pattern	Description
<subscriberId> -<callType> or <subscriberId> -<carrier>	*subscriberId* identifies the subscriber with a string of exactly 10 digits *callType* identifies the call type for which the subscriber assignment parameters apply, with values of: DEFAULT = all call types (default value) INTERLATA INTERNATIONAL INTRALATA *carrier* identifies the carrier for which the subscriber assignment parameters apply as a string of 1-4 digits with a default of "DEFAULT"

24. COM

Identifies the AID as the switch as a whole.

Pattern	Description
COM	Represents the switch as a whole

25. Cpc

Identifies the AID as a calling party category (one of the IAM parameters).

Pattern	Description
{0-255}	Represents a calling party category

26. CrvAidGrp

Identifies the AID as a GR303 call reference value. The pattern is a combination of the interface group number, the call reference value, and the subscriber interface number.

Pattern	Description
<ifGrpNum>- <crv>- <subIfId>	ifGrpNum = {1-32767} crv = {1-2048} subIfId = {1-32767}access to the group

27. DgtModPrflAid

Identifies the AID as a profile that identifies how to modify the digits distinguishing routed calls.

Pattern	Description
<dgtModName> [-<dgtString> [-<key> [-<nai> [-<minLen>]]]]	*dgtModName* identifies the name of the profile with a string of up to eight alphanumeric characters *dgtString* (optional only in RTRV) identifies the digits (distinguishing the routed calls) to modify with a string of 1-21 digits (default = "DEFAULT") *key* identifies the digits (distinguishing the routed calls) to modify with a string of 1-21 digits (default = "DEFAULT") *nai* identifies the nature of address indicator applicable to the specified digit string, with a default of "UNKNOWN" and values of: • INTNATNUM = international number • NATNUM = national significant number • NATOPREQ = national (long-distance) operator request • NONUMCUTTHRU = no number provided, cut through to carrier • NONUMOPREQ = no number provided, operator request • SUBOPREQ = subscriber (local) operator request • SUBSNUM = subscriber number • UNKNOWN = unknown

	minLen identifies the minimum length of the specified digit string as an integer from 7 to 21 with a default of 7

28. DgtScrnAid

Identifies the AID as a digit screening method.

Pattern	Description
<dgtScrnLbl> [-<primKey> [-<primKeyValue> [-<secKeyValue> [-<terKeyValue]]]]	*dgtScrnLbl* identifies the name of the applicable screening table with a string of 1-10 alphanumeric characters; *primKey* (optional only in RTRV) identifies the primary key applicable to the specified screening table, with values of: • BGN = Bearer Group Number (interface type) • CALLTYPE = Type of call (Class 5) • CDPN = Called party number • CGPN = Calling party number • CHRGN = Charge number • CIP = Carrier Information Parameter (for ISUP only) • CPC = Calling Party Category • CSI = Carrier Selection Information • GAP = Generic Address Parameter • GENDGTS = Generic Digits • JIP = Jurisdiction Information Parameter (NPANXX) • LATA = Local Access & Transport Area • OLI = Originating Line Information • SUBSTATUS = Subscriber status (valid only when the value “SUB” is the first listed for the parameter *actnInfoAnlz* in TRANS-PLAN) • TNS = Transit Network Selection *primKeyValue* identifies the primary value applicable to the specified primary key parameter, with values of: BGN: • CASIF • DEFAULT • GR303

	• ISDNIF • MGCP • TGN CALLTYPE: • CUTTHRU • DEFAULT • DIR_ASSISTANCE • EMERGENCY • INTERLATA • INTERLATAOPREQ • INTNATNUM • INTNATOPREQ • INTRALATA • LOCALNUMBER • LOCALOPREQ • N11 • NATNUM • NONUMOPREQ • NOTPRSNT • TOLLFREE CDPN: • ABBREVPVT = abbreviated private • DEFAULT = matches all numbers • INTNATNUM = international number • INTNATOPREQ = international operator request • NATNUM = national significant number • NATOPREQ = national (long-distance) operator request • NONUMCUTTHRU = no number provided, cut through to carrier • NONUMOPREQ = no number provided, operator request • NOTPRSNT = matches calls without a CDPN • SUBOPREQ = subscriber (local) operator request • SUBSNUM = subscriber number • TESTLINE = test line test code • UNKNOWN = unknown (default value) CGPN: • ABBREVPVT = abbreviated private • DEFAULT = matches all numbers • NOTPRSNT = matches calls without a

	CGPN • NUNIINTNATNUM = non-unique international number • NUNINATNUM = non-unique national number • NUNISUBSNUM = non-unique subscriber number • TESTLINE = test line test code • UNIINTNATNUM = unique international number • UNINATNUM = unique national number • UNISUBSNUM = unique subscriber number CHRGN: • CDPNATNUM = ANI of the called party; national number • CDPSUBSNUM = ANI of the called party; subscriber number • CDPUNAVAIL = ANI of the called party; no number present • CGPNATNUM = ANI of the calling party; national number • CGPSUBSNUM = ANI of the calling party; subscriber number • DEFAULT = matches all numbers • NOTPRSNT = matches calls without a CHRGN • UNAVAIL = ANI not available or not provided CIP: 0-9999, DEFAULT, NOTPRSNT CPC: 00-FF (hexadecimal) , DEFAULT, NOTPRSNT CSI: • DEFAULT = matches all numbers • NOTPRESUB = not presubscribed and input by calling party • NOTPRSNT = matches calls without CSI • PRESUBDIAL = presubscribed and input by calling party • PRESUBNOTDIAL = presubscribed and not input by calling party • PRESUBUNKNOWN = presubscribed, input by calling party undetermined • UNKNOWN = no indication GAP: 0-255 (mandatory)

	GENDGTS: 0-31 (mandatory) JIP: 200000-999999, DEFAULT, NOTPRSNT LATA: 200-99999, DEFAULT, NOTPRSNT OLI: 00-FF (hexadecimal), DEFAULT, NOTPRSNT SUBSTATUS: • ACTIVE = In Service (subscriber is present in the CL4SUB table and active) • DEFAULT = matches all numbers • INACTIVE = Out Of Service (subscriber is present in the CL4SUB table and inactive) • NOTINDB = Not in database (subscriber is not in the CL4SUB table) • NOTPRSNT = matches calls without • SUBSTATUS TNS: 0-9999 (the carrier ID), DEFAULT, NOTPRSNT *secKeyValue* identifies the secondary value applicable to the specified primary key parameter, with values of: • BGN: 1-31 digits, DEFAULT • CALLTYPE: No secondary value • CDPN: 1-31 digits, DEFAULT (set *secKeyValue* to DEFAULT if *primKeyValue* is DEFAULT or NOTPRSNT) • CGPN: 1-31 digits, DEFAULT (set *secKeyValue* to DEFAULT if *primKeyValue* is DEFAULT or NOTPRSNT) • CHRGN: 1-31 digits, DEFAULT (set *secKeyValue* to DEFAULT if *primKeyValue* is DEFAULT or NOTPRSNT) • CIP: No secondary value • CPC: No secondary value • CSI: No secondary value • GAP: 1-31 digits, DEFAULT, NOTPRSNT • GENDGTS: 1-31 digits, DEFAULT, NOTPRSNT • JIP: No secondary value

	• LATA: No secondary value • OLI: No secondary value • SUBSTATUS: No secondary value • TNS: 0-199 (the CAS 0ZZ/1NX code or the ISUP circuit code), DEFAULT (set *secKeyValue* to DEFAULT if *primKeyValue* is DEFAULT or NOTPRSNT) *terKeyValue* identifies the tertiary value (representing the protocol type) applicable only when the value of *primKey* is TNS, with values of: • CAS • ISUP (default – set *terKeyValue* to ISUP if *secKeyValue* is DEFAULT)

29. DialPlanAid

Identifies the AID as a custom dial plan.

Pattern	Description
<dialPlanName> [-<nai> [-<digits> [-<minDgts>]]]	*dialPlanName* identifies the name of the custom dial plan with a string of up to 21 alphanumeric characters *nai* identifies the nature of address indicator applicable to the specified custom dial plan, with values of: • ABBREVPVT = abbreviated number in private dial plan • DEFAULT = any nature of address indicator • INTNATNUM = international number • INTNATOPREQ = international number, operator request • NATNUM = national significant number • NATOPREQ = national (long-distance) operator request • NONUMCUTTHRU = no number provided, cut through to carrier • NONUMOPREQ = no number provided, operator request • SUBOPREQ = subscriber (local) operator request • SUBSNUM = subscriber number

	• UNKNOWN = unknown (default value) *digits* identifies the leading digits of the number to be matched with a string of 1-31 digits (default = “DEFAULT”); *minDgts* identifies the minimum length of the specified digit string as an integer from four to six with a default of four.

30. DialPlanTrigAid

Identifies the AID as the association of a custom dial plan with an AIN trigger list.

Pattern	Description
<dialPlanName> -<ainTrigList>	*dialPlanName* identifies the name of the custom dial plan with a string of up to 21 alphanumeric characters *ainTrigList* identifies the AIN Trigger List applicable to the specified custom dial plan with a string of up to 20 characters. “CUSTOM_DIALPLAN” is the only trigger type allowed for entries in the specified AIN Trigger List.

31. DigitModDnAid

Identifies the AID as a digit modification object keyed for a DN.

Pattern	Description
<dmLbl> [-<dnType> [-<nai> [-<digits> [-<minDgts]]]]	*dmLbl* identifies the name of the applicable digit modification table with a string of 1-10 alphanumeric characters *dnType* (optional only in RTRV) identifies the primary key as the type of DN applicable to the specified digit modification table, with values of: • CDPN = Called party number • CGPN = Calling party number • CHRGN = Charge number *nai* identifies the nature of address indicator applicable to the specified type of DN, with a default of “DEFAULT” and values of:

	• ABBREVPVT = abbreviated private (only for CDPN and CGPN) • CDPNATNUM = ANI of the called party; national number (only for CHRGN) • CDPSUBSNUM = ANI of the called party; subscriber number (only for CHRGN) • CDPUNAVAIL = ANI of the called party; no number present (only for CHRGN) • CGPNATNUM = ANI of the calling party; national number (only for CHRGN) • CGPSUBSNUM = ANI of the calling party; subscriber number (only for CHRGN) • DEFAULT = matches all numbers • INTNATNUM = international number (only for CDPN) • INTNATOPREQ = international operator request (only for CDPN) • NATNUM = national significant number (only for CDPN) • NATOPREQ = national (long-distance) operator request (only for CDPN) • NONUMCUTTHRU = no number provided, cut through to carrier (only for CDPN) • NONUMOPREQ = no number provided, operator request (only for CDPN) • NOTPRSNT = matches calls without a CGPN, CDPN, or CHRGN • NUNIINTNATNUM = non-unique international number (only for CGPN) • NUNINATNUM = non-unique national number (only for CGPN) • NUNISUBSNUM = non-unique subscriber number (only for CGPN) • SUBOPREQ = subscriber (local) operator request (only for CDPN) • SUBSNUM = subscriber number (only for CDPN) • TESTLINE = test line test code (only for CGPN and CDPN) • UNAVAIL = ANI not available or not provided (only for CHRGN) • UNIINTNATNUM = unique international number (only for CGPN) • UNINATNUM = unique national number (only for CGPN)

	• UNISUBSNUM = unique subscriber number (only for CGPN) • UNKNOWN = unknown (only for CDPN); *digits* identifies the leading digits of the number to be matched as a string of up to 31 digits with a default of "DEFAULT" *minDgts* identifies the minimum allowable length of the incoming addressing digits as an integer from 0-30 with a default of 0.

32. DigitModGenAid

Identifies the AID as a digit modification object keyed for generic digits or generic address parameters.

Pattern	Description
<dmLbl> [-<genType> [-<nmbrType> [-<digits]]]	*dmLbl* identifies the name of the applicable digit modification table with a string of 1-10 alphanumeric characters *genType* (optional only in RTRV) identifies the primary key that applies to the specified digit modification table as either a generic address parameter or generic digits or a (user-defined) generic parameter, with values of: • GAP = Generic Address Parameter • GENDGTS = generic digits • GP = generic parameter *nmbrType* (optional only in RTRV) identifies the numeric value representing the type of generic digits or generic address parameters, with values of: • 0-255 for GAP • 0-31 for GENDGTS • 0-255 for GP *digits* identifies the leading digits of the number to be matched as a string of up to 31 digits with a default of "DEFAULT". When the value of *genType-nmbrType* is "GENDGTS-9", the value of *digits* is a string of either three or eight digits. When the value is three digits, the range is {000-127}. When the value is eight digits, the range for the first three digits is {000-127} and the range for the last five

	digits is {00000-16383}. When the value of *genType-nmbrType* is "GP-195", the value of *digits* is a string of eight digits.

33. DigitModParamAid

Identifies the AID as a digit screening method.

Pattern	Description
<dmLbl> [-<primKey> [-<Value]]	*dmLbl* identifies the name of the applicable digit modification table with a string of 1-10 alphanumeric characters *primKey* (optional only in RTRV) identifies the primary key applicable to the specified screening table as a type of call parameter, with values of: • CALLTYPE = Type of call (Class 5) • CIP = Carrier Information Parameter (for ISUP only) • CPC = Calling Party Category • CSI = Carrier Selection Information • JIP = Jurisdiction Information Parameter (NPANXX) • LATA = Local Access & Transport Area • OLI = Originating Line Information *Value* identifies the value applicable to the specified parameter, with values of: CALLTYPE: • CUTTHRU • DEFAULT • DIR_ASSISTANCE • EMERGENCY • INTERLATA • INTERLATAOPREQ • INTNATNUM • INTNATOPREQ • INTRALATA • LOCALNUMBER • LOCALOPREQ • N11 • NATNUM • NONUMOPREQ • NOTPRSNT

	• TOLLFREE CIP: 0-9999, DEFAULT, NOTPRSNT CPC: 00-FF (hexadecimal) , DEFAULT, NOTPRSNT CSI: • DEFAULT = matches all numbers • NOTPRESUB = not presubscribed and input by calling party • NOTPRSNT = matches calls without CSI • PRESUBDIAL = presubscribed and input by calling party • PRESUBNOTDIAL = presubscribed and not input by calling party • PRESUBUNKNOWN = presubscribed, input by calling party undetermined • UNKNOWN = no indication JIP: 200000-999999, DEFAULT, NOTPRSNT LATA: 200-99999, DEFAULT, NOTPRSNT OLI: 00-FF (hexadecimal), DEFAULT, NOTPRSNT

34. DigitModTnsAid

Identifies the AID as a digit modification object keyed for the transit network selection (TNS) parameter, which is the circuit code for ISUP calls, or the Carrier or 0ZZ codes for CAS Feature group D.

Pattern	Description
<dmLbl> [-<TNS> [-<carrier> [-<callTypeCode> [-<prtcl]]]]	*dmLbl* identifies the name of the applicable digit modification table with a string of 1-10 alphanumeric characters *TNS* (optional only in RTRV) identifies the primary key that applies to the specified digit modification table with “TNS” as the sole value *carrier* identifies the carrier code as a string of 1-4 digits, “NOTPRSNT”, or the default value “DEFAULT” *callTypeCode* identifies the ISUP circuit code or the CAS 0ZZ or 1NX codes as a string of 1-3 digits with a default of “DEFAULT” (set *callTypeCode* to DEFAULT if *carrier* is

	DEFAULT or NOTPRSNT) *prtcl* identifies the incoming trunk group protocol with values of CAS or ISUP (the default value – set *prtcl* to ISUP if *callTypeCode* is DEFAULT)

35. ENET

Identifies the AID as an Ethernet port on an IOM in the switch.

Pattern	Description
IOM-{8,10}-ENET-{1-4}	Represents an Ethernet port on an IOM

36. FAN

Identifies the AID as the fan assembly in the switch.

Pattern	Description
FAN	Represents the fan assembly

37. IfGrpDs1Id

Identifies the AID as an association of a DS1 port with a GR303 interface group. The first part of the AID is the interface group number and the second part is the DS1 port number.

Pattern	Description
{1-32767}-{1-28}	Represents an association of a DS1 port with a GR303 interface group

38. IfGrpNum

Identifies the AID as a GR303 interface group.

Pattern	Description
{1-32767}	Represents a GR303 interface group

39. IomAid

Identifies the AID as an IOM slot that contains a Voice Processor Server module.

Pattern	Description
IOM-{1-17}	Represents an IOM slot that contains a Voice Processor Server module

40. IOMODULE

Identifies the AID as an I/O module (IOM) by slot number.

Pattern	Description
IOM-{1-17}	Represents an IOM slot number

41. IOMorENET

Identifies the AID either as an IOM (by slot number), or as an Ethernet port on an IOM (by slot number and port number).

Pattern	Description
IOM-{8,10}	Represents an IOM slot number
IOM-{8,10}-ENET-{1-4}	Represents an Ethernet port on an IOM

42. IOMorOC

Identifies the AID either as an IOM (by slot number), or as an OC port on an IOM (by slot number and port number).

Pattern	Description
IOM-{8,10}	Represents an IOM slot number
IOM-{8,10}-OC12-{1-4}	Represents an OC12 port on an IOM
IOM-{8,10}-OC3-{1-4}	Represents an OC3 port on an IOM

43. IOMorSP

Identifies the AID either as an IOM (by slot number) or as a System Processor (SP) module.

Pattern	Description
IOM-{1-17}	An IOM slot number
SP-{A-B}	SP slot number A or B (System Processor functionality)

44. IOMorSPorSF

Identifies the AID either as an IOM (by slot number), as an SW/FAB A or B module, or as a SP A or B module.

Pattern	Description
IOM-{1-17}	An IOM slot number
SF-{A-B}	SW/FAB slot number A or B
SP-{A-B}	SP slot number A or B (System Processor functionality)

45. IOMorSTS1

Identifies the AID either as an STS1 IOM (by slot number), or as an STS1 port on a DS3 IOM (by slot number and port number).

Pattern	Description
IOM-{1-17}	A DS3 IOM slot number
IOM-{1-17}- STS1-{1-8}	An STS1 port on a DS3 IOM

46. IOMorT3

Identifies the AID either as a DS3 IOM (by slot number), or as a T3 port on a DS3 IOM (by slot number and port number).

Pattern	Description
IOM-{1-17}	A DS3 IOM slot number
IOM-{1-17}-T3-{1-8}	A T3 port on a DS3 IOM

47. IOMorT3orPORT

Identifies the AID either as an IOM (by slot number), or as a port on an IOM (by slot number and port number).

Pattern	Description
IOM-{1-17}	An IOM slot number
IOM-{1-17}-PORT-{1-28}	A T1 port on a DS1 IOM
IOM-{1-17}-STS1-{1-8}	An STS1 port on a DS3 IOM
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}	A T1 port on an STS1 port on a DS3 IOM
IOM-{1-17}-T3-{1-8}	A T3 port on a DS3 IOM
IOM-{1-17}-T3-{1-8}-PORT-{1-28}	A T1 port on a T3 port on a DS3 IOM

48. IOMorT3orPORTorBITS

Identifies the AID either as an IOM (by slot number), a port on an IOM (by slot number and port number), or a timing port in the switch.

Pattern	Description
IOM-{1-17}	An IOM slot number
IOM-{1-17}-PORT-{1-28}	A T1 port on a DS1 IOM
IOM-{1-17}-STS1-{1-8}	An STS1 port on a DS3 IOM
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}	A T1 port on an STS1 port on a DS3 IOM
IOM-{1-17}-T3-{1-8}	A T3 port on a DS3 IOM
IOM-{1-17}-T3-{1-8}-PORT-{1-28}	A T1 port on a T3 port on a DS3 IOM
TMG-{A,B}	The BITS interface on rear Switch Fabric card A or B

49. isdnBcStaChannelStateAid

Identifies the AID as an ISDN B channel in the RTRV-STATUS-IDSNBCHAN command. The first range in the pattern represents the interface, the second range represents the link on the interface, and the third range represents the channel on the link.

Pattern	Description
{1-32767}-{1-32767}-{1-24}	Represents an ISDN B channel

50. IsdnChanAid

Identifies the AID as an ISDN B channel in the ED-STATE-IDSNBCHAN command. The first range in the pattern represents the interface, the second range represents the link on the interface, and the third range represents the channel on the link.

Pattern	Description
{1-32767}-{1-32767}-{1-24}	Represents an ISDN channel

51. IsdnIfNum

Identifies the AID as an ISDN interface.

Pattern	Description
{1-32767}	Represents an ISDN interface

52. IsdnLink

Identifies the AID as an ISDN link. The first number in the range identifies the interface; the second identifies the link.

Pattern	Description
{1-32767}-{1-32767}	Represents an ISDN link on an interface

53. IsdnRtAid

Identifies the AID as an ISDN route.

Pattern	Description
<RTNAME>-{0-32767}	Represents an ISDN route with a variable string, of up to 21 alphanumeric characters, indicating the route name (established in the AID *isdnRtId* in the command ENT-ROUTE-IDSNIF), and an associated priority range. The range establishes the order in which interfaces are to be accessed (with lower numbers indicating higher priority) when there is more than one interface. The value of the priority range is set to zero when there is only one interface.

54. lapdAid

Identifies the AID as an LAPD (Link Access Protocol – D channel) interface and link.

Pattern	Description
GR303EOC-{1-32767}-{1-28}	An Embedded Operations Channel on a GR303 interface
GR303TMC-{1-32767}-{1-32767}	A Timeslot Management Channel on a GR303 interface
ISDN-{1-32767}-{1-32767}	A link on an ISDN interface
IUA-IOM-{1-17}-PORT-{1-28}	A T1 port on a DS1 IOM containing the D-channel for ISDN User Adaptation (IUA) applications
IUA-IOM-{1-17}-STS1-{1-8} -PORT-{1-28}	A T1 port on an STS1 port on a DS3 IOM containing the D-channel for ISDN User (IUA) Adaptation applications
IUA-IOM-{1-17}-T3-{1-8} -PORT-{1-28}	A T1 port on a T3 port on a DS3 IOM containing the D-channel for ISDN User Adaptation (IUA) applications

55. LinkId

Identifies the AID as an ISDN link on an interface.

Pattern	Description
{1-32767}-{1-32767}	Represents an ISDN link with the first number identifying the interface and the second number identifying the link

56. ListCodeAid

Identifies the AID as an authorization code, a PIN code, or an authorization code with an associated PIN code in an authorization list.

Pattern	Description
<LISTID>-{INDEX}	Represents an authorization code, a PIN code, or an authorization code with an associated PIN code in an authorization list, where: *LISTID* identifies the name of the applicable authorization list with a string of up to 20 alphanumeric characters *INDEX* identifies a specific code in the authorization list with an integer of 1-500

57. LsetAid

Identifies the AID as a linkset.

Pattern	Description
{1-20}	Represents an SS7 link set

58. MgcpLineAid

Identifies the AID as a line (i.e., endpoint) in an MGCP gateway. The pattern is a combination of a gateway controlled under the Call Management Server (CMS) and the affected endpoint.

Pattern	Description
<gatewayId>-<lineId>	gatewayId = {1-100000} lineId = {1-65536}

59. Mtp2PrflId

Identifies the AID as an MTP layer 2 profile.

Pattern	Description
{1-40}	Represents an MTP layer 2 profile

60. Mtp3PrflId

Identifies the AID as an MTP layer 3 profile.

Pattern	Description
{1-20}	Represents an MTP layer 3 profile

61. NNPAAid

Identifies the AID as a homed NPA in a country. The first number in the range identifies a country code; the second identifies a homed NPA. A null value for the second number in the range is equivalent to all NPAs in the system.

Pattern	Description
{1-99999}-{200-999}	Represents a country code and an NPA

62. NpaNxx

Identifies the AID as a homed NXX (exchange) in a specific NPA hosted by the switch.

Pattern	Description
{200-999}-{200-999}	Represents the NPA with the first number and the NXX with the second number

63. OC

Identifies the AID as an OC port on an IOM in the switch.

Pattern	Description
IOM-{8,10}-OC12-{1-4}	Represents an OC12 port on an IOM
IOM-{8,10}-OC3-{1-4}	Represents an OC3 port on an IOM

64. PcAid

Identifies the AID as a point code.

Pattern	Description
{0-255}-{0-255}-{0-255}	Represents a point code

65. PcPrflId

Identifies the AID as a point code profile.

Pattern	Description
{1-128}	Represents a point code profile

66. PORT

Identifies the AID as a T1 port on an IOM by slot number and port number.

Pattern	Description
IOM-{1-17}-PORT-{1-28}	A T1 port on a DS1 IOM
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}	A T1 port on an STS1 IOM
IOM-{1-17}-T3-{1-8}-PORT-{1-28}	A T1 port on a DS3 IOM

67. PORTorBITS

Identifies the AID either as a port on an IOM (by slot number and port number), or as the BITS interface on a Switch Fabric rear card.

Pattern	Description
IOM-{1-17}-PORT-{1-28}	A T1 port on a DS1 IOM
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}	A T1 port on an STS1 IOM
IOM-{1-17}-T3-{1-8}-PORT-{1-28}	A T1 port on a DS3 IOM
TMG-{A,B}	The BITS interface on rear Switch Fabric card A or B

68. PvcId

Identifies the AID as a PVC endpoint.

Pattern	Description
{1-4}	Represents a PVC endpoint

69. PvcPrflId

Identifies the AID as a PVC profile. The switch is shipped with Profile #1 already established as a factory default; you cannot delete it.

Pattern	Description
{2-8}	Represents a PVC profile

70. RelCauseAid

Identifies the AID as a release cause associated with a specific protocol and type of coding.

Pattern	Description
{0-32767}-PROTOCOLTYPE-CODINGTYPE	{0-32767} identifies the release cause *PROTOCOLTYPE* = ISDN, ISUP, or CAS *CODINGTYPE* = ANSI or CCITT

71. RouteAddrAid

Identifies the AID as a route address. The pattern is a combination of the route address (a telephone number associated with a route name) and the nature of address indicator (defined by the parameter *ROUTEIDENT*).

Pattern	Description
<RTADDR>-{ROUTEIDENT}	*RTADDR* is a string of 1-21 digits or characters a-e (or the word "DEFAULT" when the route identifier applies to all route addresses). *ROUTEIDENT* can be: • INTNATNUM = international number • NATNUM = national significant

	number • NATOPREQ = national (long-distance) operator request • NONUMCUTTHRU = no number provided, cut through to carrier • NONUMOPREQ = no number provided, operator request • RELINCCITT = Release cause value intended for ISDN with CCITT coding standard • RELINNAT = Release cause value intended for ISDN with National Specific coding standard • RELISCCITTT = Release cause value intended for ISUP with CCITT coding standard • RELISNAT = Release cause value intended for ISUP with National Specific coding standard • SUBOPREQ = subscriber (local) operator request • SUBSNUM = subscriber number • TESTLINE = call is for testing purposes • UNKNOWN = Nature of Address unknown

72. RouteN11Aid

Identifies the AID as an N11 number (such as 411, 911) and an associated calling party number.

Pattern	Description
<N11STRING>-<DNSTRING>	*N11STRING* represents an N11 number with a digit between 2 and 9 followed by “11” *DNSTRING* represents the associated calling party number with either a number from one to ten digits or the word “DEFAULT”

73. RouteSchedAid

Identifies the AID as the name of the route schedule, and the name of the schedule profile applied to it.

Pattern	Description
<SCHEDNAMESTRING>-<PRFLNAMESTRING>	*SCHEDNAMESTRING* = up to 20 alphanumeric characters *PRFLNAMESTRING* = up to 20 alphanumeric characters, including "DEFAULT" (which must be entered prior to any user-defined schedule profile names).

74. RouteSs7Aid

Identifies the AID as an SS7 Route. The pattern is a combination of the adjacent destination point code and the link set connecting to it.

Pattern	Description
<PCAID>-<LSETAID>	Represents the destination point code (with pattern {0-255}-{0-255}-{0-255}) and the link set connecting to it (with pattern {1-20})

75. RtId

Identifies the AID as a route with a string of up to 20 characters indicating the name of a route list in which the route is listed, and an associated index.

Pattern	Description
<rtList>-<index>	*rtList* identifies the name of the applicable route list with a string of 1-20 characters *index* identifies the particular route in the applicable route list as an integer between zero and 32767.

76. RtIntfcAid

Identifies the AID as a route. The pattern is a combination of the route name (up to 20 characters) and an associated priority. The priority establishes the order in which interfaces are accessed (with lower numbers indicating higher priority) when there is more than one interface. The value of the priority range is set to zero when there is only one interface.

Pattern	Description
<RTNAME>-{0-32767}	Represents an SS7 route interface as the route name with an associated priority

77. RtpTermId

Identifies the AID as a packet termination on a MEGACO call.

Pattern	Description
Alphanumeric characters in the form: Chassis/RTP/IOM{1-17}/ P{1025-65535}	Represents a packet termination as a combination of the chassis name, RTP termination type, IOM, and numeric ID for a specific VoIP resource (port)

78. SccpSsnAid

Identifies the AID as a combination of the remote point code (with pattern {0-255}-{0-255}-{0-255}) that receives a query and the subsystem number of the providing service.

Pattern	Description
<PCAID>-{1-255}	Represents a remote point code and a subsystem number

79. ScpAnncMap

Identifies the AID as an announcement specified by an SCP. The first part of the AID is a string of up to 20 characters that labels the announcement mapping; the second part is an integer identifying the announcement specified by the SCP.

Pattern	Description
<ANNCMAPLBL>-{1-65535}	Represents an announcement specified by an SCP

80. ScreenDigitsAid

Identifies the AID with a variable string indicating the subscriber, the type of screened number, and the string of blocked digits.

Pattern	Description
<SUBCRIBERID>- <SCREENTYPE>- <SCREENSTRING>	SUBCRIBERID identifies the subscriber with a string of exactly 10 digits SCREENTYPE identifies the type of screened number and can be: • CUTTHRU = Casual calling carrier (*101xxxx*) • INTNATIONAL = Direct-dial international (*011*) • NATIONAL = Any number in the NANP (*1* or any *NPA* or any *NPA-NXX* or any complete *NPA-NXX-xxxx*) • OPERATOR = Local or long-distance operator request (*0* or *00*) • OPINTRN = Operator-assisted international (*01*) • OPNAT = Operator-assisted long-distance (*0*) • SUBSNUM = N11 calls (*x11*, except 911) SCREENSTRING identifies the digits to block with a string of up to 21 digits (shown parenthetically for each value of *SCREENTYPE*).

81. ScreenListAid

Identifies the AID as a list of calling or called party numbers associated with an interface. The first number in the range identifies the list, and the second identifies the first subscriber number on the list by NPA, NXX, and XXXX.

Pattern	Description
{LISTID}-{STARTRANGE}	Identifies a list with a number in the range {1-32767} and the first subscriber number on the list by NPA, NXX, and XXXX with exactly 10 digits.

82. ServiceId

Identifies the AID as a type of IN service.

Pattern	Description
<ServiceId>	*ServiceId* represents a type of IN service – services applicable to specific releases have those releases shown parenthetically after the value. Parentheses also enclose standard (factory default) activation and deactivation codes. Values can be: • ACB = Automatic Call Back (Activation Code = 66, Deactivation Code = 86) • ACR = Anonymous Call Rejection (Activation Code = 77, Deactivation Code = 87) • AIN_TOLLFREE = Advanced Intelligent Network tollfree – tollfree calls resolved in the INAP layer of SS7 (Activation Code = NULL, Deactivation Code = NULL) • AR = Automatic Recall (Activation Code = 69, Deactivation Code = 89) • AUTHCODE = Authorization Code required for outgoing calls (Activation Code = NULL, Deactivation Code = NULL) • CFBL = Call Forwarding on Busy Line (Activation Code = NULL, Deactivation Code = NULL) • CFDA = Call Forwarding on No Answer (Activation Code = NULL, Deactivation Code = NULL) • CFV = Call Forwarding Variable (Activation Code = 72, Deactivation Code = 73) • CID = Calling Identity Delivery (Activation Code =

	61, Deactivation Code = NULL) • CIDCW = Call ID on Call Waiting (Activation Code = NULL, Deactivation Code = NULL) • CIS = Calling Identity Suppression (Activation Code = NULL, Deactivation Code = NULL) • CNAB = Calling Name delivery Blocking (Activation Code = NULL, Deactivation Code = NULL) • CNAM = Caller Name display (Caller ID) (Activation Code = NULL, Deactivation Code = NULL) • CND = Calling Number Delivery (Activation Code = NULL, Deactivation Code = NULL) • CNDB = Calling Number Delivery Blocking (Activation Code = 67, Deactivation Code = NULL) • COT = Customer Originated Trace (Activation Code = 57, Deactivation Code = NULL) • CRDPCL = Code Restriction/Diversion Prohibited Code List – block originating calls to specified screen digits (Activation Code = NULL, Deactivation Code = NULL) • CWC = Cancel Call Waiting (Activation Code = 70, Deactivation Code = NULL) • CWT = Call Waiting (Activation Code = NULL, Deactivation Code = NULL) • GMSC_IS41 (3.8.2 & 3.8.3) = Gateway MSC, ANSI IS41 based (Activation Code = NULL, Deactivation Code = NULL) • GMSC_MAP (3.8.2 & 3.8.3) = Gateway MSC, GSM MAP based (Activation Code = NULL, Deactivation Code = NULL) • LNP = Local Number Portability • MWC = Multi-Way Calling – Call Transfer (Activation Code = NULL, Deactivation Code = NULL) • RAF = Remote Access to Features (Activation Code = NULL, Deactivation Code = NULL) • RDAS = Residence Distinctive Alerting Service (Activation Code = NULL, Deactivation Code = NULL) • SC1 = Speed-dialing with one-digit code (Activation Code = 74, Deactivation Code = NULL) • SC2 = Speed-dialing with two-digit code (Activation Code = 75, Deactivation Code = NULL)

	• TOLLFREE = Tollfree (Activation Code = NULL, Deactivation Code = NULL) • TWC = Three-Way Calling (Activation Code = NULL, Deactivation Code = NULL) • VMS = Voice Mail System (Activation Code = NULL, Deactivation Code = NULL)

83. SlhrId

Identifies the AID as a service logic host route to a Service Control Point.

Pattern	Description
{0-31}	Represents a service logic host route

84. SnmpAccessAid

Identifies the AID as an SNMP access group.

Pattern	Description
<GROUPNAME>-{SECLEVEL}-{SECMODEL}	GROUPNAME = up to 32 alphanumeric characters (including underscores "_") used to identify a set of views for access control SECLEVEL = the minimum security level required by a message to access the group. Allowed values are: AUTHNOPRIV = authentication and no privacy (default) AUTHPRIV = authentication and privacy NOAUTHNOPRIV = no authentication, no privacy SECMODEL = security model required for access to the group. Allowed values are: ANY = any security model SNMPV1 = SNMP version 1 security SNMPV2C = SNMP version 2c security USM = User-Based Security (default)

85. SnmpViewAid

Identifies the AID as an SNMP access group view.

Pattern	Description
<VIEWNAME>-<VIEWTREE>	VIEWNAME = up to 32 alphanumeric characters (including underscores "_") used to identify a set of view trees. VIEWTREE = up to 63 digits (0-9) and periods (".") that identify the view subtree in numerical dotted notation. For example, the object identifier (OID) for the Internet is "1.3.6.1".

86. SP

Identifies the AID as an active or standby System Processor module in the switch.

Pattern	Description
SP-{A-B}	Represents either SP-A or SP-B

87. SPorIOM

Identifies the AID either as an IOM (by slot number) or as a System Processor (SP) module.

Pattern	Description
IOM-{8,10}	An IOM slot number
SP-{A-B}	SP slot number A or B (System Processor functionality)

88. Ss7LnkAid

Identifies the AID as an SS7 signaling link.

Pattern	Description
{1-40}	Represents an SS7 link

89. Ss7PcAid

Identifies the AID as a destination point code.

Pattern	Description
{0-255}-{0-255}-{0-255}	Represents a point code

90. Ss7TrkAid

Identifies the AID as a unique trunk (or range of trunks) associated with a trunk group number. The first number in the range identifies the trunk group number and the second number identifies the trunk(s). A range of trunks is shown by the beginning and ending numbers separated by two ampersands and a hyphen ("&&-").

Pattern	Description
{1-9999}-{0-16382}	Represents a CIC in a trunk group

91. STS1

Identifies the AID as an STS1 port on an STS1 IOM in the switch.

Pattern	Description
IOM-{1-17}-STS1-{1-8}	Represents a port on an STS1 IOM

92. SubIfAid

Identifies the AID as a subscriber interface number and whether it is a CAS, GR303, ISDN, or MGCP interface.

Pattern	Description
{IFNUM}-<SUBIF>	Represents the subscriber interface, where IFNUM = {1-2147483647} for CAS, {1-32767} for GR303 or ISDN, {1-100000} for MGCP SUBIF = {CAS, GR303, ISDN, MGCP}

93. SubSpeedAid

Identifies the AID with a variable string indicating a subscriber with a string of exactly 10 digits, and an associated speed-dialing code.

Pattern	Description
<SUBCRIBERID>-{2-99}	Represents a subscriber ID and its associated speed-dialing code

94. T0

Identifies the AID as a DS0 channel on an IOM.

Pattern	Description
IOM-{1-17}-PORT-{1-28}-T0-{1-24}	A DS0 channel on a T1 port on a DS1 IOM
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}-T0-{1-24}	A DS0 channel on a T1 port on an STS1 IOM
IOM-{1-17}-T3-{1-8}-PORT-{1-28}-T0-{1-24}	A DS0 channel on a T1 port on a DS3 IOM

95. T3

Identifies the AID as a T3 port on a DS3 IOM in the switch.

Pattern	Description
IOM-{1-17}-T3-{1-8}	Represents a port on a DS3 IOM

96. T3orPORT

Identifies the AID as a port on a DS3 IOM (by slot and port numbers).

Pattern	Description
IOM-{1-17}-STS1-{1-8}	An STS1 port on a DS3 IOM
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}	A T1 port on an STS1 port on a DS3 IOM
IOM-{1-17}-T3-{1-8}	A T3 port on a DS3 IOM
IOM-{1-17}-T3-{1-8}-PORT-{1-28}	A T1 port on a T3 port on a DS3 IOM

97. T3PORT

Identifies the AID as a T1 port on a DS3 IOM (by slot and port numbers).

Pattern	Description
IOM-{1-17}-STS1-{1-8}-PORT-{1-28}	A T1 port on an STS1 port on a DS3 IOM
IOM-{1-17}-T3-{1-8}-PORT-{1-28}	A T1 port on a T3 port on a DS3 IOM

98. TdmTermId

Identifies the AID as a TDM termination on a MEGACO call.

Pattern	Description
Alphanumeric characters in the form: Chassis/TDM/IOM{1-17}/ T{1-8}/ P{1-28}/C{1-24}	Represents a TDM termination as a combination of the chassis name, TDM termination type, IOM, DS3 port, DS1 port, and Channel {1-24}

99. TestPortNum

Identifies the AID as a number of a DS0 channel on a test port.

Pattern	Description
TP-{1-24}	Represents a DS0 channel

100. TgnAid

Identifies the AID as a unique trunk group number.

Pattern	Description
{1-9999}	Represents a unique trunk group number

101. TgnSipId

Identifies the AID as a trunk group unique to a specific Session Access Node. The first part of the AID is the trunk group number and the second part is the Session Access Node.

Pattern	Description
{1-9999}-{1-16}	Represents a trunk group unique to a specific Session Access Node

102. TransSchedAid

Identifies the AID as a translation plan schedule that chooses translations based on the time of day.

Pattern	Description
<transSched> -<prflName>	*transSched* identifies the name of the translation plan schedule with a string of 1-10 alphanumeric characters (Translation plan schedules and translation plans cannot have the same names.) *prflName* (optional only in RTRV) identifies, with a string of 1-20 alphanumeric characters or the value “DEFAULT”, the name of the routing schedule profile, previously defined by PRFL-SCHED, that determines the times and dates to use the listed translation plan.

103. TrigEscListAID

Identifies the AID as an escape (exception) list for a particular trigger type.

Pattern	Description
<trigEscList> -<startRange>	*trigEscList* identifies the name of the trigger type escape list with a string of up to 10 alphanumeric characters; *startRange* identifies the first number in the range of DNs associated with the escape list with a string of exactly 10 digits.

104. TriggerAid

Identifies the AID as a list of AIN triggers.

Pattern	Description
<ainTrigListName> -<index>	*ainTrigListName* identifies the name of the list of AIN triggers with a string of up to 21 alphanumeric characters; *index* identifies the particular trigger associated with the list as an integer with range 1-255. Each trigger has a unique combination of *trigType* and *screenDgts*.

105. TrkAid

Identifies the AID as a unique trunk associated with a trunk group number.

Pattern	Description
{1-9999}-{1-32767}	Identifies the trunk group number and the trunk number

106. VMS

Identifies the AID as an SMDI (Simplified Message Desk Interface) data link between the switch and a Voice Mail System. The pattern is a combination of a generic Message Storage and Retrieval (MSR) system in a VMS and an SMDI data link between it and the switch. A value of "0" for *msrId* indicates that the link is a virtual VMS link.

Pattern	Description
<msrId>-<smdiLnkId>	msrId = {0-999} smdiLnkId = {1-8}

107. VoipPrfl

Identifies the AID as a VoIP call profile.

Pattern	Description
{1-65535}	Represents a VoIP call profile

108. VpId

Identifies the AID as a voice processor on a VoIP IOM. The pattern is a combination of the I/O Module and the voice processor.

Pattern	Description
IOM-{1-17}-VP-{1-8}	Represents a voice processor on a VoIP IOM

109. VpsId

Identifies the AID as a Virtual Circuit Connection (VCC).on a Voice Processor Server (VPS) module. The pattern is a combination of the VPS Module and the VCC.

Pattern	Description
IOM-{1-17}-VCC-{0-799}	Represents a VCC on a VPS Module

NOTES

Error Messages

Errors may be generated by any command or command response message. The format of an error message is as follows:

```
   sid date time
M  ctag DENY
   <errcde>
/* <errmsg> */
;
```

Error Code (errcde)	Error Type	Error Message (errmsg)
EATN	Equipage	Not Valid for Access Type
ENAC	Equipage	Not equipped with Alarm Cutoff
ENAD	Equipage	Not equipped with Audit capability
ENAR	Equipage	Not equipped with Automatic Reconfiguration
ENDG	Equipage	Not equipped with DiaGnostic capability
ENDS	Equipage	Not equipped with Duplex Switching
ENEA	Equipage	Not equipped with Error Analysis capability
ENEQ	Equipage	Not EQuipped
ENEX	Equipage	Not equipped with EXercise capability
ENFL	Equipage	Not equipped for Fault Locating
ENMD	Equipage	Not equipped with Memory Device
ENPM	Equipage	Not equipped for Performance Monitoring
ENPS	Equipage	Not equipped with Protection Switching
ENRI	Equipage	Not equipped for Retrieving specified Information
ENRS	Equipage	Not equipped for ReStoration
ENSA	Equipage	Not equipped for Scheduling Audit
ENSI	Equipage	Not equipped for Setting specified Information
ENSS	Equipage	Not equipped with Synchronization Switching
ICNV	Input	Command Not Valid
IDNV	Input	Data Not Valid
IDRG	Input	Data RanGe (range)
IIAC	Input	Invalid ACcess identifier
IICT	Input	Invalid Correlation Tag
IIFM	Input	Invalid data ForMat
IIPG	Input	Invalid Parameter Grouping
IISP	Input	Invalid Syntax or Punctuation
IITA	Input	Invalid TArget identifier
INUP	Input	Non-null Unimplemented Parameter
IPMS	Input	Parameter MiSsing
ISCH	Input	Syntax invalid CHaracter (new Jul95)
ISPC	Input	Syntax invalid PunCtuation (new Jul95)

Error Code (errcde)	Error Type	Error Message (errmsg)
PICC	Privilege	Invalid Command Code
PIMA	Privilege	Invalid Memory Address
PIMF	Privilege	Invalid Memory File
PLNA	Privilege	Login Not Active
SAAL	Status	Already ALlowed
SABT	Status	ABorTed
SAIN	Status	Already INhibited
SAIS	Status	Already In Service
SAMS	Status	Already in Maintenance State
SAOP	Status	Already OPerated
SAPR	Status	Already in Protection state
SARB	Status	All Resources Busy
SATF	Status	Automatic Test Failed
SCNA	Status	Command Not Abortable
SCNF	Status	Command Not Found
SDAS	Status	Diagnosis Already Started
SDFA	Status	Duplex unit FAiled
SDLD	Status	Duplex unit Locked
SDNA	Status	Duplex unit Not Available
SDNR	Status	Data Not Ready
SDNS	Status	Diagnosis Not Started yet
SFAS	Status	Fault locating Already Started
SFNS	Status	Fault locating Not Started yet
SLNS	Status	Log Not Started yet
SNOS	Status	Not currently Out of Service
SNPR	Status	Not in Protection state
SNRM	Status	system Not in Restoration Mode
SNSR	Status	No Switch Request outstanding
SNVS	Status	Not in Valid State
SPFA	Status	Protection unit FAiled
SPLD	Status	Protection unit Locked
SPNA	Status	Process Not Abortable
SPNF	Status	Process Not Found
SRCI	Status	Requested Command(s) Inhibited
SROF	Status	Requested Operation Failed
SRTO	Status	Reply Time-Out
SSRD	Status	Switch Request Denied
SSRE	Status	System Resources Exceeded
STAB	Status	Test ABorted
SWFA	Status	Working unit FAiled
SWLD	Status	Working unit Locked

TL1 Provisioning Limits

Command	Maximum AID Entries
ANNC-MAP	25
AUDIO-ANNC	1000
AUDIO-MSG	16000
BICC-TRK	21500
CALL-CAPT	20
CALLING-AREA	1024
CARRIER	10000
CAS-IF	30000
CAS-TRK	30000
CCC-LIST	386
CDC	5
COUNTRY	580
CRS-T0 (“nailed-up” DS0s)	2016
DIALPLAN	100
DIALPLAN-TRIGGER	100
DIGITMOD-DN	317000
DIGITMOD-GEN	1000
DIGITMOD-MAP	10000
DIGITMOD-PARAM	1000
DIGITMOD-TNS	2500
DIGIT-SCREEN	250000
GR303-CRV	80000
GR303-IF	56
GR303-PORT	8064
HOME-NPS	25
HOME-NXX	12500
ISDN-IF	2688
ISDN-LNK	2688
LAES-CASE	386

LCC	4096
LIST-AINTRIGGER (escape lists)	100
LIST-AINTRIGGER	1000
LIST-AUTHCODE (2000 list names)	60000
LIST-SUBSCRNBLK	5000
LNPSCREEN-DIGITS	125000
LRN	12500
MGCP-GW	4000
MGCP-LINE	64000
MGCP-LNGRP	64000
NATIONAL-NPA	500
NP-POOLED	1000
NP-PORTED	1000
NP-RESERVED	1000
PC (DPCs for BICC trunks)	12
PC (*pcDir* = ADJ or REM)	255
PC (*pcDir* = OWN)	1
PRFL-CAS	128
PRFL-CIC	128
PRFL-FAILCND	10
PRFL-FRAUDTRAP	10
PRFL-SCHED	255
PRFL-SDP	31
PRFL-TGBILLING	9999
RATE-CENTER	12500
ROUTE	80000
ROUTE-DIGITS	250000
ROUTE-LIST	80000
ROUTE-SCHED	1000
SCCP-ROUTE	255
SCCP-SSN	255
SCREEN-LIST	100000
SIP-IPADDR	32

SLHR-SCP	32
SS7-TRK	80640
SUB-ALTDN	10000
SUB-IF	80000
SUBSCRIBER	80000
SUBSCRIBER-CL4	250000
SUB-SPEED	40000
TOLLFREE-NPA	8
TRANS-PLAN	100
TRANS-SCHED	100
TREATMENT	1000
TRKGRP	9999
VMS-CKTID	5000
VMS-LNK	16

NOTES