Critical Release Notice

Publication number: 297-8021-814
Publication release: Preliminary 18.01

The content of this customer NTP supports the SN07 (DMS) software release.

Bookmarks used in this NTP highlight the changes between the NA015 baseline and the current release. The bookmarks provided are color-coded to identify release-specific content changes. NTP volumes that do not contain bookmarks indicate that the NA015 baseline remains unchanged and is valid for the current release.

Bookmark Color Legend

Black: Applies to new or modified content for NA015 that is valid through the current release.

Red: Applies to new or modified content for NA017 that is valid through the current release.

Blue: Applies to new or modified content for NA018 (SN05 DMS) that is valid through the current release.

Green: Applies to new or modified content for SN06 (DMS) that is valid through the current release.

Purple: Applies to new or modified content for SN07 (DMS) that is valid through the current release.

Attention!
Adobe® Acrobat® Reader™ 5.0 or higher is required to view bookmarks in color.

Publication History

September 2004

Preliminary release 18.01 for software release SN07 (DMS).

For the Preliminary SN07 (DMS) release, the following changes were made:

Volume 1

AIN, AINICOFF, AINICSUB, AINOGOFF, AINOGSB2, ATTAMA

Volume 2

CP, IS41TOPS (obsolete, removed)

Volume 3

no changes

Volume 4

SMSTOPS (new)

Volume 5

TC7WRLSS (new), VOW (new), WINTOPS (new)

Volume 6

no changes

March 2004

Standard release 17.03 for software release SN06 (DMS).

For the Standard SN06 (DMS) release, the following changes were made:

Volume 1

no changes

Volume 2

DCA references removed/marked obsolete

Volume 3

no changes

Volume 4

no changes

Volume 5

TFCANA

Volume 6

DCA references removed/marked obsolete

September 2003

Standard release 17.02 for software release SN06 (DMS).

For the Standard SN06 (DMS) release, the following changes were made:

Volume 1

OM group BTTANDM (new)
OM group BCTPOOL (new)

Volume 2

OM group IS41TOPS (new)

Volume 3

no changes

Volume 4

no changes

Volume 5

OM group TOPSDACC
OM group TOPSISUP
OM group TRK
OM group TRKQOSOM

Volume 6

no changes

June 2003

Preliminary release 17.01 for software release SN06 (DMS).

For the Preliminary SN06 (DMS) release, the following changes were made:

Volume 1

no changes

Volume 2

OM group DCTS

Volume 3

no changes

Volume 4

no changes

Volume 5

OM group TRK2
OM group TRKDCTS
OM group TRKQOSOM (new)

Volume 6

no changes

297-8021-814

DMS-100 Family

North American DMS-100

Operational Measurements Reference Manual Volume 5 of 6

OM Groups TCAPERRS-XPMOVLD

LET0015 and up Standard 14.02 May 2001

NORTEL NETWORKS™

DMS-100 Family

North American DMS-100

Operational Measurements Reference Manual Volume 5 of 6

OM Groups TCAPERRS-XPMOVLD

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1 Operational measurements

Introduction

This chapter contains descriptions of operational measurement (OM) groups. Each OM group description contains the following sections:

- OM description
- Release history
- Registers
- Group structure
- Associated OM groups
- Associated functional groups
- Associated functionality codes
- OM group registers flowchart
- Register descriptions

OM description

This section provides a short description of the data the OM group counts and how the OM group uses this data.

Release history

This section contains a history of changes to the OM group. The release history describes the changes and the software releases that associate with the changes.

Registers

This section indicates how the registers in the OM group appear on the MAP display.

Group structure

This section describes the structure of the OM group that includes:

- the number of OM tuples
- the number of OM key fields

- office parameters
- other information entered associated with the group

Associated OM groups

This section lists other OM groups for the OM group.

Associated functional groups

This section lists the associated functional groups for the OM group.

Associated functionality codes

This section lists the associated functionality codes for the OM group.

OM group registers flowchart

This section provides an operating flowchart of all associated registers for the OM group. The flowchart shows the sequence of events that cause the registers to increase. The flowchart also shows the relationship between registers within the group.

Register descriptions

This section provides a short description of each register that associates with the OM group.

Register descriptions are arranged in alphabetical order within each group. There are three types of registers:

- Peg registers that increase when an event occurs.
- Usage registers that record activities or states at specified time intervals.
- High water registers that indicate the maximum number of items in simultaneous use during the current transfer period.

Each register description contains the following sections:

- register <short name>
- register <short name> release history
- Associated registers
- Associated logs
- Extension registers

Register <short name>

This section expands the register acronym and describes the data the register counts.

If the description refers to registers from a different group, the group name identifies these registers. An underscore and the register name follows the

group name. For example, OFZ_ORGFSET refers to register ORGFSET in group OFZ.

Register <short name> release history

This section shows the software development stream in which the system register was created and lists register changes.

Associated registers

This section lists related registers and explains how these registers relate. This section can include validation formulae or equations. Registers from a different group are identified by the group name and register name, separated by an underscore, for example, OFZ_ORGFSET.

Associated logs

This section lists logs that the system generates, together with events that are counted or related to the understanding of OM data.

Extension registers

This section provides the name of the register that the system uses for overflow when the original register is full. The system multiplies the value in the extension register by 65336. The system adds this total to the original register value to get the total count.

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OM group TC7WRLSS

OM description

TC7WRLSS, TOPS - Common Channel Signalling System #7 - Wireless

Release history

SN07 (DMS)

OM group TC7WRLSS was created and replaces group IS41TOPS in SN07.

Registers

OM group TC7WRLSS registers display on the MAP terminal as follows:

```
INVOKES INVOKES2 INVOKER INVOKER2
RETRESS RETRESS2 RETRESR RETRESR2
RETERRS RETERRR REJECTS REJECTR
-------------------------------------------------------------------------------------------------
ABORTS ABORTR NOTRIDS MBFULL
RTFNOXLA RTFNOXLS RTFSUBCG RTFSUBFL
RTFUNEQ RTFNETFL RTFNETCG RTFMISCE GTTFAIL
```

Group structure

OM group TC7WRLSS provides one tuple for each combination of wireless network type and TOPS wireless application.

Key field: There are four fields as follows:

- SMS_IS41
- SMS_GSM
- WIN_IS41
- WIN_GSM

Associated OM groups

Registers in groups SMSTOPS and WINTOPS are also pegged during wireless TOPS calls.

Associated functional groups

None

Associated functionality codes

Functionality

TOPS Wireless RLT

OM group TC7WRLSS (continued)

Codes

00034426

Registers for TC7WRLSS

The TC7WRLSS OM group consists of twenty-one registers.

Register name (acronym)	Register name (expanded)	Information
INVOKES, INVOKES2	TCAP INVOKE sent	*Description:* INVOKES is a peg register. It is incremented whenever TOPS sends a TCAP INVOKE. *Associated registers:* INVOKES2 *EXT registers:* INVOKES2 *Register validation:* None *Associated logs:* None
INVOKER, INVOKER2	TCAP INVOKE received	*Description:* INVOKER is a peg register. It is incremented whenever TOPS receives a TCAP INVOKE. *Associated registers:* INVOKER *EXT registers:* INVOKER2 *Register validation:* None *Associated logs:* None
RETRESS, RETRESS2	TCAP RETURN RESULT sent	*Description:* RETRESS is a peg register. It is incremented whenever TOPS sends a TCAP RETURN RESULT to the MSC. *Associated registers:* RETRESS2 *EXT registers:* RETRESS2 *Register validation:* None *Associated logs:* None
RETRESR, RETRESR2	TCAP RETURN RESULT received	*Description:* RETRESR is a peg register. It is incremented whenever TOPS receives a TCAP RETURN RESULT from the MC. *Associated registers:* RETRESR2 *EXT registers:* RETRESR2 *Register validation:* None *Associated logs:* None

OM group TC7WRLSS (continued)

Register name (acronym)	Register name (expanded)	Information
RETERRS	TCAP RETURN ERROR sent	*Description:* RETERRS is a peg register. It is incremented whenever TOPS sends a TCAP RETURN ERROR to the MSC. This might indicate a problem on the MSC or TOPS switches, so logs at both switches should be investigated. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* TCAP100
RETERRR	TCAP RETURN ERROR received	*Description:* RETERRR is a peg register. It is incremented whenever TOPS receives a TCAP RETURN ERROR from the MSC. This might indicate a problem on the MSC or TOPS switches, so logs at both switches should be investigated. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* TCAP100
REJECTS	TCAP REJECT sent	*Description:* REJECTS is a peg register. It is incremented whenever TOPS sends a TCAP REJECT to the MSC. This indicates a problem with the TCAP message sent by the MSC, so the MSC's vendor should be contacted. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* TCAP100
REJECTR	TCAP REJECT received	*Description:* REJECTR is a peg register. It is incremented whenever TOPS receives a TCAP REJECT from the MSC or MC. This indicates a problem with the TCAP message sent by TOPS, so Nortel Networks should be contacted. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* TCAP100

OM group TC7WRLSS (continued)

Register name (acronym)	Register name (expanded)	Information
ABORTS	TCAP ABORT sent	*Description:* ABORTS is a peg register. It is incremented whenever TOPS sends a TCAP ABORT. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* TCAP100
ABORTR	TCAP ABORT received	*Description:* ABORTR is a peg register. It is incremented whenever TOPS receives a TCAP ABORT. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* TCAP100
NOTRIDS	No transaction identifiers	*Description:* NOTRIDS is a peg register. It is incremented whenever TOPS attempts to send an IS-41 or GSM TCAP message but cannot because no transaction identifiers (TRIDs) are available. Each TCAP operation requires a TRID to process the response. TRIDs are allocated automatically by the DMS, so if this register is pegged, contact Nortel Networks. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* TOPS131

OM group TC7WRLSS (continued)

Register name (acronym)	Register name (expanded)	Information
MBFULL	Mailbox full - Incoming message from MSC ignored due to heavy traffic	*Description:* MBFULL is a peg register which is incremented whenever a TOPS IS-41 or GSM TCAP message arrives at the TOPS SCP interrupt handler but cannot be sent to the TOPS SCP process due to heavy switch load. This means TOPS is receiving more IS-41 or GSM traffic than it can handle. On wireless DA calls, the incoming message is ignored, which will result in calls going to treatment in the MSC. It is not anticipated that TOPS IS-41 or GSM messaging will ever be high enough to peg this register. If this register is pegged, contact Nortel Networks to increase the number of internal mailboxes available to the TOPS IS-41 SCP application. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* None. Generating a log under these circumstances would further degrade switch performance.
RTFNOXLA	SCCP routing failure: No translation of such nature	*Description:* RTFNOXLA is a peg register which is incremented when the TOPS IS-41 or GSM SCP process receives a UDTS message containing a diagnostic indicating “no translation of such nature”. *Associated registers:* GTTFAIL *EXT registers:* None *Register validation:* None *Associated logs:* A TCAP101 log is generated containing the incoming UDTS message.
RTFNOXLS	SCCP routing failure: No translation for this specific address	*Description:* RTFNOXLS is a peg register which is incremented when the TOPS IS-41 or GSM SCP process receives a UDTS message containing a diagnostic indicating “no translation for this specific address” *Associated registers:* GTTFAIL *EXT registers:* None *Register validation:* None *Associated logs:* A TCAP101 log is generated containing the incoming UDTS message.

OM group TC7WRLSS (continued)

Register name (acronym)	Register name (expanded)	Information
RTFSUBCG	SCCP routing failure: Subsystem congestion	*Description:* RTFSUBCG is a peg register which is incremented when the TOPS IS-41 or GSM SCP process receives a UDTS message containing a diagnostic indicating “subsystem congestion”. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* A TCAP101 log is generated containing the incoming UDTS message.
RTFSUBFL	SCCP routing failure: Subsystem failure	*Description:* RTFSUBFL is a peg register which is incremented when the TOPS IS-41 or GSM SCP process receives a UDTS message containing a diagnostic indicating “subsystem failure”. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* A TCAP101 log is generated containing the incoming UDTS message.
RTFUNEQ	SCCP routing failure: Unequipped user	*Description:* RTFUNEQ is a peg register which is incremented when the TOPS IS-41 or GSM SCP process receives a UDTS message containing a diagnostic indicating “unequipped user”. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* A TCAP101 log is generated containing the incoming UDTS message.

OM group TC7WRLSS (continued)

Register name (acronym)	Register name (expanded)	Information
RTFNETFL	SCCP routing failure: Network failure	*Description:* RTFNETFL is a peg register which is incremented when the TOPS IS-41 or GSM SCP process receives a UDTS message containing a diagnostic indicating “network failure”. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* A TCAP101 log is generated containing the incoming UDTS message.
RTFNETCG	SCCP routing failure: Network congestion	*Description:* RTFNETCG is a peg register that is incremented when the TOPS IS-41 or GSM SCP process receives a UDTS message containing a diagnostic indicating “network congestion”. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* A TCAP101 log is generated containing the incoming UDTS message.

OM group TC7WRLSS (end)

Register name (acronym)	Register name (expanded)	Information
RTFMISCE	SCCP routing failure: Failure other than the above seven	*Description:* RTFMISCE is a peg register which is incremented when the TOPS IS-41 SCP process receives a UDTS message containing a diagnostic other than the previous seven. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* A TCAP101 log is generated containing the incoming UDTS message.
GTTFAIL	Global Title Translation failure	*Description:* GTTFAIL is a peg register. It is incremented whenever TOPS cannot look up GTT information for a destination number. The GTT information is datafilled in Tables C7GTTYPE and C7GTT. When TOPS cannot obtain this information, it cannot send the SMS into the network. The operator or automated node receives a failure indication. A TOPS131 log is generated containing the destination number which caused the failure. Table C7GTT must be updated to include the destination number. This OM can also be pegged when GTT failures occur at other nodes in the network. *Associated registers:* RTFNOXLA and RTFNOXLS *EXT registers:* None *Register validation:* None *Associated logs:* TOPS131

OM group TCAPERRS

OM description

Transaction capabilities application part error counts (TCAPERRS)

The OM group TCAPERRS counts protocol errors the system detects by the transaction capabilities application part (TCAP) for each subsystem.

The TCAP provides a common protocol to format messages, content rules, and exchange procedures across the Common Channel Signaling 7 (CCS7) network. Application processes like the Enhanced 800 Service (E800), which performs operations on remote network nodes, use TCAP.

The TCAP messages are constructed with data elements. Each data element consists of three parts: identifier, length of contents, and content. The TCAP message identifier identifies the TCAP message. The TCAP message identifier contains the information that identifies the transaction. The transaction is the transaction part of the TCAP message. In ANSI, the TCAP message identifier is the package type identifier. In ITV, the TCAP message identifier is the message type identifier.

The TCAP message consists of three layers. The transaction layer associates the message with a unique transaction. The dialogue layer facilitates the dialogue information exchange. The component layer consists of minimum of one TCAP component. There are four types of TCAP components, as follows:

- *invoke* components initiate an operation on a remote node
- *result* components report the successful completion of an invoked operation
- *error* components report attempts to perform an invoked operation, that are not successful
- *reject* components reject the transaction

Two types of errors can occur within the component portion: message format errors and state change errors. Format errors include data values that are not recognized, and data that is not correct or missing. Format errors can also include data that is not reflected. State change errors include messages that do not conform to normal state changes. When the system detects a format error or state change error, TCAP rejects the message. The system sends a reject component to the message originator.

The OM group TCAPERRS registers are grouped into the following allocations and components:

- The transaction allocation registers are TCTPEUPT, TCTPEITP, TCTPESTP, and TCTPEUTI.
- The communication allocation registers are TCDPEUID, TCDPEBDP, TCDPEMDP, and TCDPEIDP.
- The component portion registers are TCCPEUCT, TCCPEICP, and TCCPESCP.
- The invoke component registers are TCICEDII, TCICEUOC, TCICEUXP, and TCICEUCI.
- The return result component registers are TCRCEUCI, TCRCEXRR, and TCRCEUXP.
- The return error component registers are TCECEUCI, TCECEXEC, TCECEUPC, TCECEXPC, and TCECEIP.

Release history

The OM group TCAPERRS was introduced in BCS21.

CSP08

New registers TCDPEUID, TCDPEBDP, TCDPEMDP, and TCDPEIDP added

BCS36

Three new key field values (NCS800, NCS900, and NCSCC) added, NCSSAC deleted

BCS35

Three new key field values (HLRMTX, VLRMTX, and MSCMTX) added

BCS33

Eleven new key field values (GF0-GF9, and GFNTEST) added

BCS31

The MAPMTX subsystem added to key field

BCS29

The CMS subsystem added to key field

BCS24

Authorization code validation application and account code validation application subsystems added to key field

OM group TCAPERRS (continued)

BCS22

The SCCP subsystems added to key field

Registers

The OM group TCAPERRS registers appear on the MAP terminal as follows:

```
TCTPEUPT    TCTPEITP    TCTPESTP    TCTPEUTI
TCCPEUCT    TCCPEICP    TCCPESCP    TCICEDII
TCICEUOC    TCICEUXP    TCICEUCI    TCRCEUCI
TCRCEXRR    TCRCEUXP    TCECEUCI    TCECEXEC
TCECEUPC    TCECEXPC    TCECEIP     TCDPEUID
TCDPEBDP    TCDPEMDP    TCDPEIDP
```

Group structure

The OM group TCAPERRS provides 11 tuples for each subsystem. Each tuple consists of C7_SUBSYSTEM_NAME.

Key field:

(C7_SUBSYSTEM_NAME) for each tuple is the subsystem name: one of TUP, ISDNUP, OAM, E800, ACCS, N00, TCN, BNS, SCPE800, SCPACCS, SCPBNS, AUTHSS, ACCTSS, CMS-Canada only, PVN, NETRAG, CLASS, INTERWRK, MAPMSC, MAPLR, NMS, DOC, LEC, MAPMTX, GF0-GF9, GFNTEST, HLRMTX, VLRMTX, MSCMTX, NCS800, NCS900, and NCSCC.

Info field:

There is no Info field.

Associated OM groups

The OM group TCAPUSAG contains registers that count messages, transactions, and components for each subsystem.

Associated functional groups

The functional groups that associate with OM group TCAPERRS:

- Automatic Calling Card Service (ACCS)
- Common Channel Signaling 7 (CCS7)
- Enhanced 800 Service (E800)

OM group TCAPERRS (continued)

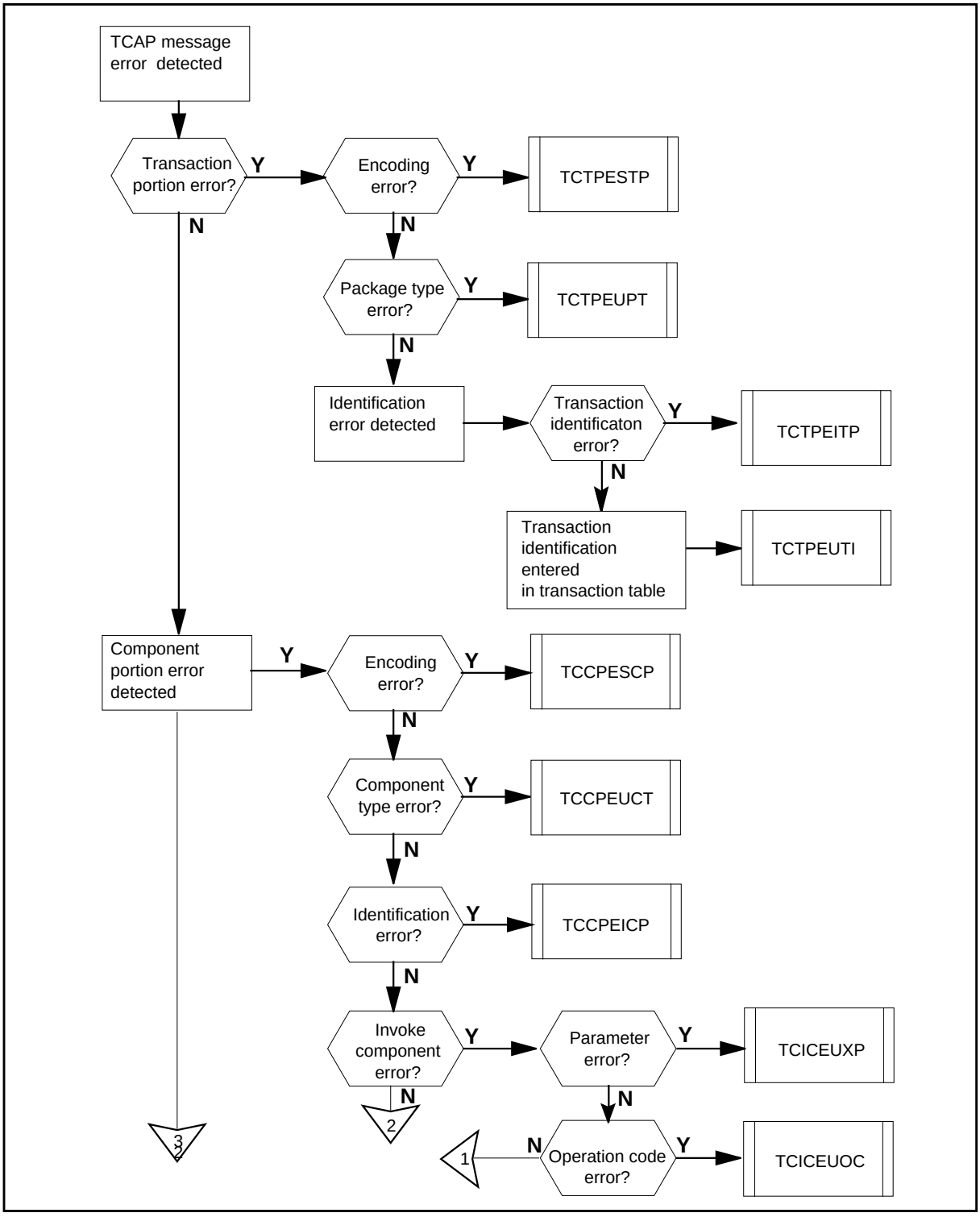
Associated functionality codes

The associated functionality codes for OM group TCAPERRS are in the following table.

Functionality	Code
MTX IS-41 SS7 Carriage	NTXG81AA
DMS250 CCS7 TCAP-based Acct Code and Priv Speed Validation	NTX366AA
DMS250 CCS7 TCAP-based Authcode Validation	NTX367AA
CCS7 Transaction Service Support	NTX550AA
DMS-250 TCAP Protocol	NTXL39AA

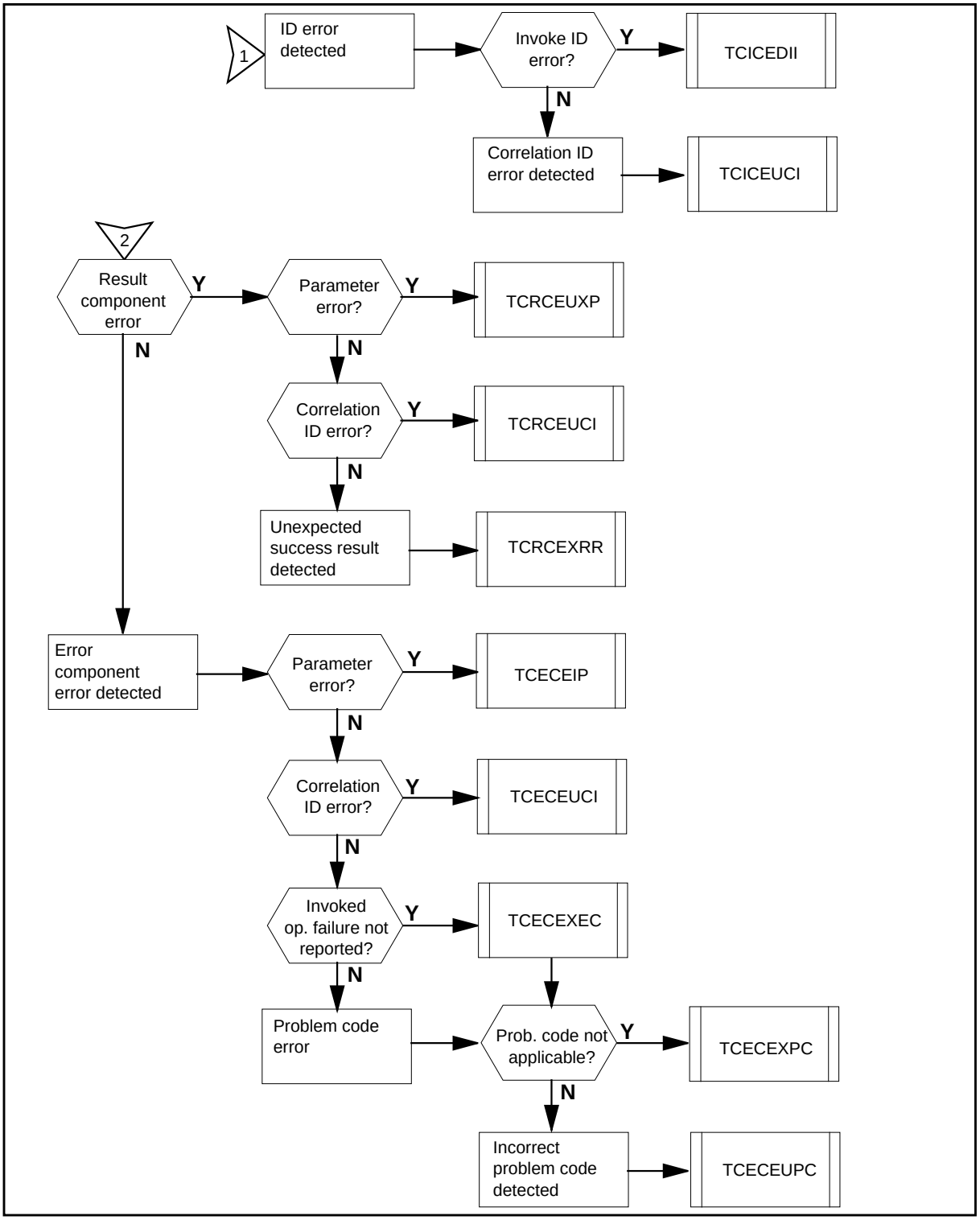
OM group TCAPERRS (continued)

OM group TCAPERRS registers



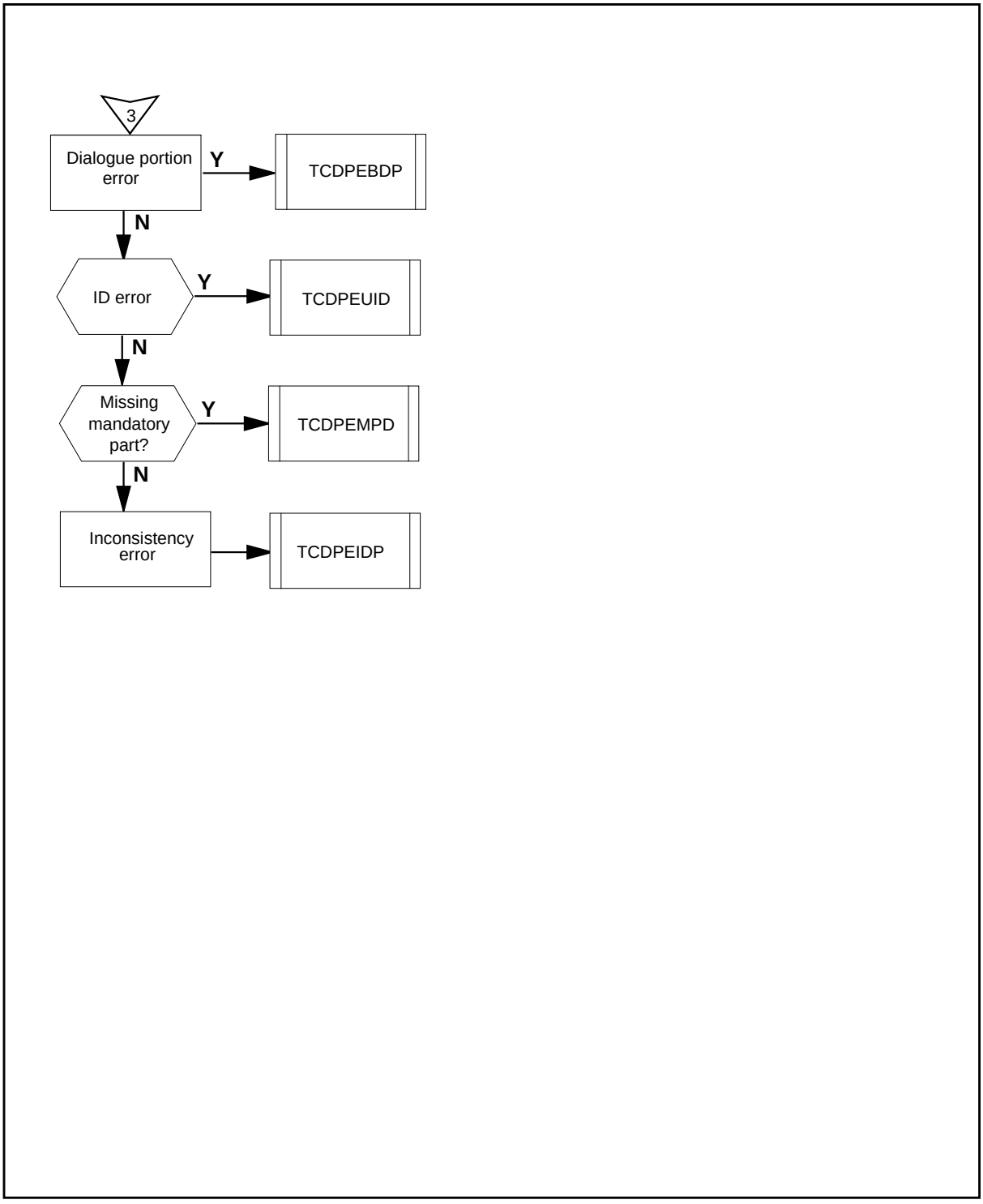
OM group TCAPERRS (continued)

OM group TCAPERRS registers (continued)



OM group TCAPERRS (continued)

OM group TCAPERRS registers (continued)



Register TCCPEICP

TCAP component portion error wrong component portion (TCCPEICP)

Register TCCPEICP counts received components that contain an identifier that is not correct.

Register TCCPEICP release history

Register TCCPEICP was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCCPESCP

TCAP component portion error badly structured component portion (TCCPESCP)

Register TCCPESCP counts components that the system receives that contain a dangerous coding problem, for example a length that is not correct.

Register TCCPESCP release history

Register TCCPESCP was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCCPEUCT

TCAP component portion error unrecognized component type (TCCPEUCT)

Register TCCPEUCT counts messages that the system receives that contain a wrong component type.

Register TCCPEUCT release history

Register TCCPEUCT was introduced in BCS21.

Associated registers

There are no associated registers.

OM group TCAPERRS (continued)

Associated logs

There are no associated logs.

Register TCDPEBDP

TCAP communication allocations error: bad dialogue portions (TCDPEBDP)

Register TCDPEBDP counts incoming messages that contain bad dialogue portions.

Register TCDPEBDP release history

Register TCDPEBDP was released in CSP08.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCDPEIDP

TCAP communication allocation error: inconsistent dialogue portions (TCDPEIDP)

Register TCDPEIDP counts incoming messages that contain dialogue portions that are not consistent.

Register TCDPEIDP release history

Register TCDPEIDP was released in CSP08.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCDPEMPD

TCAP communication allocation error: dialogue portions with missing mandatory parts (TCDPEMPD)

Register TCDPEMPD counts incoming messages that contain dialogue portions that are missing required information.

Register TCDPEMPD release history

Register TCDPEMPD was released in CSP08.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCDPEUID

TCAP dialogue portion error: bad dialogue portion identifiers (TCDPEUID)

Register TCDPEUID counts incoming TCAP messages that contain bad dialogue portion IDs.

Register TCDPEUID release history

Register TCDPEUID was released in CSP08.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCECEIP

TCAP return error component error incorrect parameter (TCECEIP)

Register TCECEIP counts return error components that contain a parameter that is not correct.

Register TCECEIP release history

Register TCECEIP was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCECEUCI

TCAP return error component error unrecognized correlation identification (TCECEUCI)

Register TCECEUCI counts return error components that contain a correlation identification that does not reflect an operation in progress.

OM group TCAPERRS (continued)

Register TCECEUCI release history

Register TCECEUCI was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCECEUPC

TCAP return error component error unrecognized problem code (TCECEUPC)

Register TCECEUPC counts return error components that contain a problem code that is not correct.

Register TCECEUPC release history

Register TCECEUPC was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCECEXEC

TCAP return error component error unexpected return error component (TCECEXEC)

Register TCECEXEC counts return error components that do not report failure of the invoked operation.

Register TCECEXEC release history

Register TCECEXEC was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCECEXPC

TCAP return error component error not planned problem code (TCECEXPC)

Register TCECEXPC counts return error components that contain a problem code that is not applicable to the invoked operation.

Register TCECEXPC release history

Register TCECEXPC was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCICEDII

TCAP invoke component error duplicate invoke identification (TCICEDII)

Register TCICEDII counts invoke components that contain an invoke identification that the system assigns to another operation in progress.

Register TCICEDII release history

Register TCICEDII was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCICEUCI

TCAP invoke component error unrecognized correlation identification (TCICEUCI)

Register TCICEUCI counts invoke components that contain a correlation identification that does not reflect an operation in progress.

Register TCICEUCI release history

Register TCICEUCI was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TCAPERRS (continued)

Register TCICEUOC

TCAP invoke component error unrecognized operation code (TCICEUOC)

Register TCICEUOC counts invoke components that contain an operation code that is not correct.

Register TCICEUOC release history

Register TCICEUOC was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCICEUXP

TCAP invoke component error not defined or not planned parameter (TCICEUXP)

Register TCICEUXP counts invoke components that contain a parameter that is not correct.

Register TCICEUXP release history

Register TCICEUXP was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCRCEUCI

TCAP return result component error unrecognized correlation identification (TCRCEUCI)

Register TCRCEUCI counts return result components that contain a correlation identification that does not indicate an operation in progress.

Register TCRCEUCI release history

Register TCRCEUCI was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCRCEUXP

TCAP return result component error not defined or not planned parameter (TCRCEUXP)

Register TCRCEUXP counts return result components that contain a parameter that is not correct.

Register TCRCEUXP release history

Register TCRCEUXP was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCRCEXRR

TCAP return result component error unexpected return result (TCRCEXRR)

Register TCRCEXRR counts return result components that occur in response to invoked operations that did not require a return result component.

Register TCRCEXRR release history

Register TCRCEXRR was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCTPEITP

TCAP transaction portion error incorrect transaction portion (TCTPEITP)

Register TCTPEITP counts received messages that contain an identifier that is not correct in the transaction portion.

Register TCTPEITP release history

Register TCTPEITP was introduced in BCS21.

OM group TCAPERRS (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCTPESTP

TCAP transaction portion error incorrectly structured transaction portion (TCTPESTP)

Register TCTPESTP counts received messages that have an encoding problem in the transaction portion, for example, a length that is not correct.

Register TCTPESTP release history

Register TCTPESTP was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCTPEUPT

TCAP transaction portion error unrecognized package type (TCTPEUPT)

Register TCTPEUPT counts received messages that contain package types that are not correct.

Register TCTPEUPT release history

Register TCTPEUPT was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCTPEUTI

TCAP transaction allocation error unrecognized transaction identification (TCTPEUTI)

Register TCTPEUTI counts received messages that contain a transaction identification that is not correct.

Register TCTPEUTI release history

Register TCTPEUTI was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TCAPUSAG

OM description

Transaction capabilities application part usage measurements (TCAPUSAG)

The OM group TCAPUSAG records the use of the transaction capabilities application part (TCAP) for each subsystem. Examples of transaction capabilities are: messages, transactions and components.

The TCAP provides a common protocol for message formats, content rules, and exchange procedures across the Common Channel Signaling 7 (CCS7) network. Application processes like the Enhanced 800 Service (E800), which performs operations on remote network nodes, use the TCAP.

The TCAP messages are constructed with data elements. Each data element consists of three parts: identifier, length of contents, and content. The TCAP message identifier is the package type identifier. The package type identifier identifies the TCAP message and contains the information that identifies the transaction. The transaction is the transaction part of the TCAP message.

The TCAP message contents field can have up to three data elements:

- transaction identification, which is needed to associate the message with a unique transaction
- dialogue portions which the system uses to facilitate dialogue information exchange
- data element, which contains a minimum of one component

The component portion of a message consists of a sequence of a minimum of one TCAP component. There are four TCAP components:

- *invoke* components initiate an operation on a remote node
- *result* components report the successful completion of an invoked operation
- *error* components report attempts to invoke operations, that are not successful
- *reject* components reject the transaction

Release history

The OM group TCAPUSAG was introduced in BCS21.

CSP08

New registers TCDPUSE and TCDPUSE2 were introduced in CSP08.

BCS36

Three new key field values (NCS800, NCS900, and NCSCC) were introduced and NCSSAC was deleted in BCS36.

BCS35

Three new key field values (HLRMTX, VLRMTX, and MSCMTX) were introduced in BCS35.

BCS33

Eleven new key field values (GF0-GF9) and GFNTEST were introduced in BCS33.

BCS31

The MAPMTX subsystem was added to key field in BCS31.

BCS29

CMS subsystem was added to key field in BCS29.

BCS23

Registers TCTRANS, TCNORMAL, and TCFORCED were deleted in BCS23.

BCS22

Registers TCMSGOU2, TCMSGIN2, TCQWPER2, TCQNPER2, TCCWPER2, TCCNPER2, TCRESPN2, TCINVKL2, TCINVKN2, TCRSLTL2, TCRSLTN2, TCRTERR2, and TCREJEC2 were activated in BCS22. Registers TCTRANS, TCNORMAL, and TCFORCED were set to zero.

BCS21

Registers TCMSGOU2, TCMSGIN2, TCQWPER2, TCQNPER2, TCCWPER2, TCCNPER2, TCRESPN2, TCINVKL2, TCINVKN2, TCRSLTL2, TCRSLTN2, TCRTERR2, and TCREJEC2 were set to zero in BCS21.

Registers

The OM group TCAPUSAG registers appears on the MAP terminal as follows:

OM group TCAPUSAG (continued)

TCMSGOUT	TCMSGOU2	TCMSGIN	TCMSGIN2
TCUNIDIR	TCUNIDI2	TCQWPERM	TCQWPER2
TCQNPERM	TCQNPER2	TCCWPERM	TCCWPER2
TCCNPERM	TCCNPER2	TCRESPNS	TCRESPN2
TCINVKL	TCINVKL2	TCINVKNL	TCINVKN2
TCRSLTL	TCRSLTL2	TCRSLTNL	TCRSLTN2
TCRTERR	TCRTERR2	TCREJECT	TCREJEC2
TCABORT	TCABORT2	TCDPUSE	TCDPUSE2

Group structure

The OM group TCAPUSAG provides one tuple for each subsystem.

Key field

(C7_SUBSYSTEM_NAME) for each tuple is the subsystem name: one of TUP, ISDNUP, OAM, E800, ACCS, N00, TCN, BNS, SCPE800, SCPACCS, SCPBNS, AUTHSS, ACCTSS, CMS-Canada only, PVN, NETRAG, CLASS, INTERWRK, MAPMSC, MAPLR, NMS, DOC, LEC, MAPMTX, GF0-GF9, GFNTEST, HLRMTX, VLRMTX, MSCMTX, NCS800, NCS900, and NCSCC.

Info field:

There is no info field.

Associated OM groups

The OM group TCAPPERRS contains registers that count the protocol errors the TCAP detects for each subsystem.

Associated functional groups

The following functional groups associate with OM group TCAPUSAG:

- Automatic Calling Card Service (ACCS)
- Common Channel Signaling 7 (CCS7)
- Enhanced 800 Service (E800)

OM group TCAPUSAG (continued)

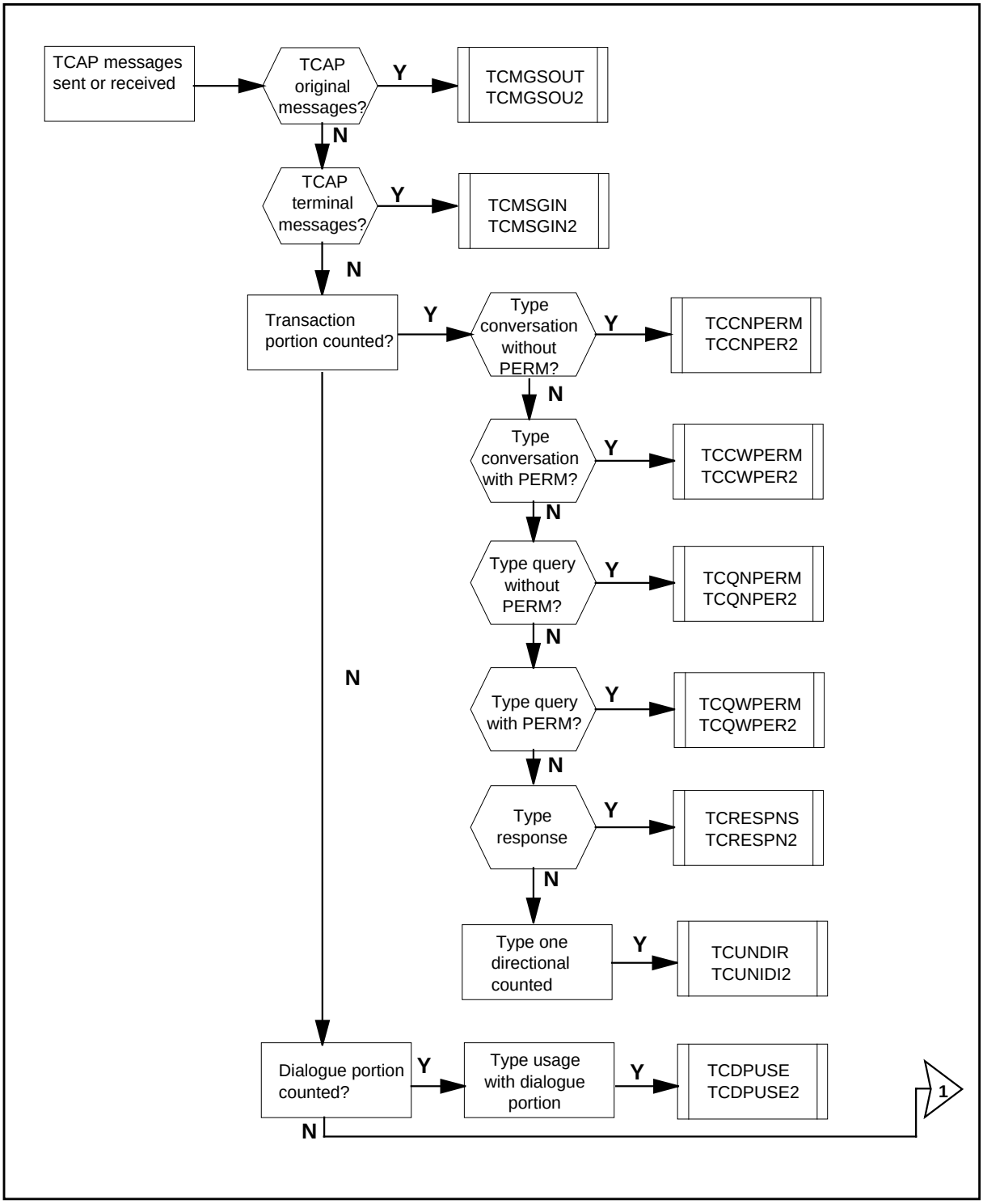
Associated functionality codes

The associated functionality codes for OM group TCAPUSAG appear in the following table.

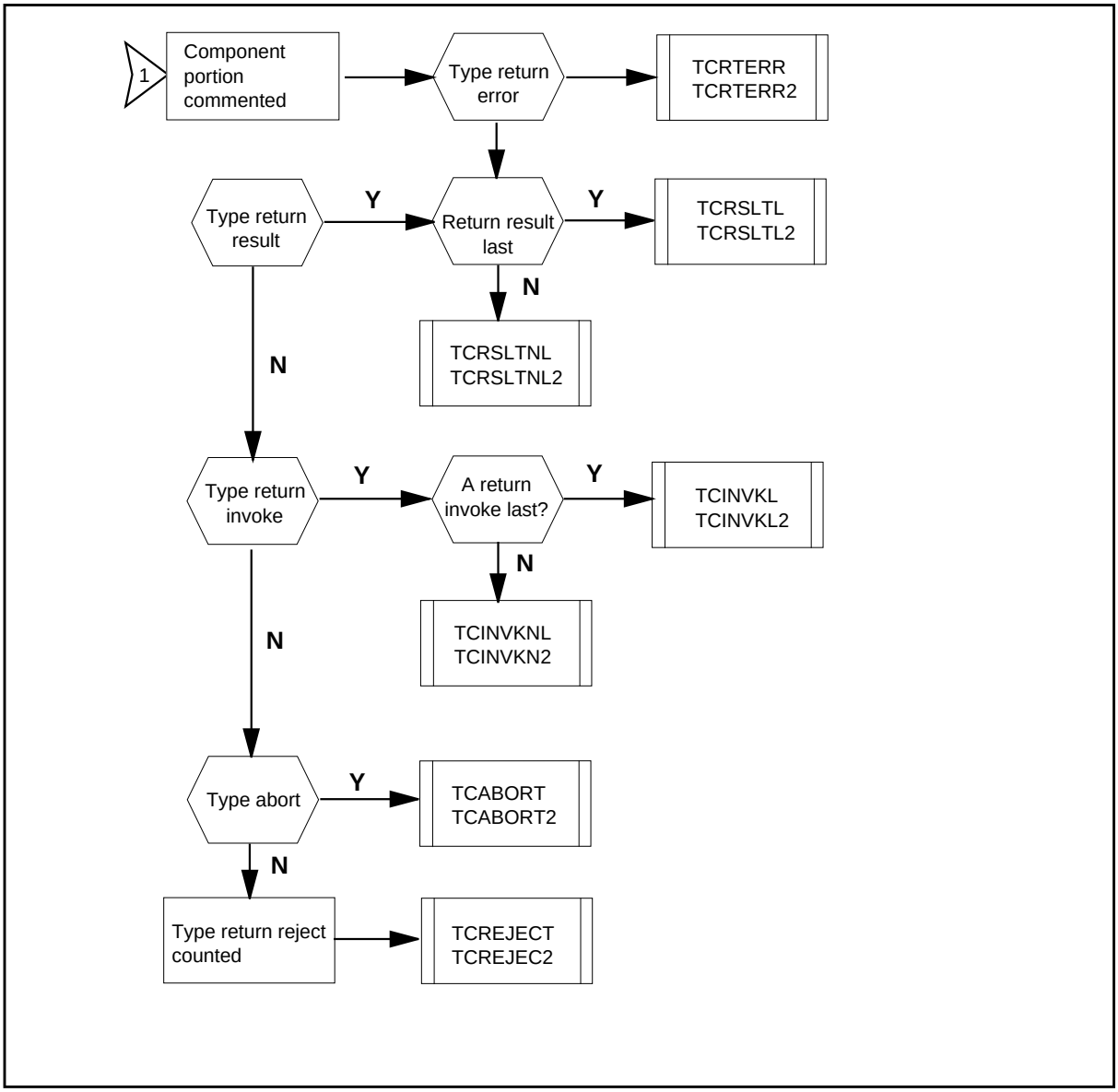
Functionality	Code
MTX IS-41 SS7 Carriage	NTXG81AA
DMS250 CCS7 TCAP-based Acct Code and Priv Speed Validation	NTX366AA
DMS250 CCS7 TCAP-based Authcode Validation	NTX367AA
CCS7--Transaction Service Support	NTX550AA
DMS-250 TCAP Protocol	NTXL39AA

OM group TCAPUSAG (continued)

The OM group TCAPUSAG registers



OM group TCAPUSAG registers (continued)



Register TCABORT

Total number of TCAP messages sent or received with package type Abort

TCCNPERM counts the TCAP messages sent or received that contain the package type Abort.

Register TCABORT release history

Register TCABORT was introduced in BCS36.

OM group TCAPUSAG (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCABORT2

Register TCCNPERM

Total number of TCAP messages sent or received with package type Conversation Without Permission (TCCNPERM)

Register TCCNPERM counts the TCAP messages that the system sends or receives that contain the package type Conversation Without Permission. A message with this package type continues a transaction. The message informs the receiving node that the node cannot end the transaction normally. Each message contains one TCAP package. Conversation packages always associate with a transaction.

Register TCCNPERM release history

BCS22

Register TCCNPER2 was activated in BCS22.

BCS21

Register TCCNPERM and TCCNPER2 were added in BCS21. Register TCCNPER2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCCNPER2

Register TCCWPERM

Total number of TCAP messages sent or received with package type Conversation With Permission (TCCWPERM)

Register TCCWPERM counts TCAP messages that the system sends or receives that contain package type Conversation With Permission. A message

with this package type continues a transaction. The message informs the receiving node that the node may end the transaction normally. Each message contains one TCAP package. Conversation packages always associate with a transaction.

Register TCCWPERM release history

BCS22

Register TCCWPER2 was activated in BCS22.

BCS21

Register TCCWPERM and TCCWPER2 was added in BCS21. Register TCCWPER2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCCWPER2

Register TCDPUSE

Total number of TCAP messages sent or received that contain a dialogue position (TCDPUSE)

Register TCDPUSE counts incoming and outgoing TCAP messages that contain a dialogue portion.

Register TCDPUSE release history

Register TCDPUSE was introduced in CSP08.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCDPUSE2

Register TCDPUSE2 is the overflow register for TCDPUSE. Register TCDPUSE2 counts the number of times that TCDPUSE overflows to 0.

OM group TCAPUSAG (continued)

Register TCFORCED

Total number of forced transmission terminations (TCFORCED)

Register TCFORCED counts forced transmission terminations. A forced termination means that the remote node sent a response package without permission. A forced termination can also mean that the local application cancelled a transaction without permission.

Register TCFORCED release history

BCS23

Register TCFORCED was deleted in BCS23.

BCS22

Register TCFORCED was set to zero in BCS22.

BCS21

Register TCFORCED was added in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCINVKL

Total number of components sent or received of type Invoke Last (TCINVKL)

Register TCINVKL counts Invoke Last components that the system sends or receives. An Invoke component initiates an operation on a remote node. Invoke Last indicates that additional replies do not follow. There can be several components in each package.

Register TCINVKL release history

BCS22

Register TCINVKL2 was activated in BCS22.

BCS21

Registers TCINVKL and TCINVKL2 are added in BCS21. Register TCINVKL2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCINVKL2

Register TCINVKNL

Total number of components sent or received of type Invoke Not Last (TCINVKL)

Registers TCINVKNL counts Invoke Not Last components that the system sends or receives. An Invoke component initiates an operation on a remote node. An Invoke Not Last component indicates that additional replies follow. There can be several components in each package.

Register TCINVKNL release history

BCS22

Register TCINVKN2 was activated in BCS22.

BCS21

Register TCINVKNL and TCINVKN2 were added in BCS21. Register TCINVKN2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCINVKN2

Register TCMSGIN

Total TCAP messages terminating at this node (TCMSGIN)

Register TCMSGIN counts the transactions that terminate at the remote network. The system can terminate a transaction without receiving a message. Not all received messages associate with a transaction.

Register TCMSGIN release history

BCS22

Register TCMSGIN2 was activated in BCS22.

OM group TCAPUSAG (continued)

BCS21

Registers TCMSGIN and TCMSGIN2 were added in BCS21. Register TCMSGIN2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCMSGIN2

Register TCMSGOUT

Total TCAP messages originating on this node (TCMSGOUT)

Register TCMSGOUT counts TCAP messages. Each transaction consists of a minimum of one message that the system sends to a remote network node. Not all sent messages associate with a transaction.

Register TCMSGOUT release history

BCS22

Register TCMSGOUT was activated in BCS22.

BCS21

Registers TCMGSOUT and TCMSGOU2 were added in BCS21. Register TCMSGOU2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCMGSOU2

Register TCNORMAL

Total number of transactions terminated normally (TCNORMAL)

Register TCNORMAL counts transactions that terminate normally. A normal termination means that the remote node had permission to terminate and sent

a response package. A normal termination also means the local application had permission and terminated the transaction.

Register TCNORMAL release history

BCS23

Register TCNORMAL was deleted in BCS23.

BCS22

Register TCNORMAL was set to zero in BCS22.

BCS21

Register TCNORMAL was added in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCQNPERM

Total number of TCAP message sent or received with package type Query Without Permission (TCQNPERM)

Register TCQNPERM counts TCAP messages that the system sends or receives, that have the package type Query Without Permission. This package type initiates a transaction and informs the destination node that the node may not terminate the transaction normally. Each message has one TCAP package. Outgoing query packages associate with a transaction. Incoming packages do not associate with a transaction.

Register TCQNPERM release history

BCS22

Register TCQNPER2 was activated in BCS22.

BCS21

Registers TCQNPERM and TCQNPER2 added. Register TCQNPER2 set to zero.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TCAPUSAG (continued)

Extension registers

TCQNPER2

Register TCQWPERM

Total number of TCAP messages sent or received with package type Query With Permission (TCQWPERM)

Register TCQWPERM counts TCAP messages that the system sends or receives, that have package type Query With Permission. This package type initiates a transaction and informs the destination node that the node can end the transaction normally. Each message contains one TCAP package. Outgoing query packages associate with a transaction. Incoming query packages do not associate with a transaction.

Register TCQWPERM release history

BCS22

Register TCQWPER2 was activated in BCS22.

BCS21

Register TCQWPERM and TCQWPER2 were added in BCS21. Register TCQWPER2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCQWPER2

Register TCREJECT

Total number of components sent or received of type Reject (TCREJECT)

Register TCREJECT counts Reject components that the system sends or receives. The system sends the Reject component in reply to a message or component that contains a protocol error. There can be several components in each package.

Register TCREJECT release history

BCS22

Register TCREJEC2 was activated in BCS27.

BCS21

Registers TCREJECT and TCREJEC2 were added in BCS21. Register TCREJEC2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCREJEC2

Register TCRESPNS

Total number of TCAP messages sent or received with package type Response (TCRESPNS)

Register TCRESPNS counts TCAP messages that the system sends or receives that contain the package type Response. This package type ends the transaction normally. Each message contains one TCAP package. Response packages always associate with a transaction.

Register TCRESPNS release history

BCS22

Register TCRESPN2 was activated in BCS22.

BCS21

Registers TCRESPNS and TCRESPN2 were added in BCS21. TCRESPN2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCRESPN2

Register TCRSLTL

Total number of components sent or received of type Return Result Last (TCRSLTL)

OM group TCAPUSAG (continued)

Register TCRSLTL counts Return Result Last components that the system sends or receives. The system sends a Return Result component in reply to an Invoke component whose operation is completed. Return Result Last indicates that no additional result components follow.

Register TCRSLTL release history

BCS22

Register TCRSLTL2 was activated in BCS22.

BCS21

Registers TCRSLTL and TCRSLTL2 were added in BCS21. Register TCRSLTL2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCRSLTL2

Register TCRSLTNL

Total number of components sent or received of type Return Result Not Last (TCRSLTNL)

Register TCRSLTNL counts Return Result Not Last components that the system sends or receives. The system sends a result component in reply to an Invoke component whose operations complete. Return Result Not Last indicates that no additional replies follow.

Register TCRSLTNL release history

BCS22

Register TCRSLTN2 was activated in BCS22.

BCS21

Registers TCRSLTNL and TCRSLTN2 were added in BCS21. Register TCRSLTN2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCRSLTN2

Register TCRTERR

Total number of components sent or received of type Return Error (TCRTERR)

Register TCRTERR counts components of type Return Error that the system sends or receives. The system sends an error component in reply to an Invoke component that has an operation that failed. There can be several components in each package.

Register TCRTERR release history

BCS22

Register TCRTERR2 was activated in BCS22.

BCS21

Registers TCRTERR and TCRTERR2 were added in BCS21. Register TCRTERR2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCRTERR2

Register TCTRANS

Total number of TCAP transactions

TCTRANS counts transactions that all applications initiate on this remote network node using the TCAP.

Register TCTRANS release history

BCS23

Register TCTRANS was deleted in BCS23.

BCS22

Register TCTRANS was set to zero in BCS22.

OM group TCAPUSAG (end)

BCS21
Register TCTRANS was added in BCS21.

Associated registers
There are no associated registers.

Associated logs
There are no associated logs.

Register TCUNIDIR
Total number of TCAP messages sent or received with package type one directional (TCUNIDIR)

Register TCUNIDIR counts TCAP messages that the system sends or receives that contain a one directional package type. A message with a one directional package type flows in one direction only. Each message has one TCAP.

Register TCUNIDIR release history
BCS22
Register TCUNIDI2 was activated in BCS22.

BCS21
Registers TCUNIDIR and TCUNIDI2 were added in BCS21. Register TCUNIDI2 was set to zero in BCS21.

Associated registers
There are no associated registers.

Associated logs
There are no associated logs.

Extension registers
TCUNIDI2

OM group TCN7ERRS

OM Description

Transaction capabilities application part CCS7 errors (TCN7ERRS)

The OM group TCN7ERRS counts errors for the transaction capabilities application part (TCAP). The TCAP functions in the CCITT common channel signaling 7 (CCS7) protocol.

The OM group TCN7ERRS error counts are grouped into two major categories: transaction part errors and component portion errors.

Component portion errors are divided into the following problem codes:

- general problems
- invoke problems
- return result problems
- return error problems

Release history

The OM group TCN7ERRS was introduced in BCS34.

Registers

The OM group TCN7ERRS registers appear on the MAP terminal as follows:

```
TNTPEUPT    TNTPEITP        TNTPESTP    TNTPEUTI
TNTPERLM    TNCPEUCT        TNCPEMIC    TNCPESCP
TNICEDII    TNICEUOC        TNICEMIP    TNICEUCI
TNICERLM    TNICERLS        TNICELRU    TNICEULO
TNRCEUII    TNRCEXRR        TNRCEMIP    TNECEUII
TNECEXEC    TNECEUPC        TNECEXPC    TNECEMIP
```

Group structure

The OM group TCN7ERRS provides one tuple for each TCAP application.

Key field:
C7_SUBSYSTEM_NAME

Info field:
There is no info field.

Associated OM groups

TCN7USAG

OM group TCN7ERRS (continued)

Associated functional groups

The following functional groups are for OM group TCN7ERRS:

- CCITT SCCP (011) and TCAP

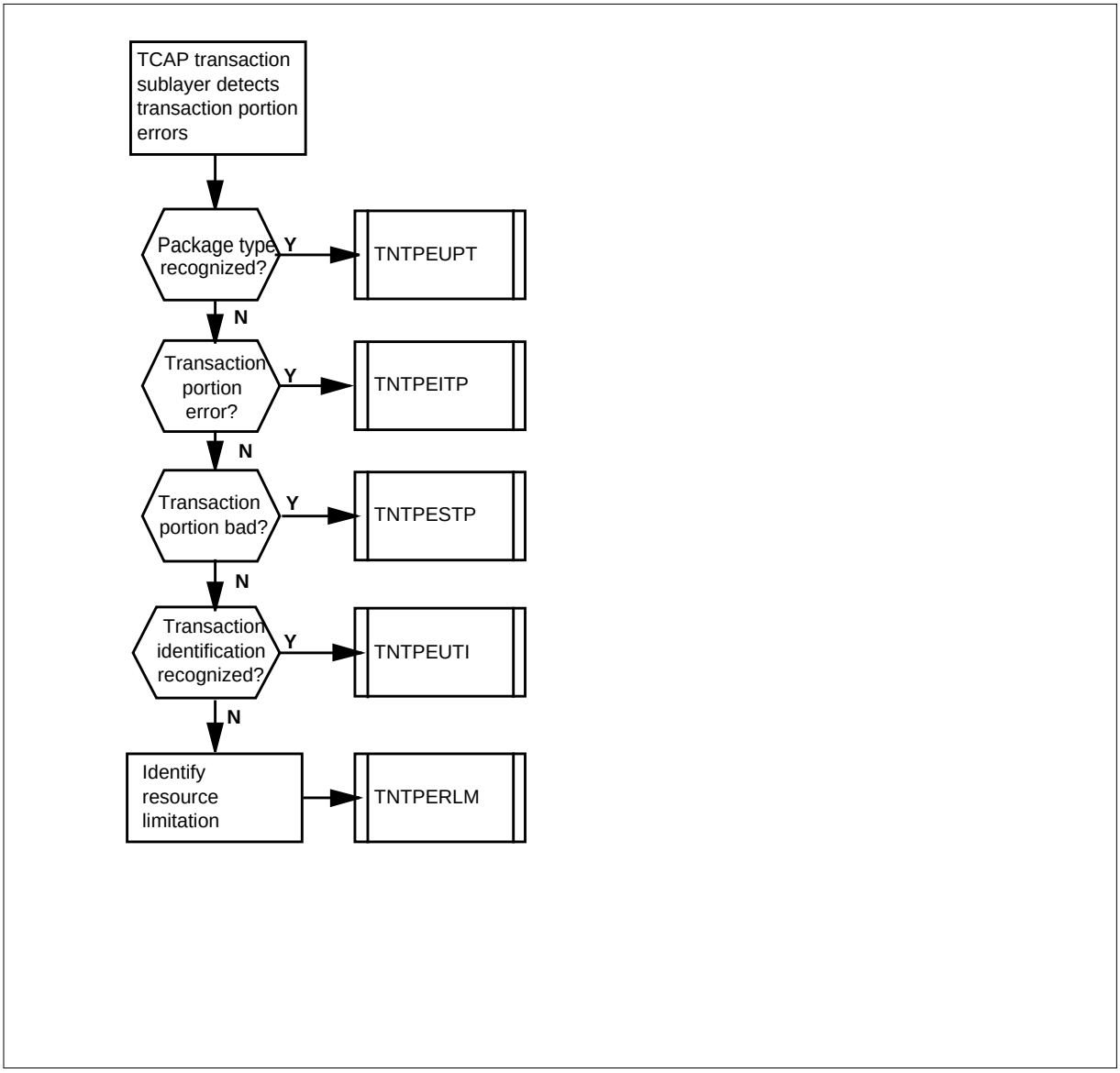
Associated functionality codes

The associated functionality codes for OM group TCN7ERRS appear in the following table.

Functionality	Code
CCS7 Base	TEL00008

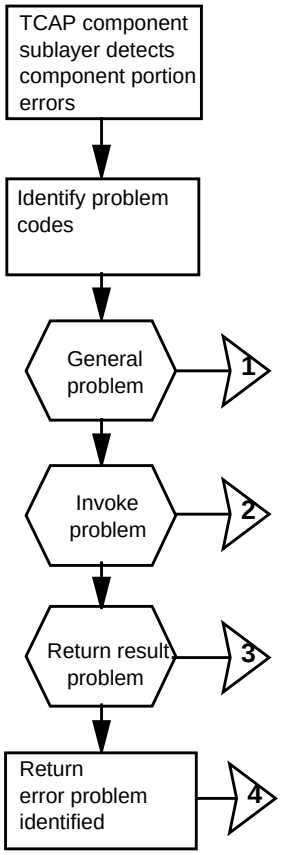
OM group TCN7ERRS (continued)

OM group TCN7ERRS registers - transaction portion errors



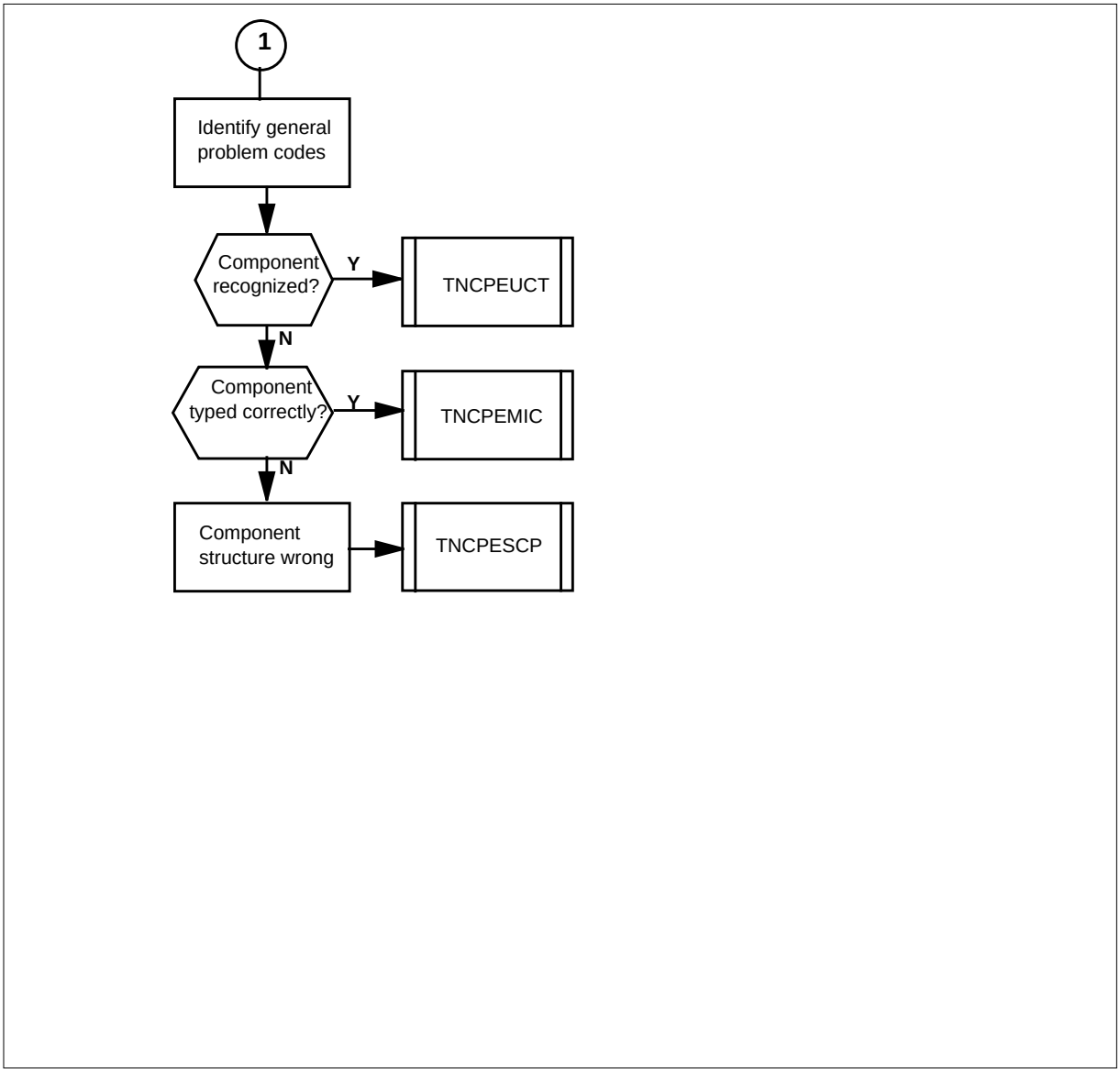
OM group TCN7ERRS (continued)

OM group TCN7ERRS registers - component portion errors



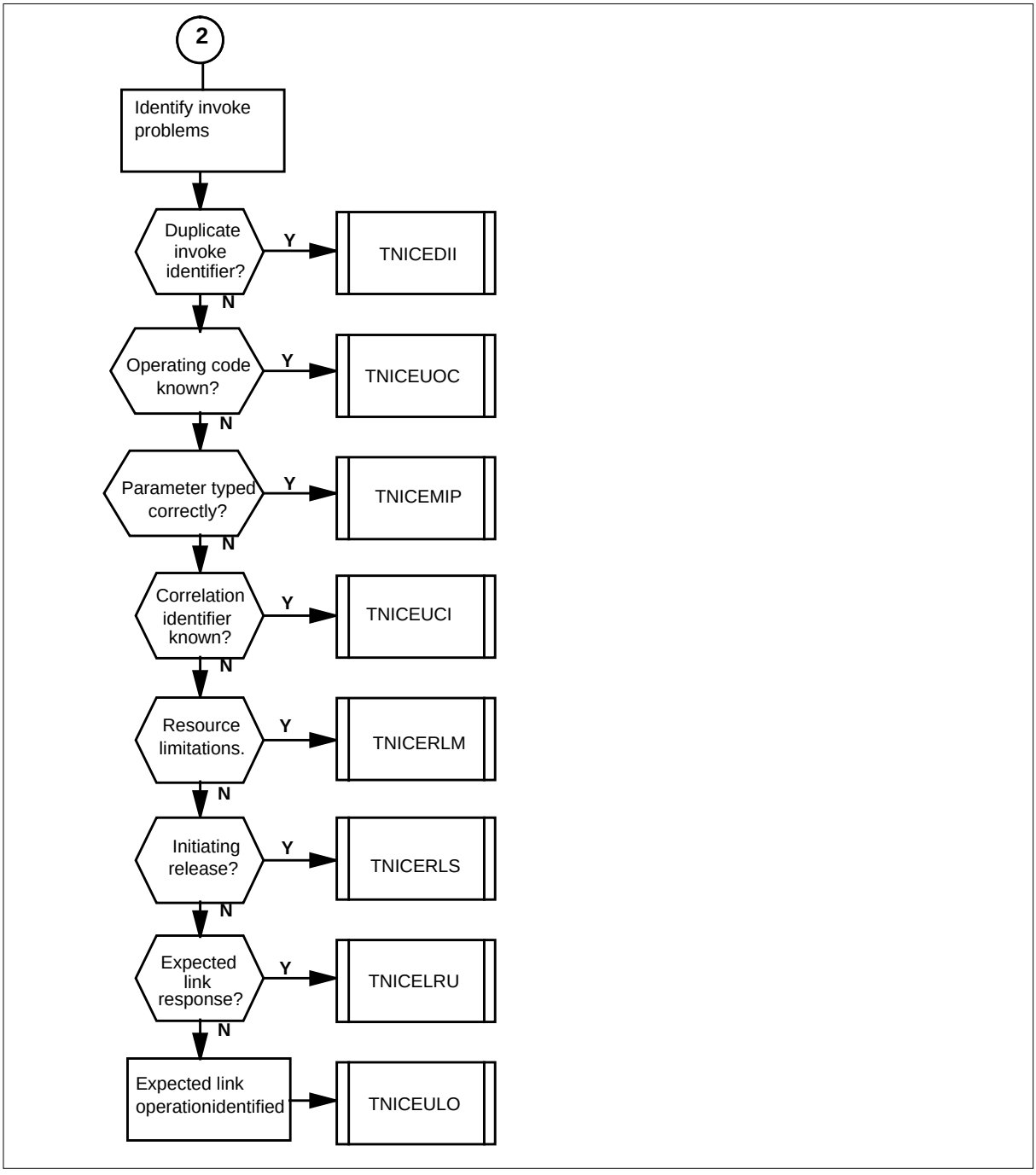
OM group TCN7ERRS (continued)

OM group TCN7ERRS registers - general problem codes



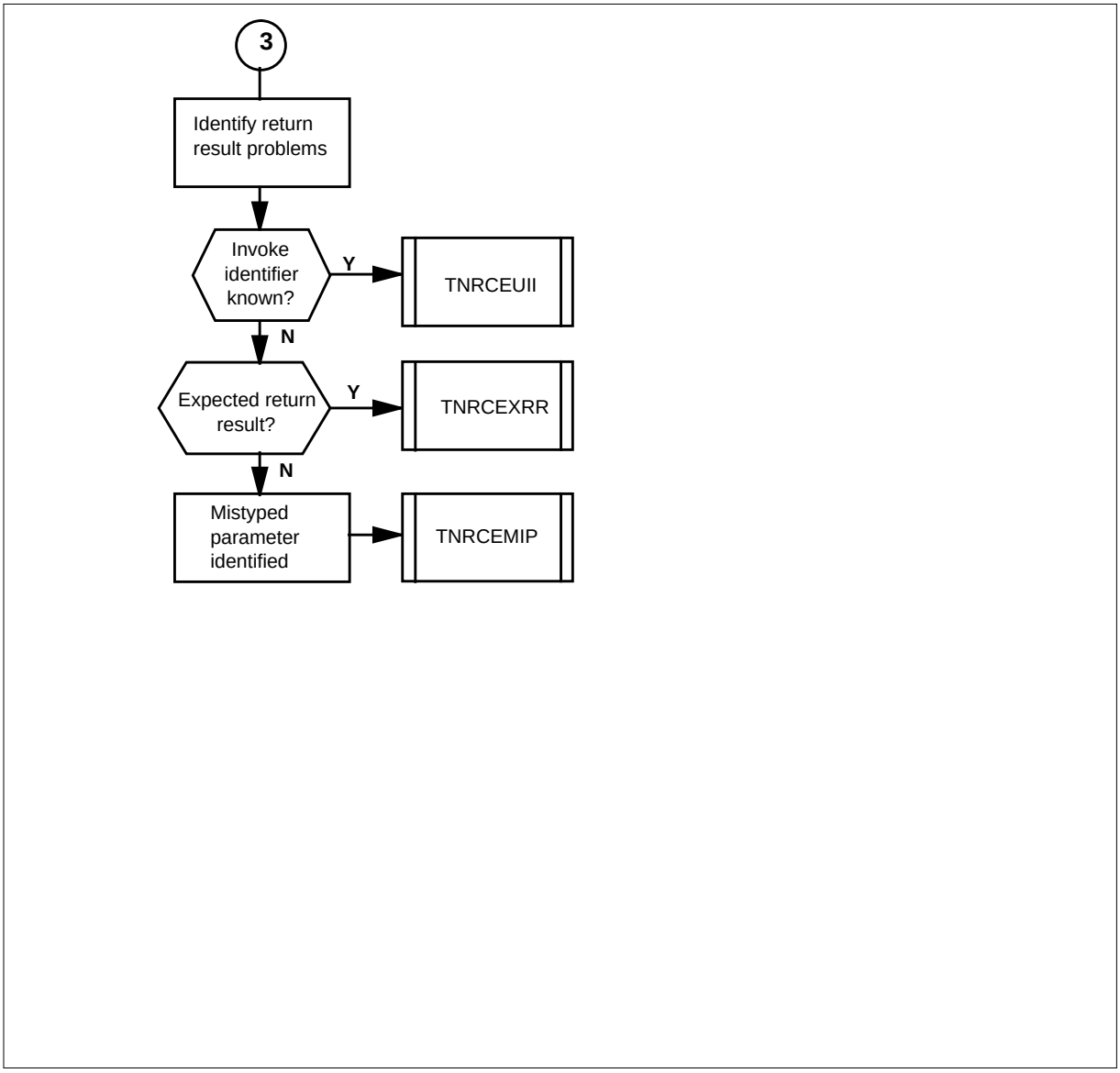
OM group TCN7ERRS (continued)

OM group TCN7ERRS registers - invoke problem codes



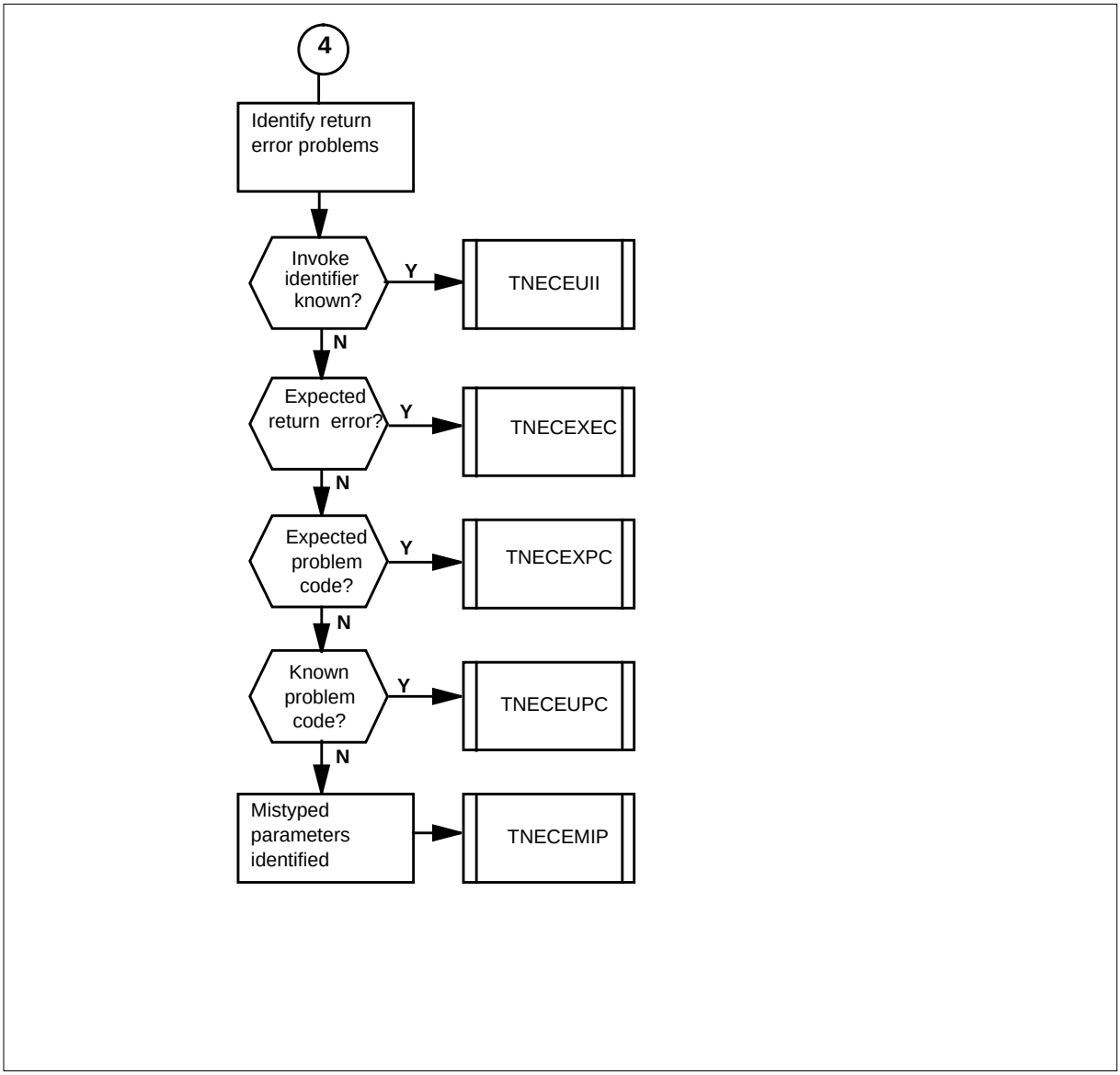
OM group TCN7ERRS (continued)

OM group TCN7ERRS registers - return result problem codes



OM group TCN7ERRS (continued)

OM group TCN7ERRS registers - return error problem codes



Register TNCPEMIC

Total number component portion errors, mistyped component (TNCPEMIC)

Register TNCPEMIC increases when the TCAP detects a component portion error with the general problem code Mistyped Component.

Register TNCPEMIC release history

Register TNCPEMIC was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNCPESCP

Total number component portion errors, badly structured component portion (TNCPESCP)

Register TNCPESCP increases when the TCAP detects a component portion error with the general problem code Badly Structured Component Portion.

Register TNCPESCP release history

Register TNCPESCP was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNCPEUCT

Total number component portion errors, unrecognized component type (TNCPEUCT)

Register TNCPEUCT increases when the TCAP detects a component portion error with the general problem code Unrecognized Component.

Register TNCPEUCT release history

Register TNCPEUCT was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNECEMIP

Total number return error component errors, mistyped parameter (TNECEMIP)

OM group TCN7ERRS (continued)

Register TNECEMIP increases when the TCAP detects a component portion error with the return error problem code Mistyped Parameter.

Register TNECEMIP release history

Register TNECEMIP was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNECEUII

Total number return error component errors, unrecognized invoke identifier (TNECEUII)

Register TNECEUII increases when the TCAP detects a component portion error with the return error problem code Unrecognized Invoke Identifier.

Register TNECEUII release history

Register TNECEUII was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNECEUPC

Total number return error component errors, unrecognized problem code (TNECEUPC)

Register TNECEUPC increases when the TCAP detects a component portion error with the return error problem code Unrecognized Problem Code.

Register TNECEUPC release history

Register TNECEUPC was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNECEXEC

Total number return error component errors, unexpected return error component (TNECEXEC)

Register TNECEXEC increases when the TCAP detects a component portion error with the return error problem code Unexpected Return Error Component.

Register TNECEXEC release history

Register TNECEXEC was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNECEXPC

Total number return error component errors, unexpected problem code (TNECEXPC)

Register TNECEXPC increases when the TCAP detects a component portion error with the return error problem code Unexpected Problem Code.

Register TNECEXPC release history

Register TNECEXPC was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNICEDII

Total number invoke component errors, duplicate invoke identifier (TNICEDII)

Register TNICEDII increases when the TCAP detects a component portion error with the invoke problem code Duplicate Invoke Identifier.

Register TNICEDII release history

Register TNICEDII was introduced in BCS34.

OM group TCN7ERRS (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNICELRU

Total number invoke component errors, link response unexpected (TNICELRU)

Register TNICELRU increases when the TCAP detects a component portion error with the invoke problem code Link Response Unexpected.

Register TNICELRU release history

Register TNICELRU was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNICEMIP

Total number invoke component errors, mistyped parameter (TNICEMIP)

Register TNICEMIP increases when the TCAP detects a component portion error with the invoke problem code Mistyped Parameter.

Register TNICEMIP release history

Register TNICEMIP was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNICERLM

Total number invoke component errors, resource limit (TNICERLM)

Register TNICERLM increases when the TCAP detects a component portion error with the invoke problem code Resource Limit.

Register TNICERLM release history

Register TNICERLM was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNICERLS

Total number invoke component errors, initiating release (TNICERLS)

Register TNICERLS increases when the TCAP detects a component portion error with the invoke problem code Initiating Release.

Register TNICERLS release history

Register TNICERLS was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNICEUCI

Total number invoke component errors, unrecognized correlation identifier (TNICEUCI)

Register TNICEUCI increases when the TCAP detects a component portion error with the invoke problem code Unrecognized Correlation Identifier.

Register TNICEUCI release history

Register TNICEUCI was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNICEULO

Total number invoke component errors, unexpected linked operation (TNICEULO)

OM group TCN7ERRS (continued)

Register TNICEULO increases when the TCAP detects a component portion error with the invoke problem code Unexpected Linked Operation.

Register TNICEULO release history

Register TNICEULO was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNICEUOC

Total number invoke component errors, unrecognized operation code (TNICEUOC)

Register TNICEUOC increases when the TCAP detects a component portion error with the invoke problem code Unrecognized Operation Code.

Register TNICEUOC release history

Register TNICEUOC was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNRCEMIP

Total number return result component errors, mistyped parameter (TNRCEMIP)

Register TNRCEMIP increases when the TCAP detects a component portion error with the return result problem code Mistyped Parameter.

Register TNRCEMIP release history

Register TNRCEMIP was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNRCEUII

Total number return result component errors, unrecognized invoke identifier (TNRCEUII)

Register TNRCEUII increases when the TCAP detects a component portion error with the return result problem code Unrecognized Invoke Identifier.

Register TNRCEUII release history

Register TNRCEUII was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNRCEXRR

Total number return result component errors, unexpected return result (TNRCEXRR)

Register TNRCEXRR increases when the TCAP detects a component portion error with the return result problem code Unexpected Return Result.

Register TNRCEXRR release history

Register TNRCEXRR was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNTPEITP

Total number transaction portion error, incorrect transaction part (TNTPEITP)

Register TNTPEITP increases when a transaction portion that is not correct causes a TCAP transaction portion error.

Register TNTPEITP release history

Register TNTPEITP was introduced in BCS34.

Associated registers

There are no associated registers.

OM group TCN7ERRS (continued)

Associated logs

The system generates TCAP 199 when a transaction portion that is not correct causes a TCAP transaction portion error.

Register TNTPERLM

Total number transaction portion errors, resource limitation (TNTPERLM)

Register TNTPERLM increases when a resource limit causes TCAP transaction portion error.

Register TNTPERLM release history

Register TNTPERLM was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TNTPESTP

Total number transaction portion errors, badly structured transaction portion (TNTPEUPT)

Register TNTPEUPT increases when a badly structured transaction portion causes a TCAP transaction portion error.

Register TNTPESTP release history

Register TNTPESTP was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

The system generates TCAP199 when a badly structured transaction portion causes a TCAP transaction portion error.

Register TNTPEUPT

Total number transaction portion error, unrecognized package type (TNTPEUPT)

Register TNTPEUPT increases when an unrecognized package type causes a TCAP transaction portion error.

Register TNTPEUPT release history

Register TNTPEUPT was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

The system generates log TCAP199 when an unrecognized package type causes a TCAP transaction portion error.

Register TNTPEUTI

Total number transaction portion errors, unrecognized transaction identification (TNTPEUTI)

Register TNTPEUTI increases when an unrecognized transaction identification causes a TCAP transaction portion error.

Register TNTPEUTI release history

Register TNTPEUTI was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TCN7USAG

OM description

Transaction capability application part CCS7 use (TCN7USAG)

The OM group TCN7USAG provides use measurements for the transaction capabilities application part (TCAP). The TCAP functions in the CCITT common channel signaling 7 (CCS7) protocol.

Release history

The OM group TCN7USAG was introduced in BCS34.

Registers

The OM group TCN7USAG registers appears on the MAP terminal as follows:

```
TNMSGOUT    TNMSGOU2    TNMSGIN     TNMSGIN2
TNUNIDIR    TNUNIDI2    TNBEGIN     TNBEGIN2
TNEND       TNEND2      TNCONTIN    TNCONTI2
TNABORT     TNABORT2    TNINVK      TNINVK2
TNRSLTL     TNRSLTL2    TNRSLTNL    TNRSLTN2
TNRTERR     TNRTERR2    TNREJECT    TNREJEC2
```

Group structure

OM group TCN7USAG provides one tuple for each TCAP application.

Key field:
C7_SUBSYSTEM_NAME

Info field:
There is no info field.

Associated OM groups

TCN7ERRS

OM group TCN7USAG (continued)

Associated functional groups

The following functional group associates with OM group TCN7USAG:

- CCITT SCCP (011) and TCAP

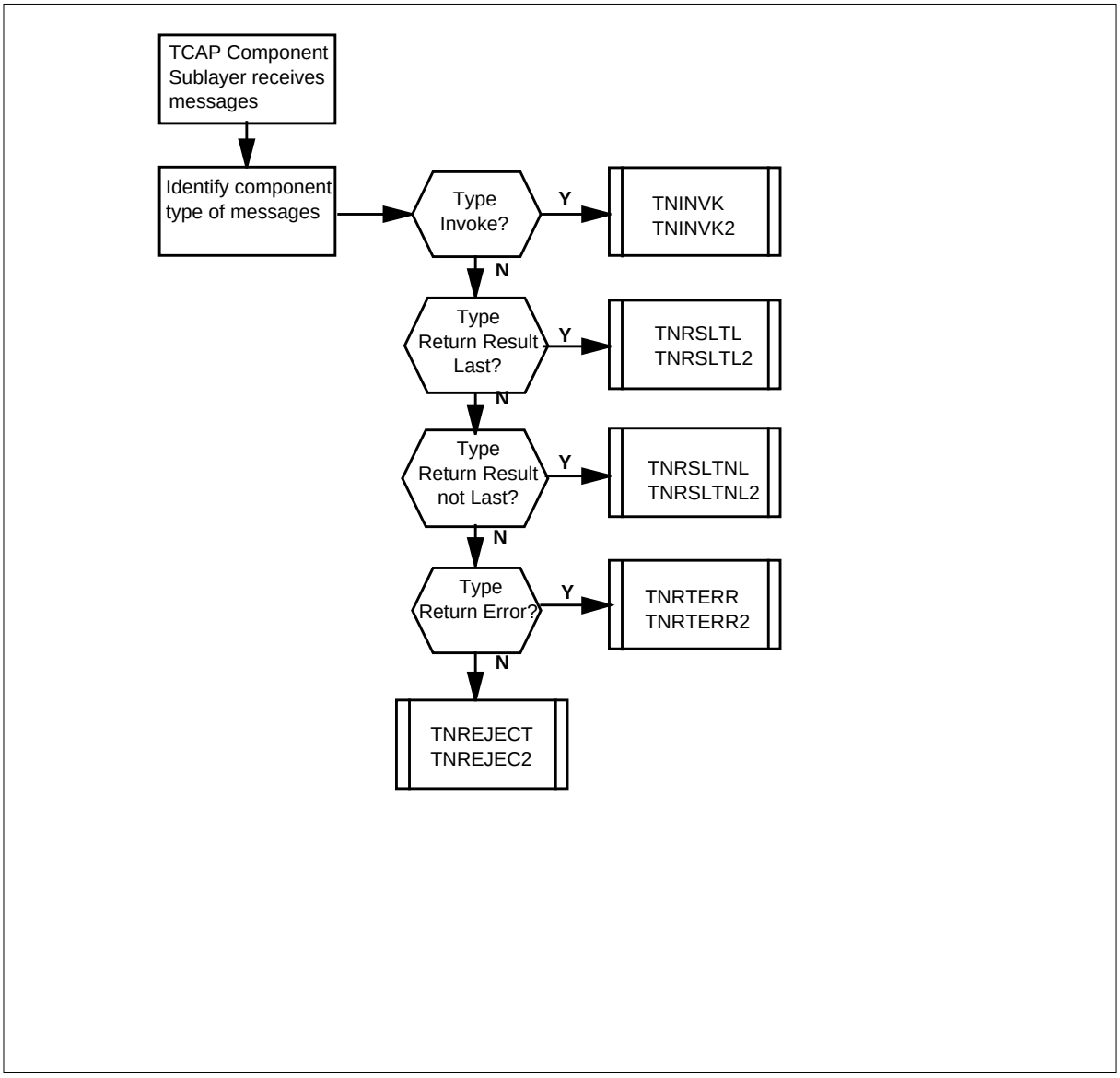
Associated functionality codes

The associated functionality codes for OM group TCN7USAG appear in the following table.

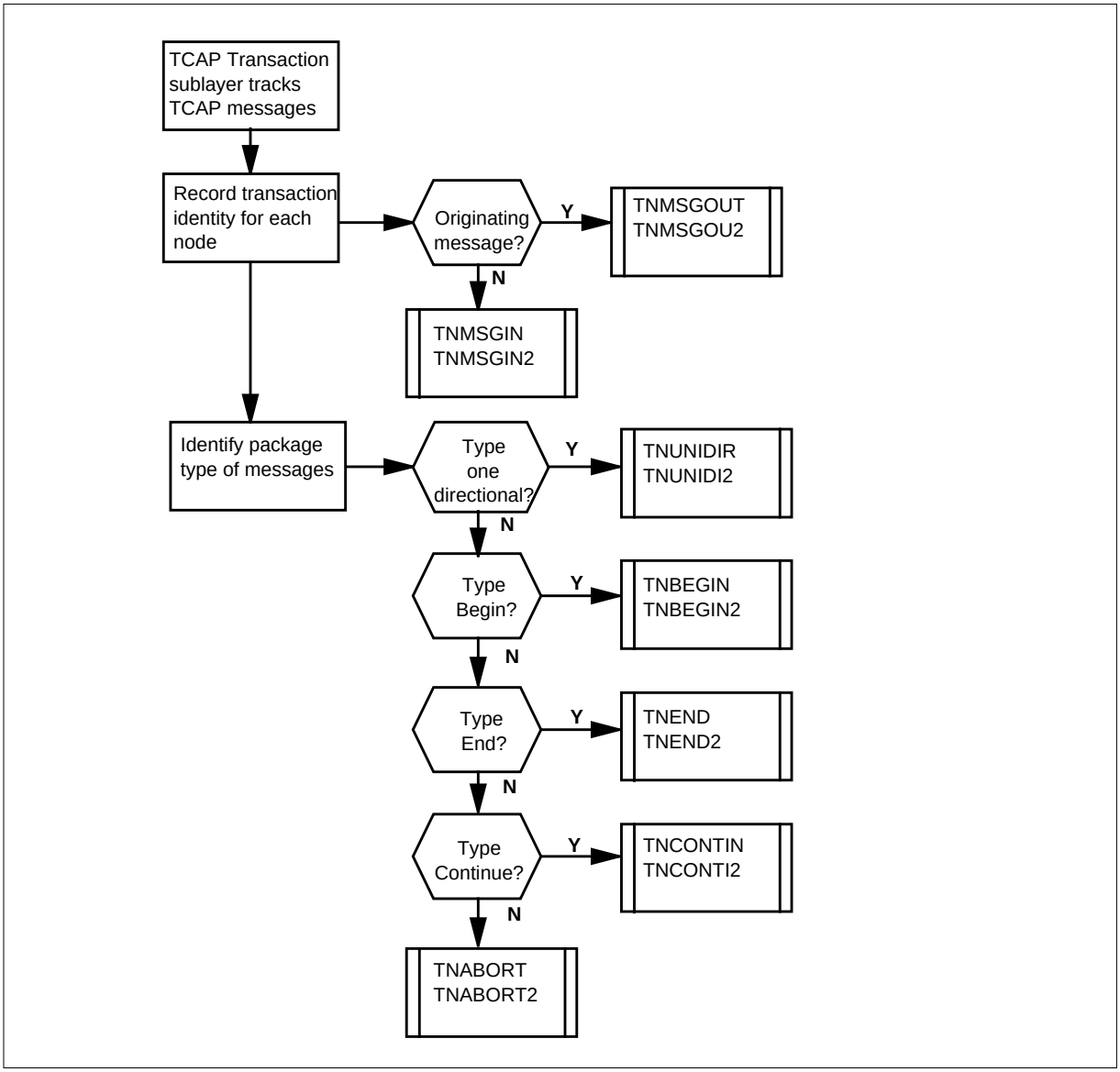
Functionality	Code
CCS7 Base	TEL00008

OM group TCN7USAG (continued)

OM group TCN7USAG registers



OM group TCN7USAG registers (continued)



Register TNABORT

Total number type abort (TNABORT)

Register TNABORT increases when an incoming or outgoing TCAP message is of package type Abort. A package type Abort terminates a transaction in conditions that are not normal.

Register TNABORT release history

Register TNABORT was introduced in BCS34.

OM group TCN7USAG (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TNABORT2

Register TNBEGIN

Total number type begin (TNBEGIN)

Register TNBEGIN increases when an incoming or outgoing TCAP message is of package type Begin. The package type Begin initiates a transaction with a remote node.

Register TNBEGIN release history

Register TNBEGIN was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TNBEGIN2

Register TNCONTIN

Total number type continue (TNCONTIN)

Register TNCONTIN increases when an incoming or outgoing TCAP message is of package type Continue. The package type Continue maintains an existing transaction.

Register TNCONTIN release history

Register TNCONTIN was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TNCONTI2

Register TNEND

Total number type end (TNEND)

Register TNEND increases when an incoming or outgoing TCAP message is of package type End. The package type End terminates a transaction under normal conditions.

Register TNEND release history

Register TNEND was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TNEND2

Register TNINVK

Total number invoke (TNINVK)

Register TNINVK increases when an incoming or outgoing TCAP message is of component type Invoke. The package type Invoke is a request by a remote user.

Register TNINVK release history

Register TNINVK was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TNINVK2

Register TNMSGIN

Total number messages in (TNMSGIN)

OM group TCN7USAG (continued)

Register TNMSGIN increases for each CCS7 node, each time a TCAP message terminates at that particular node.

Register TNMSGIN release history

Register TNMSGIN was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TNMSGIN2

Register TNMSGOUT

Total number messages out (TNMSGOUT)

Register TNMSGOUT increases for each CCS7 node, when a TCAP message originates from that particular node.

Register TNMSGOUT release history

Register TNMSGOUT was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TNMSGOU2

Register TNREJECT

Total number reject (TNREJECT)

Register TNREJECT increases when an incoming or outgoing TCAP message is of component type Reject. A component type Reject indicates corrupt data, out of sequence data, or data not understood. This message includes problem codes that TCAP defines, and parameters that the user can define.

Register TNREJECT release history

Register TNREJECT was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TNREJEC2

Register TNRSLTL

Total number return result last (TNRSLTL)

Register TNRSLTL increases when an incoming or outgoing TCAP message is of component type Return Result Last. The component type Return Result Last indicates that the associated transaction was successful. This message also contains a response, or the last segment of a longer response.

Register TNRSLTL release history

Register TNRSLTL was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TNRSLTL2

Register TNRSLTNL

Total number return result not last (TNRSLTNL)

Register TNRSLTNL increases when an incoming or outgoing TCAP message is of component type Return Result Not Last. The component type Return Result Not Last indicates that the associated transaction was successful. This message also contains a segment of a response that is longer than the allowed message length.

Register TNRSLTNL release history

Register TNRSLTNL was introduced in BCS34.

Associated registers

There are no associated registers.

OM group TCN7USAG (continued)

Associated logs

There are no associated logs.

Extension registers

TRSLTN2

Register TNRTERR

Total number return error (TNRTERR)

Register TNRTERR increases when an incoming or outgoing TCAP message is of component type Return Error. The component type Return Error indicates that the associated request was not complete. This message includes error codes and parameters that the user defines.

Register TNRTERR release history

Register TNRTERR was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TNRTERR2

Register TNUNIDIR

Total number one directional (TNUNIDIR)

Register TNUNDIR increases when an incoming or outgoing TCAP message is of package type one directional. The package type one directional indicates that this message is a one-way transmission.

Register TNUNIDIR release history

Register TNUNIDIR was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TCN7USAG (end)

Extension registers

TNUNIDI2

OM group TCW

OM description

Talking Call Waiting

The TCW OM group provides information on the use of the TCW functionality. This group contains registers to measure specific occurences during a TCW session, either in normal or error conditions.

Release history

NA012 introduced OM group TCW.

Registers

OM group TCW registers display on the MAP terminal as follows.

```
>omshow tcw active
TCW

CLASS:      ACTIVE
START:1999/06/04 12:15:00 WED;  STOP: 1999/06/04 12:22:59
WED:
SLOWSAMPLES:   5;   FASTSAMPLES:  48;

       TCWATT     TCWFLSH    TCSCON    TCWDNERR
      TCWABDN       TCWT1     TCWT2

0          2           2         1         0
          0            0         0
```

Group structure

OM group TCW

Key field:
none

Info field:
none

Related OM groups

The existing CWT OMs (OM group CALLWAIT) are not impacted by TCW and are pegged normally.

The CWTTATT register of the CALLWAIT OM group will be pegged whenever the call waiting feature is invoked on a call whether TCW is activated or not.

Related functional groups

None

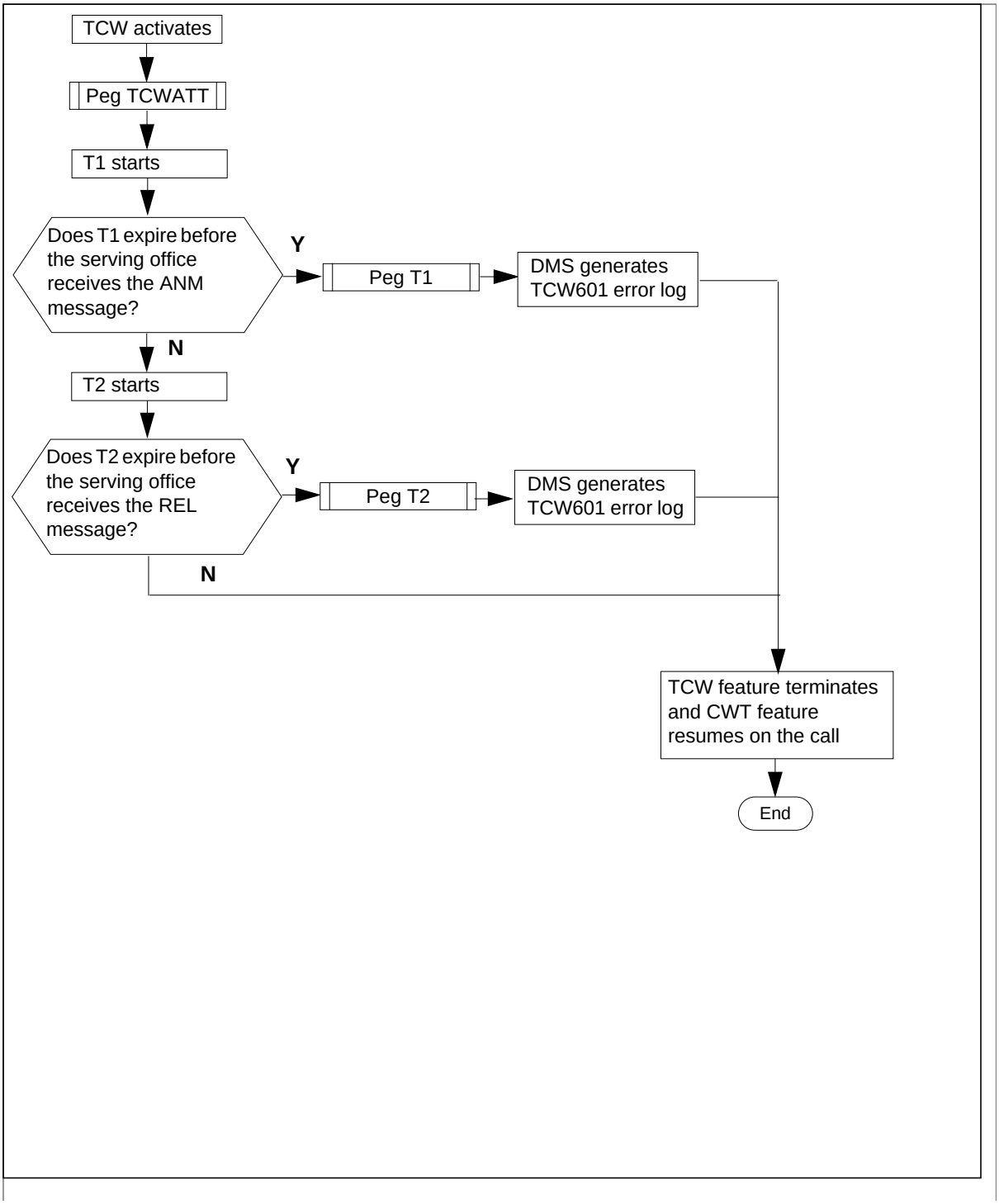
Related functionality codes

The table that follows lists the functionality name and codes related to OM group TCW.

Functionality	Code
Res CW Talking	RES00091

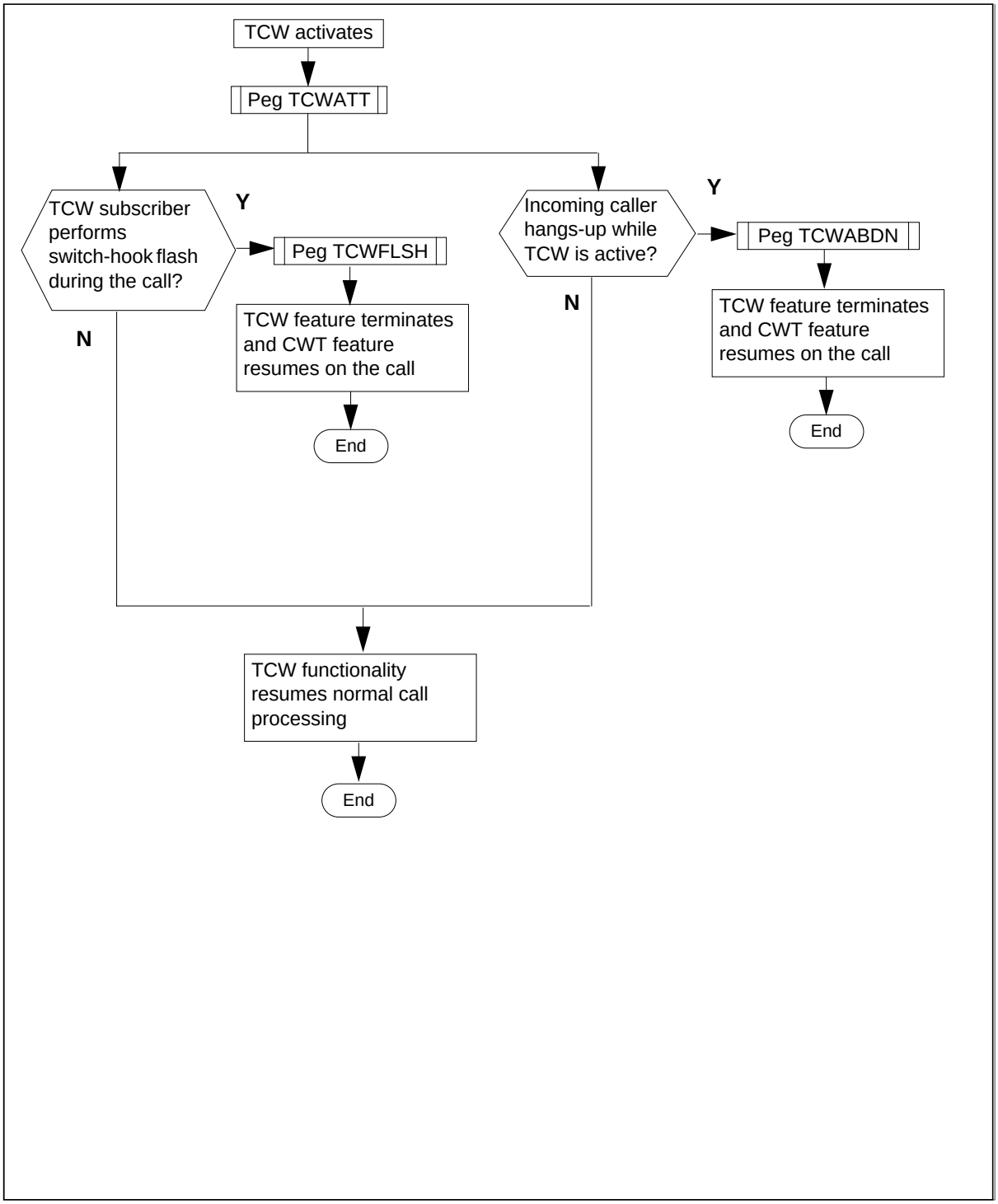
OM group TCW (continued)

OM group TCW registers for timer events



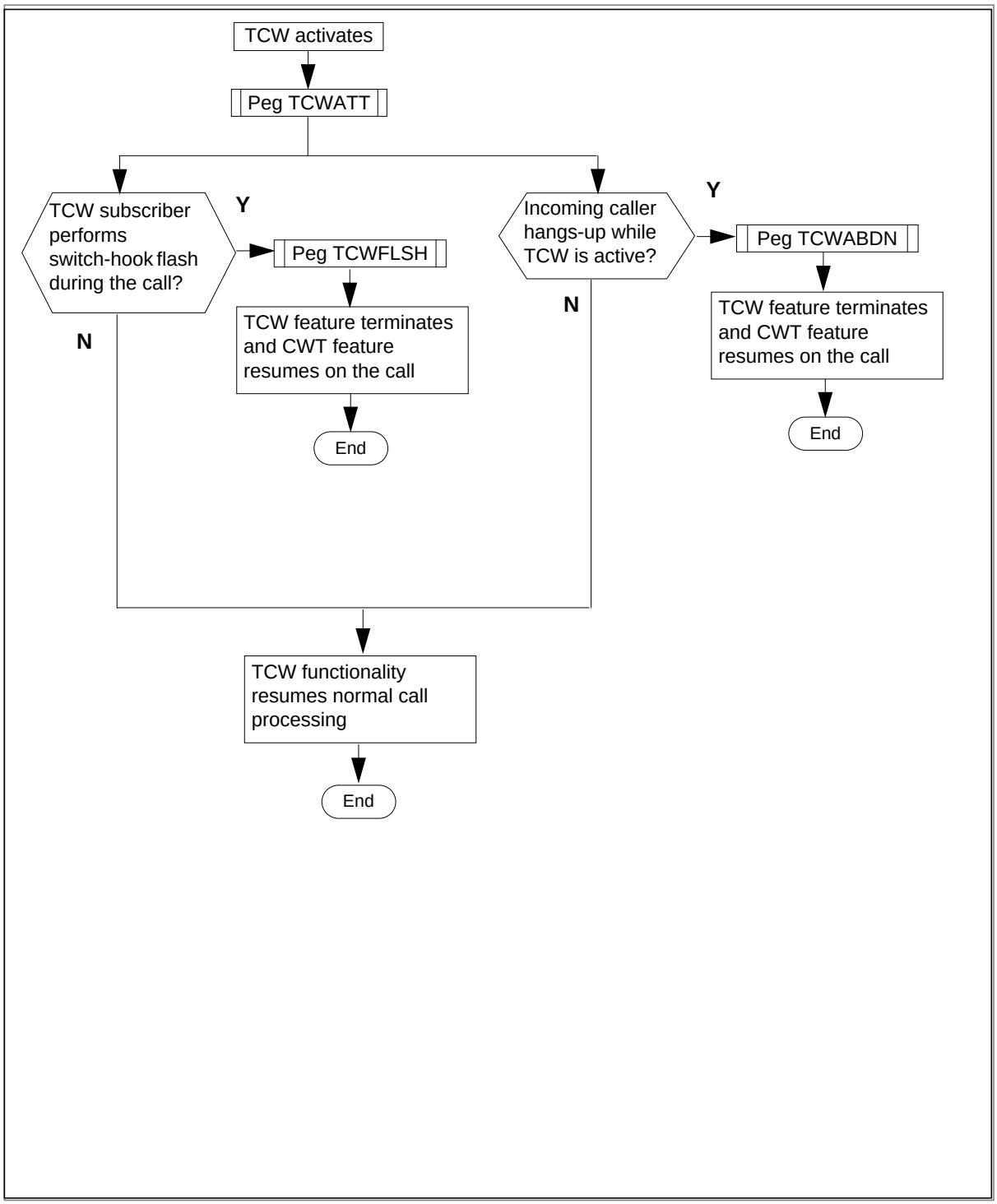
OM group TCW (continued)

OM group TCW registers for end-user events



OM group TCW (continued)

OM group TCW registers for connection events



Register TCWABN

Register Talking Call Waiting Abandon (TCWABDN)

The TCW service increments this register when the calling party hangs up after the TCW feature starts and before the TCW subscriber's terminating office receives the REL message from the SN's switching office.

Register TCWABDN release history

NA012 introduced register TCWABDN.

Related registers

None

Related logs

None

Extension registers

None

Register TCWATT

Register Talking Call Waiting Attempts (TCWATT)

The TCW service is a register which counts the activation attempts of the TCW feature. This register is incremented when an incoming call terminates on a TCW subscriber busy on a regular two party call and the TCW feature is activated.

Register TCWATT release history

NA012 introduced register TCWATT.

Related registers

None

Related logs

None

Extension registers

None

Register TCWCON

Register Talking Call Waiting Connection (TCWCON)

OM group TCW (continued)

The TCW service increments this register when the TCW service connects a TCW subscriber to the Service Node (SN) to hear the alerting tone and audible name announcement.

Register TCWCON release history

NA012 introduced register TCWCON.

Related registers

None

Related logs

None

Extension registers

None

Register TCWDNERR

Register Talking Call Waiting Directory Number Error (TCWDNERR)

The TCW service increments this register when it is unable to complete a call to the SN DN due to an invalid DN, a treatment, or an unsupported agent.

Register TCWDNERR release history

NA012 introduced register TCWDNERR.

Related registers

None

Related logs

None

Extension registers

None

Register TCWFLSH

Register Talking Call Waiting Flash (TCWFLSH)

The TCW service increments this register when TCW has been invoked on the call and the TCW subscriber performs a switch-hook flash.

Register TCWFLSH release history

NA012 introduced register TCWFLSH.

Related registers
None

Related logs
None

Extension registers
None

Register TCWT1
Register Talking Call Waiting Timer 1 (TCWT1)

The TCW service increments this register when the T1 timer expires.

Register TCWT1 release history
NA012 introduced register TCWT1.

Related registers
None

Related logs
None

Extension registers
None

Register TCWT2
Register Talking Call Waiting Timer 2 (TCWT2)

The TCW service increments this register when the T2 timer expires.

Register TCWT2 release history
NA012 introduced register TCWT2.

Related registers
None

Related logs
None

Extension registers
None

OM group TDCLAPD

OM description

TDC LAPD protocol (TDCLAPD)

The OM group TDCLAPD consists of link access processor for a D-channel (LAPD) protocol information on LAPD channels in the D-channel handler (DCH).

TDCLAPD contains 23 registers that count the following:

- initialization calls for a channel
- messages that the system sends or receives with buffers that are too long for layer 1
- layer 1 messages that the system correctly transmits
- buffers that pass through the transmitter
- layer 1 messages with errors in transmission
- layer 1 messages that the system correctly receives
- buffers that pass through the receiver
- messages that the system receives with frame check sequence errors
- messages that the system does not completely receive and aborts
- the number of times the host could not keep up with the chip receiver because there are not enough receive buffers
- layer one messages with errors in reception
- times the system executes a host-initiated link sequence
- times the system executes a peer-initiated link sequence
- times the system executes a link release sequence
- information frames that the system sends
- information frames that the system receives
- information frames that the system transmits again because the system does not receive the information frames correctly
- frame reject information frames that the system receives
- frame reject information frames that the system sends
- frames that the system sends when the receiver is not ready
- frames that the system receives when the receiver is not ready

- L2 link error indication that the system receives from the state machine
- the number of control fields that the system cannot decode

The system keeps the counts in the TOPS line trunk controller for ISDN (LTCI) peripheral module (TMS). The system transfers the counts to the central control before the transfer of active registers to holding registers. The active count is normally zero, and increases before the transfer to holding registers.

Release history

The OM group TDCLAPD was introduced in BCS32.

Registers

The OM group TDCLAPD registers appear on the MAP terminal as follows:

LDINIT	LDBFOV	LDTXGOOD	LDTXBF
LDTXERR	LDRXGOOD	LDRXBF	LDRXCRC
LDRXABRT	LDRXOVRN	LDRXERR	L2HSETUP
L2PSETUP	L2RLSE	L2IFRTX	L2IFRRX
L2RETX	L2REJTX	L2REJRX	L2RNRTX
L2RNRRX	L2MDLERR	L2CTLERR	

Group structure

The OM group TDCLAPD provides one tuple for each key.

Key field:

TDC_OMTYPE consists of the TMS number, the DCH number within the TMS, and the channel type number of the DCH.

Info field:

TDC_OMINFO consists of the peripheral type, the peripheral number, the ISDN service group number, and the TMS data channel type.

Associated OM groups

There are no associated OM groups.

Associated functional groups

The TOPS functional group associates with OM group TDCLAPD.

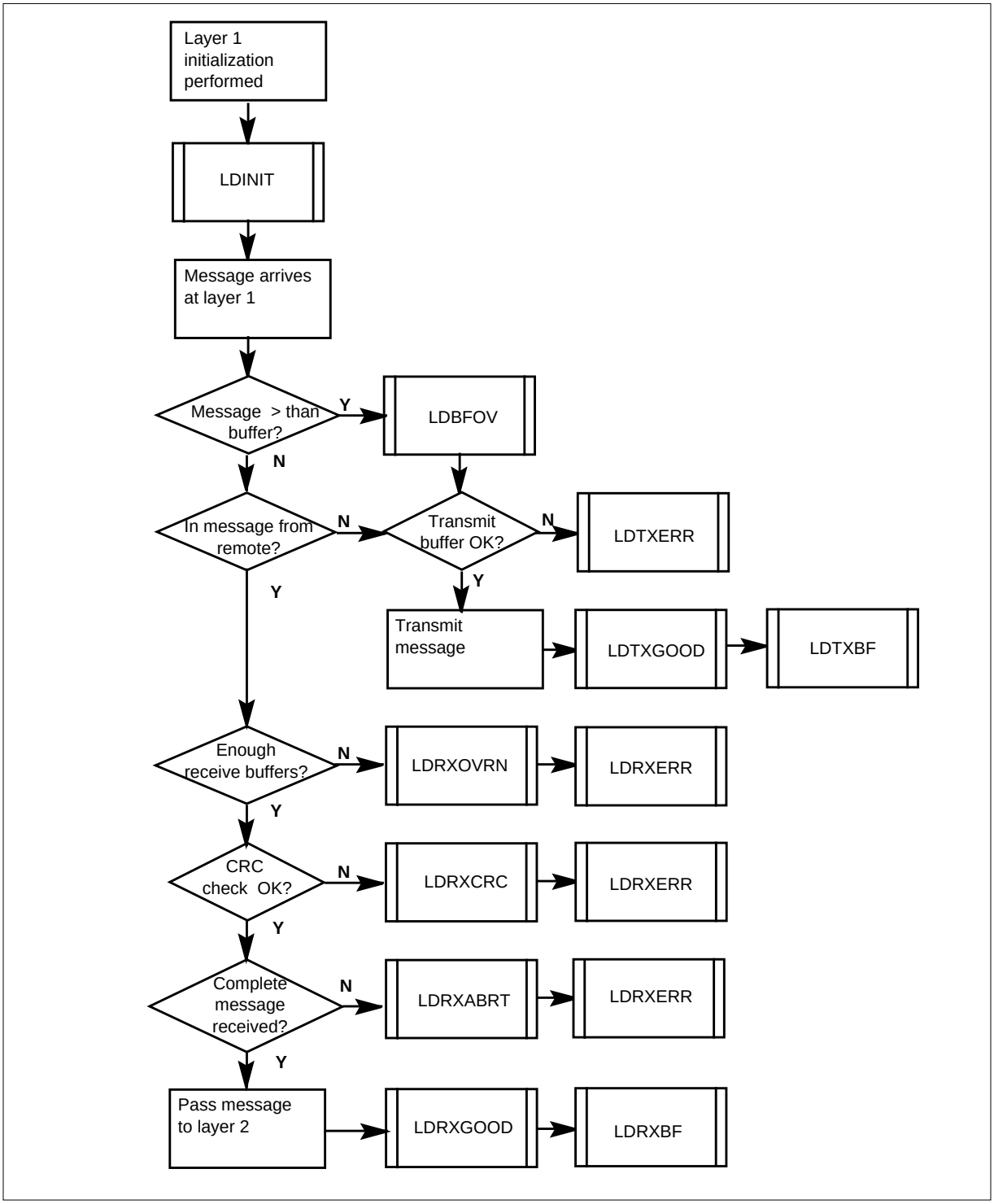
OM group TDCLAPD (continued)

Associated functionality codes

The associated functionality codes for OM group TDCLAPD appear in the following table.

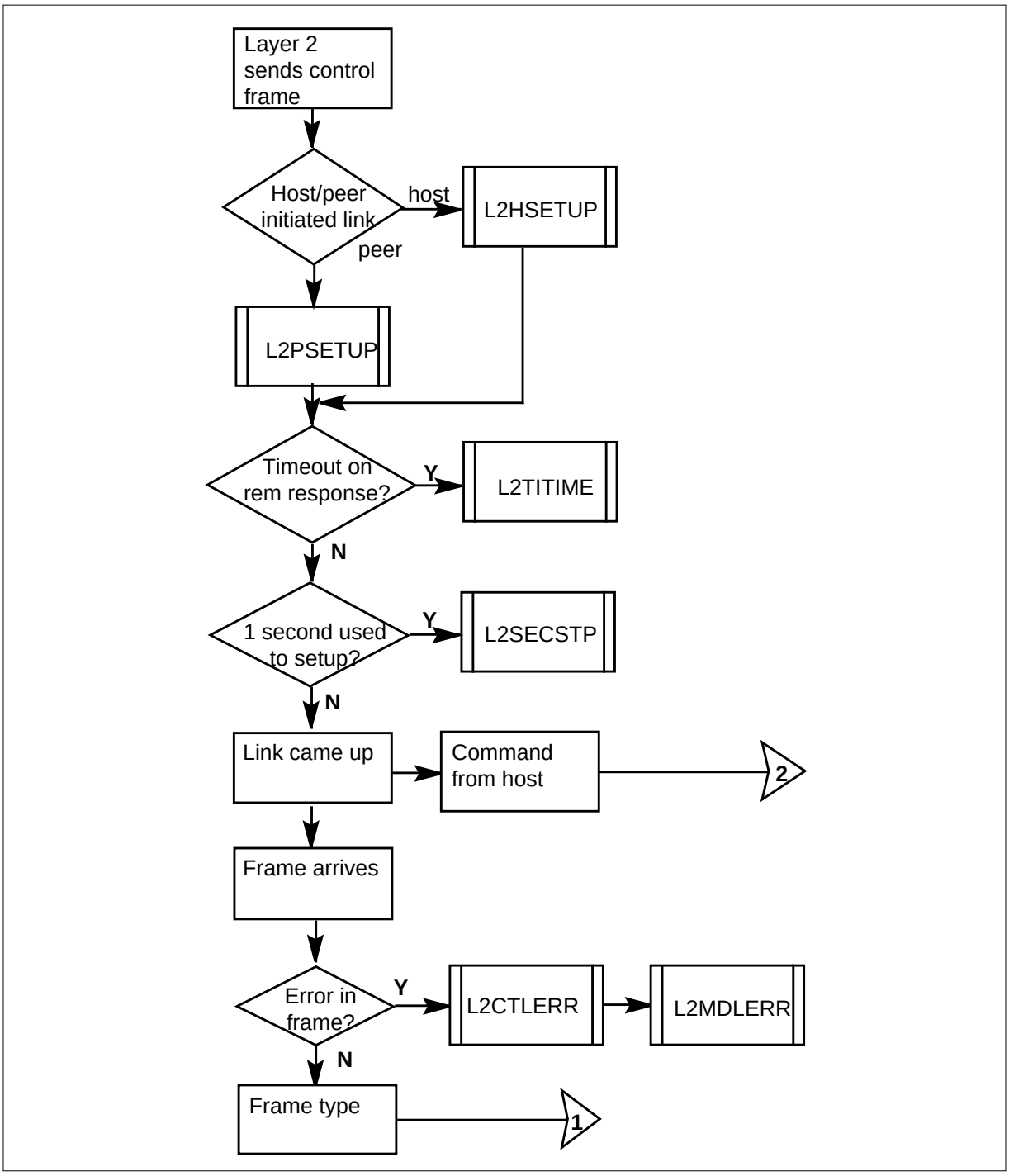
Functionality	Code
TOPS Message Switch	NTXA83AA

OM group TDCLAPD layer 1 registers

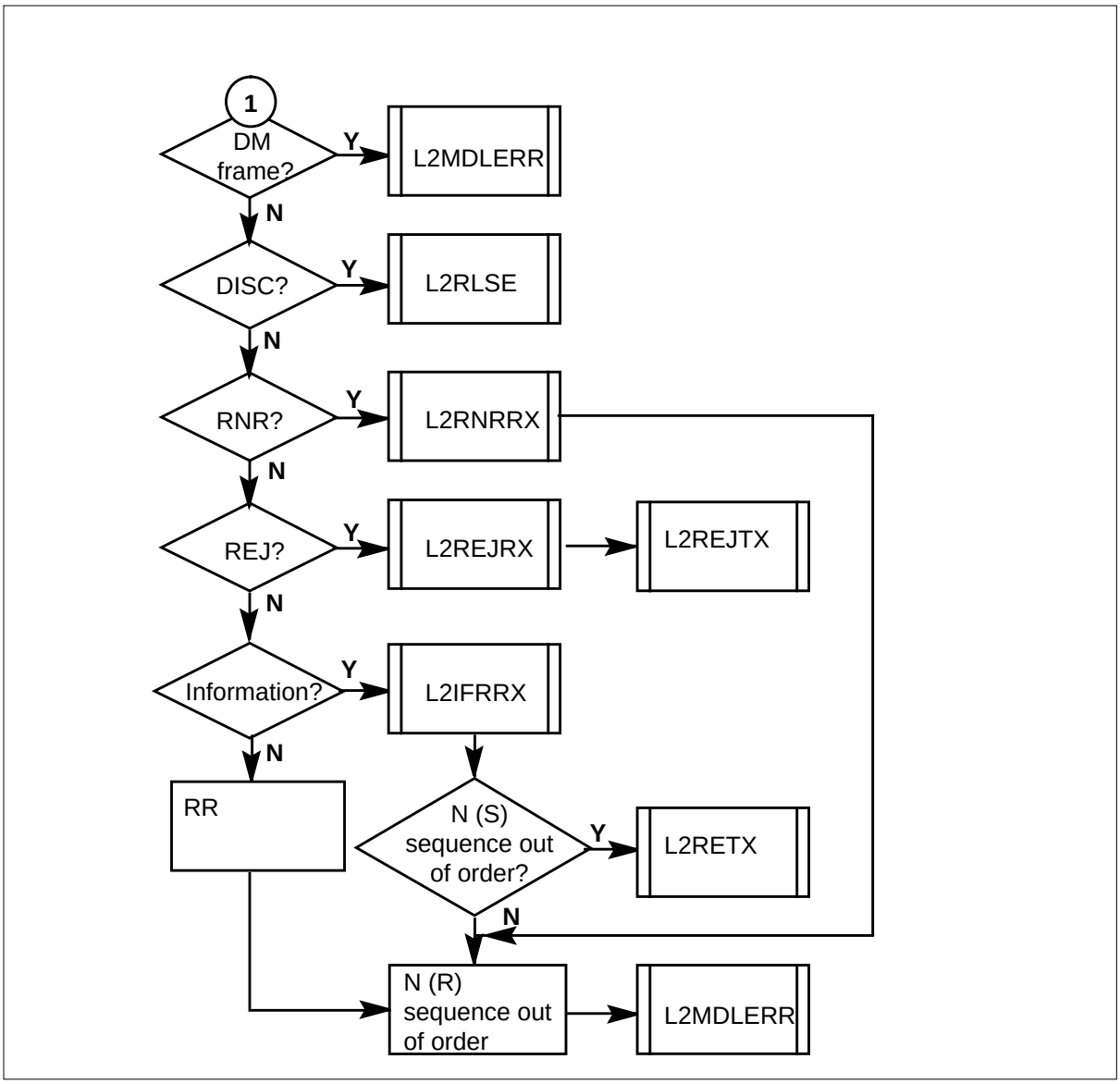


OM group TDCLAPD (continued)

OM group TDCLAPD layer 2 registers

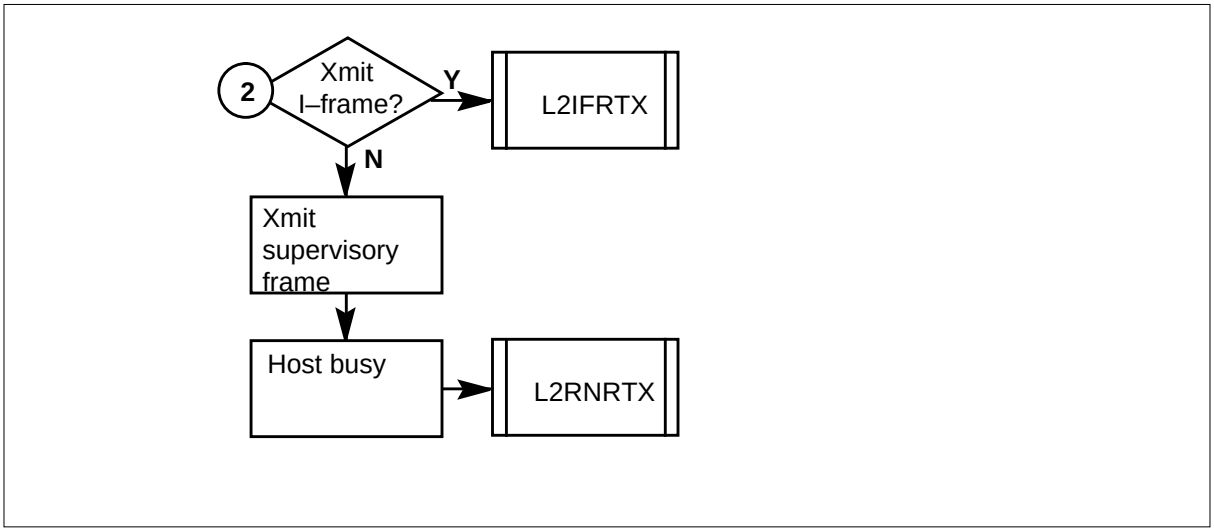


OM group TDCLAPD layer 2 registers (continued)



OM group TDCLAPD (continued)

OM group TDCLAPD layer 2 registers (continued)



Register LDBFOV

Buffer overflow (LDBFOV)

Register LDBFOV counts the messages that the system sends or receives with buffers that are too long for layer 1.

Register LDBFOV release history

Register LDBFOV was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register LDINIT

Initialization calls (LDINIT)

Register LDINIT counts the initialization calls for a channel.

Register LDINIT release history

Register LDINIT was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register LDRXABRT

Messages aborted (LDRXABRT)

Register LDRXABRT counts the messages that the system does not completely receive and aborts.

Register LDRXABRT release history

Register LDRXABRT was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register LDRXBF

Buffers through receiver (LDRXBF)

Register LDRXBF counts the buffers that pass through the receiver.

Register LDRXBF release history

Register LDRXBF was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group TDCLAPD (continued)

Register LDRXCRC

Frame check sequence error (LDRXCRC)

Register LDRXCRC counts the number of messages that the system receives with frame check sequence errors.

Register LDRXCRC release history

Register LDRXCRC was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register LDRXERR

Layer 1 reception errors (LDRXERR)

Register LDRXERR counts layer 1 messages that have errors in reception.

Register LDRXERR release history

Register LDRXERR was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register LDRXGOOD

Layer 1 messages correctly received (LDRXGOOD)

Register LDRXGOOD counts layer 1 messages that the system receives.

Register LDRXGOOD release history

Register LDRXGOOD was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register LDRXOVRN

Receiver overflow (LDRXOVRN)

Register LDRXOVRN counts the times that the host could not keep up with the chip receiver. The host could not keep up because there are not enough receive buffers.

Register LDRXOVRN release history

Register LDRXOVRN was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register LDTXBF

Buffers through transmitter (LDTXBF)

Register LDTXBF counts the buffers that pass through the transmitter.

Register LDTXBF release history

Register LDTXBF was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TDCLAPD (continued)

Extension registers

There are no extension registers.

Register LDTXERR

Layer 1 transmission errors (LDTXERR)

Register LDTXERR counts layer 1 messages with errors in transmission.

Register LDTXERR release history

Register LDTXERR was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register LDTXGOOD

Layer 1 successful transmission (LCTXGOOD)

Register LDTXGOOD counts layer 1 messages that the system transmits.

Register LDTXGOOD release history

Register LDTXGOOD was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register L2CTLERR

Control field error (L2CTLERR)

Register L2CTLERR counts control fields that the system cannot decode.

Register L2CTLERR release history

Register L2CTLERR was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register L2HSETUP

Link host setup sequence executions (L2HSETUP)

Register L2HSETUP counts the times the system executes a host-initiated link sequence.

Register L2HSETUP release history

Register L2HSETUP was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs

Extension registers

There are no extension registers.

Register L2IFRRX

Information frames received (L2IFRRX)

Register L2IFRRX counts the information frames that the system receives.

Register L2IFRRX release history

Register L2IFRRX was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TDCLAPD (continued)

Extension registers

There are no extension registers.

Register L2IFRTX

Information frames transmitted (L2IFRTX)

Register L2IFRTX counts the information frames that the system sends.

Register L2IFRTX release history

Register L2IFRTX was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register L2MDLERR

MDL errors (L2MDLERR)

Register L2MDLERR counts the MDL error indications that the system generates.

Register L2MDLERR release history

Register L2MDLERR was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register L2PSETUP

Link peer setup sequence executions (L2PSETUP)

L2PSETUP counts the times the system executes a peer-initiated link sequence.

Register L2PSETUP release history

Register L2PSETUP was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register L2REJRX

Rejected information frames received (L2REJRX)

Register L2REJRX counts the reject information frames that the system receives.

Register L2REJRX release history

Register L2REJRX was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register L2REJTX

Rejected information frames transmitted (L2REJTX)

Register L2REJTX counts the reject information frames that the system sends.

Register L2REJTX release history

Register L2REJTX was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TDCLAPD (continued)

Extension registers

There are no extension registers.

Register L2RETX

Information frames retransmitted (L2RETX)

Register L2RETX counts the information frames that the system transmits again because the information frames were not received correctly.

Register L2RETX release history

Register L2RETX was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register L2RLSE

Link release sequence execution (L2RLSE)

Register L2RLSE counts the times the system executes the link release sequence.

Register L2RLSE release history

Register L2RLSE was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register L2RNRRX

Receiver not ready receive (L2RNRRX)

Register L2RNRRX counts the frames that the system receives when the peer is congested and not ready to receive.

Register L2RNRRX release history

Register L2RNRRX was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register L2RNRTX

Receiver not ready transmit (L2RNRTX)

Register L2RNRTX counts the frames the system sends when the host is congested and not ready to receive.

Register L2RNRTX release history

Register L2RNRTX was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group TDCPROT

OM description

OM group TDCPROT

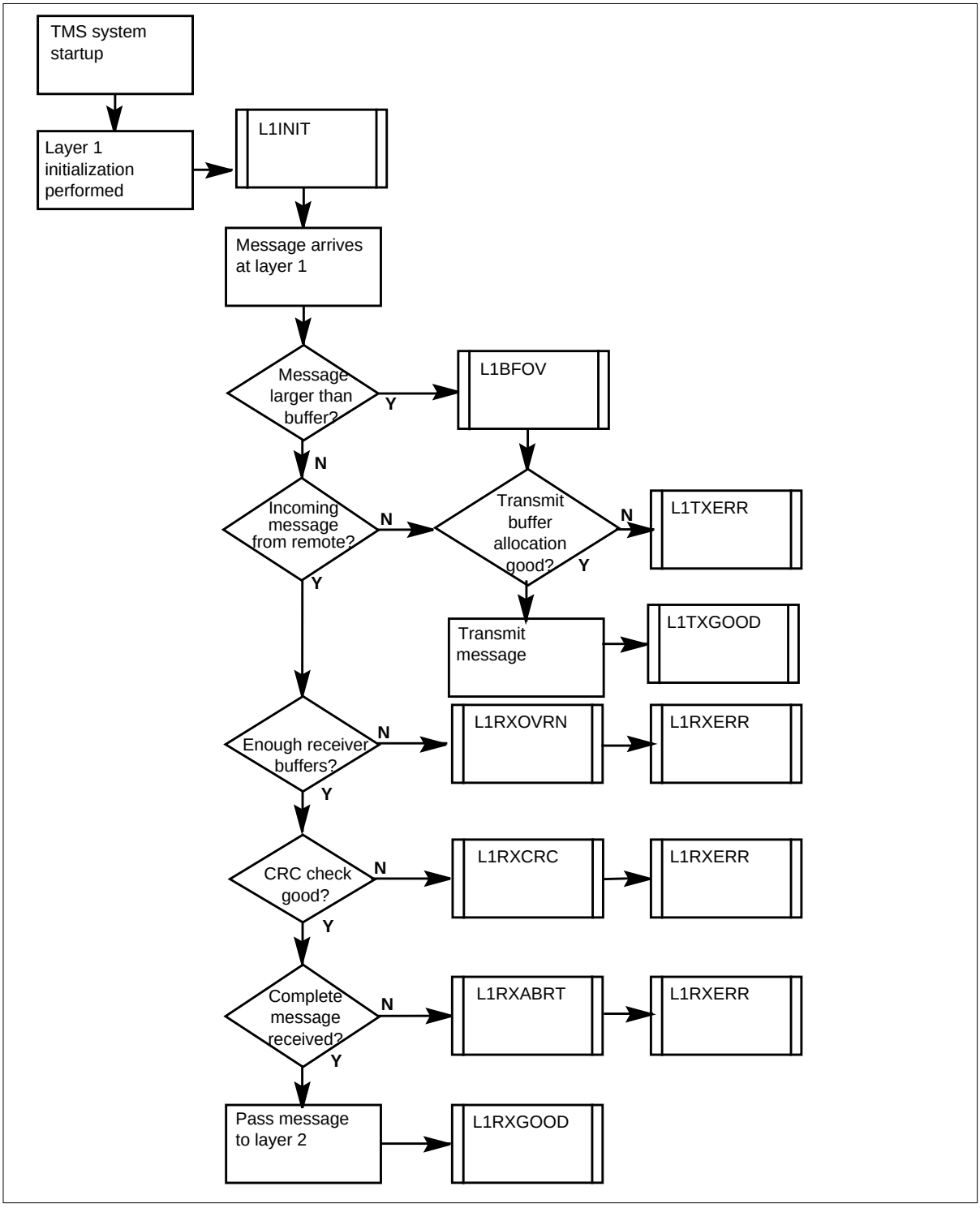
TMS data channel X.25 Protocol (TDCPROT)

The OM group TDCPROT contains information about the X.25 protocol on the TOPS LTCI peripheral module (TMS) data channels in the D-channel handler.

The OM group TDCPROT contains 23 registers that count:

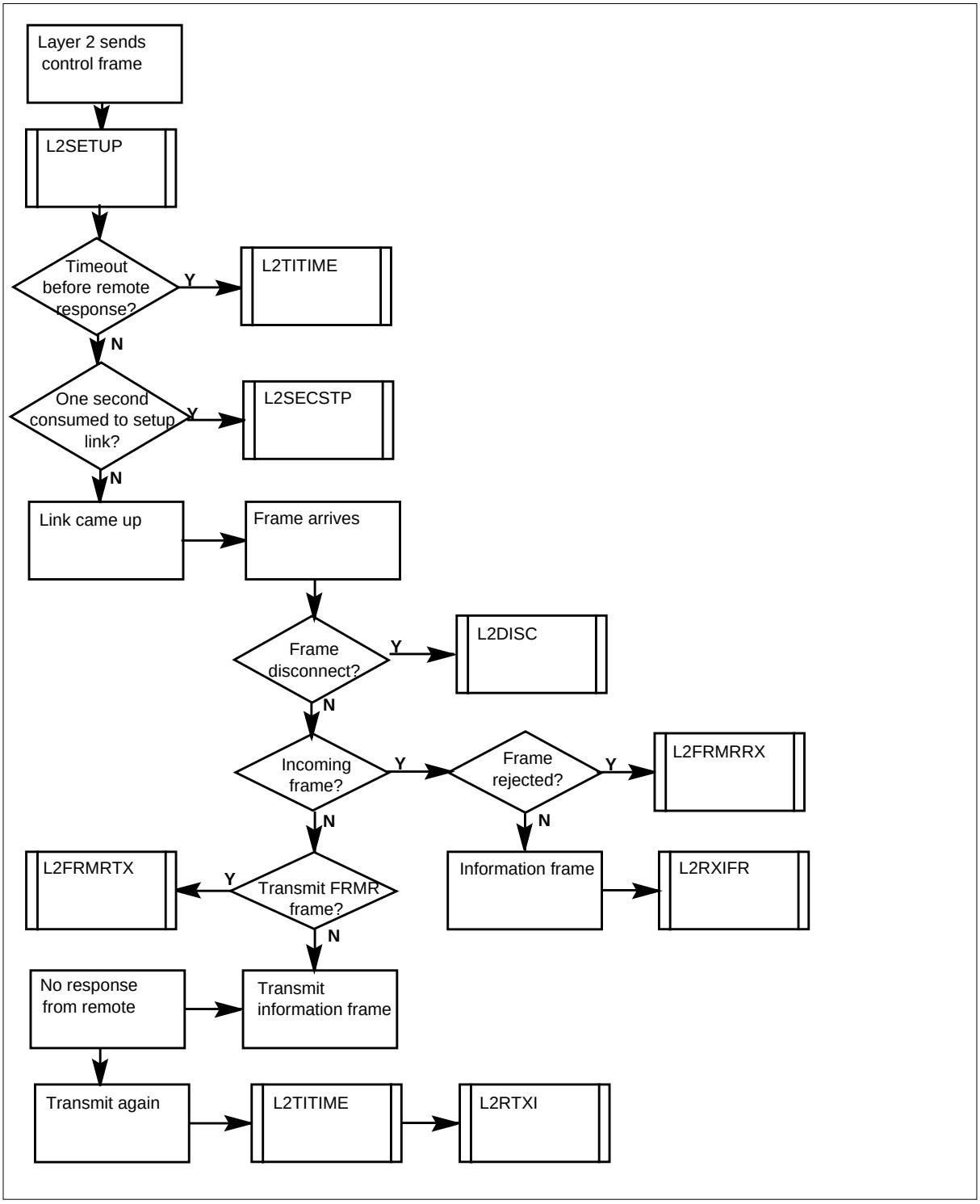
- initialization calls for a channel
- messages the system sends or receives with buffers too long for layer 1
- layer 1 messages the system transmits
- buffers that pass through the transmitter
- layer 1 messages with errors in transmission
- layer 1 messages the system receives
- buffers that pass through the receiver
- messages the system receives with frame check sequence errors
- messages the system partially receives and aborts
- the times the host cannot keep up with the chip receiver because not enough receive buffers are present
- layer 1 messages with errors in reception
- execution of the link set-up sequence
- link disconnect information frames the system sends and receives
- timeouts that occur before a remote responds
- information frames the system sends and receives
- information frames the system transmits again because the frames were not received correctly
- frame rejects information frames the system receives
- frame rejects information frames the system sends
- seconds that pass when the system tries to enable the link
- kbytes of data the system sends and receives
- timeouts that occur before a remote responds to a data packet

TDCPROT— Layer 1 registers

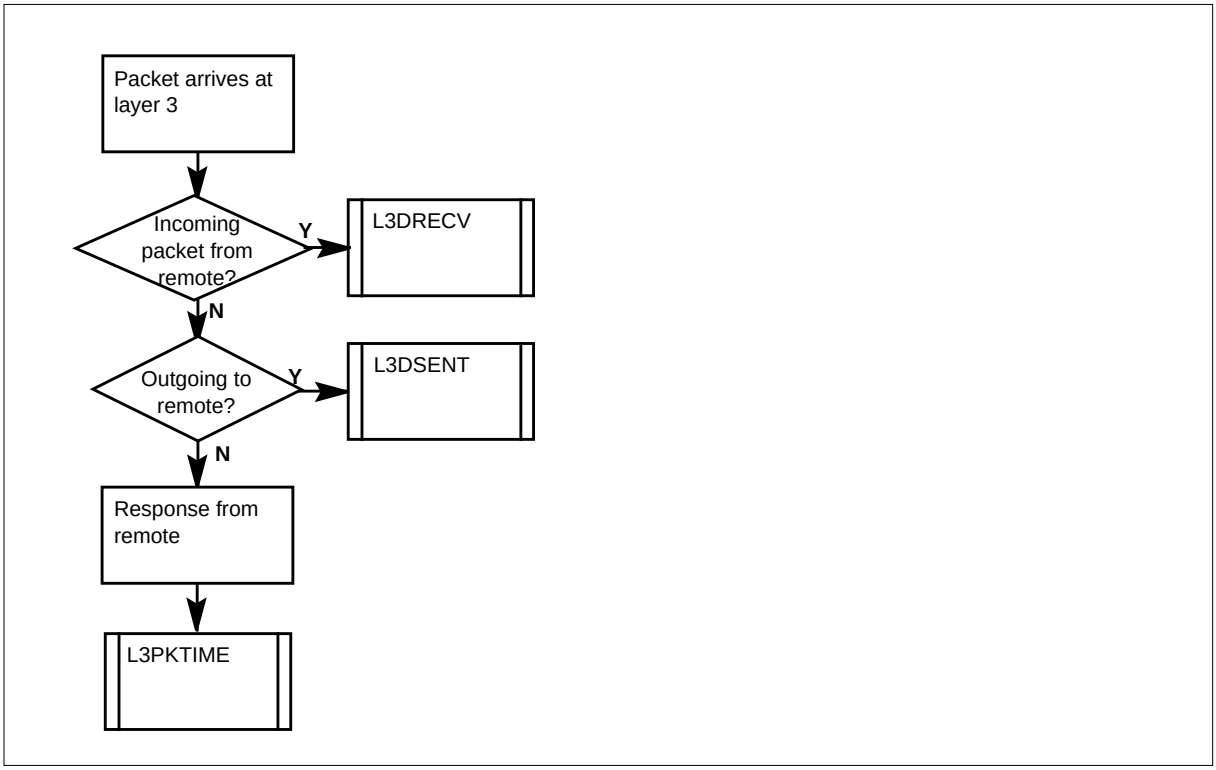


OM group TDCPROT (continued)

TDCPROT— Layer 2 registers



TDCPROT—Layer 3 registers



The system keeps counts in the TOPS LTCI peripheral module (TMS) and transfers the counts to the central control (CC). The system transfers counts before the system transfers active registers to holding registers. The active count is zero most of the time and increases before the transfer to holding registers.

The information contained in the registers of OM group TDCPROT is used to determine the following:

- if a link is down
- if a link makes noise
- the amount of traffic on a link
- potential protocol errors

BCS history

Register TDCPROT was created in BCS30.

OM group TDCPROT (continued)

Registers

The OM group TDCPROT registers appear at the MAP terminal as follows:

- L1INIT
- L1BFOV
- L1TXGOOD
- L1TXBF
- L1TXERR
- L1RXGOOD
- L1RXBF
- L1RXCRC
- L1RXABRT
- L1RXOVRN
- L1RXERR
- L2SETUP
- L2DISC
- L2T1TIME
- L2TXIFR
- L2RXIFR
- L2RTXI
- L2FRMRTX
- L2FRMRRX
- L2SECSTP
- L3DSENT
- L3DRECV
- L3PKTIME

Group structure

Register TDCPROT provides one tuple for each key.

Key field: TDCPROT_OMTYPE consists of the TMS number, the DCH number within the TMS, and the channel type number of the DCH.

Info field: TDCPROT_OMINFO consists of the peripheral type, the peripheral number, the ISDN service group number, and the TMS data channel type.

The value output for a channel type in the OM registers is the total count of all channels of that channel type. For example, for directory help (DA) channels, the system totals counts for DA channels 1 and 3. The total outputs as one tuple.

Associated OM groups

The TDCROUT provides information on calls that the system routes:

- on the TMS data channels in the D-channel handler
- on the TMS data channels in the ISDN signaling processor

Associated products

DMS-200

TOPS

NT feature packages

NTXA83AA TOPS Message Switch

L1BFOV

Buffer overflow (L1BFOV)

Register L1BFOV counts messages the system sends or receives with buffers too long for layer 1.

BCS history

Register L1BFOV was introduced in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L1INIT

Initialization calls

Register L1INIT counts initialization calls for a channel.

BCS history

Register L1INIT was created in BCS30.

Associated registers

There are no associated registers.

OM group TDCPROT (continued)

Associated logs

There are no associated logs.

L1RXABRT

Messages aborted (L1RXABRT)

Register L1RXABRT counts messages that the system partially receives and aborts.

BCS history

Register L1RXABRT was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L1RXBF

Buffers through receiver (LRXBF)

Register L1RXBF increases one time for every 100 buffers that pass through the receiver.

BCS history

Register L1RXBF was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L1RXCRC

Frame check sequence error (L1RXCRC)

Register L1RXCRC counts messages the system receives with frame check sequence errors.

BCS history

Register L1RXCRC was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L1RXERR

Layer 1 reception errors (L1RXERR)

Register L1RXERR counts layer 1 messages that have errors in reception.

BCS history

Register L1RXERR was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L1RXGOOD

Layer 1 messages successfully received (L1RXGOOD)

Register L1RXGOOD increases one time for every 100 layer 1 messages the system receives.

BCS history

Register L1RXGOOD was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs

L1RXOVRN

Receiver overflow (L1RXOVRN)

Register L1RXOVRN counts the times the host cannot keep up with the chip receiver because not enough receive buffers are present.

BCS history

Register L1RXOVRN was created in BCS30.

OM group TDCPROT (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L1TXBF

Buffers through transmitter (L1TXBF)

Register L1TXBF increases one time for every 100 buffers that pass through the transmitter.

BCS history

Register L1TXBF was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L1TXERR

Layer 1 transmission errors (L2TXERR)

Register L1TXERR counts layer 1 messages that have errors in transmission.

BCS history

Register L1TXERR was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L1TXGOOD

Layer 1 successful transmissions (L1TXGOOD)

Register L1TXGOOD increases one time for every 100 layer 1 messages the system transmits.

BCS history

Register L1TXGOOD was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L2DISC

Link disconnects (L2DISC)

Register L2DISC counts link disconnect information frames the system sends and receives.

BCS history

Register L2DISC was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L2FRMRRX

Local protocol violations (FRMR received) (L2FRMRRX)

Register L2FRMRRX counts frame reject (FRMR) information frames the system receives because of a protocol problem.

BCS history

Register L2FRMRRX was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L2FRMRTX

Local protocol violations (FRMR sent) (L2FRMRTX)

Regiser L2FRMRTX counts frame reject (FRMR) information frames the system sends because of a protocol problem.

OM group TDCPROT (continued)

BCS history

Register L2FRMRTX was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L2RTXI

Information frames retransmitted (L2RTXI)

Register L2RTXI counts information frames the system transmits again because the frames were not received correctly.

BCS history

Register L2RTXI was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L2RXIFR

Information frames received (L2RXIFR)

Register L2RXIFR increases one time for every 10 information frames the system receives by layer 2. The system routes the information frames to layer 3.

BCS history

Register L2RXIFR was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L2SECSTP

Seconds enabling the link (L2SECSTP)

Register L2SECSTP counts seconds that pass when the system attempts to enable the link.

BCS history

Register L2SECSTP was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L2SETUP

Link setup sequence executions (L2SETUP)

Register L2SETUP counts the times the system executes the link setup sequence.

BCS history

Register L2SETUP was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L2T1TIME

T1 timeouts (L2T1TIME)

Register L2T1TIME counts timeouts that occur before a remote responds.

BCS history

Register L2TITIME was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L2TXIFR

Information frames sent (L2TXIFR)

OM group TDCPROT (continued)

Register L2TXIFR increases one time for every 10 information frames layer 3 sends to layer 2.

BCS history

Registers L2TXIFR was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L3DRECV

Data received (L3DRECV)

Register L3DRECV counts kbytes of data layer 3 receives from layer 2.

BCS history

Register L3DRECV was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L3DSENT

Data sent (L3DSENT)

Register L3DSENT counts kbytes of data layer 2 sends to layer 3.

BCS history

Register L3DSENT was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

L3PKTIME

Timeouts (L3PKTIME)

Register L3PKTIME counts timeouts that occur before a remote responds to a data packet.

BCS history

Register L3PKTIME was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TDCROUT

OM description

TMS data channel router (TDCROUT)

The OM group TDCROUT provides information on calls the system routes on the TOPS LTCI peripheral module (TMS) data channels. The data channels are in the D-channel handler (DCH) and the ISDN signaling processor (ISP).

The OM group TDCROUT contains 14 registers that count:

- messages the system sends to a TOPS subtending node (TSN) from another subtending node or from an ISP
- messages the system receives from a TOPS subtending node
- messages a TSN sends to an ISP
- messages the system receives from an ISP
- messages the system discards from the D-channel handler because the destination link is not in-service or connected
- messages that wait to transmit
- average delay between messages that enter and leave the D-channel handler
- call processing messages the ISP sends to a TSN
- call processing messages the ISDN signaling processor receives from a TSN
- maintenance messages the ISP sends to a TSN
- maintenance messages the ISP receives from a TSN
- average messages size (including header) in an ISP
- average message size (including header) on the TOPS LTCI peripheral module data channel
- messages the system discards in an ISP

The system keeps register counts in the TMS and transfers the counts to the central control (CC). The transfer to central control takes place before the transfer of active registers to holding registers. The active count is normally zero and increases before the transfer to holding registers.

Release history

Register TDCROUT was introduced in BCS30.

Registers

The OM group TDCROUT registers appear on the MAP terminal as follows:

```
DMSENT  DMRECV  DMISPTX DMISPRX
DMDISC  DAVGQS  DAVGMS  DAVGBM
ICPSENT ICPRECV IMTSENT IMTRECV
IAVGMSG IMDISC
```

Group structure

The OM group TDCROUT provides one tuple for each key.

Key field:
TDCROUT_OMTYPE consists of the TMS number, the DCH number within the TMS, and the channel type number on the DCH.

Info field:
TDCROUT_OMINFO consists of the peripheral type, the peripheral number, the ISDN service group number, and the TDC channel type.

Associated OM groups

The TDCPROT contains information about the X.25 protocol on the TMS data channels in the D-channel handler.

Associated products

DMS-200

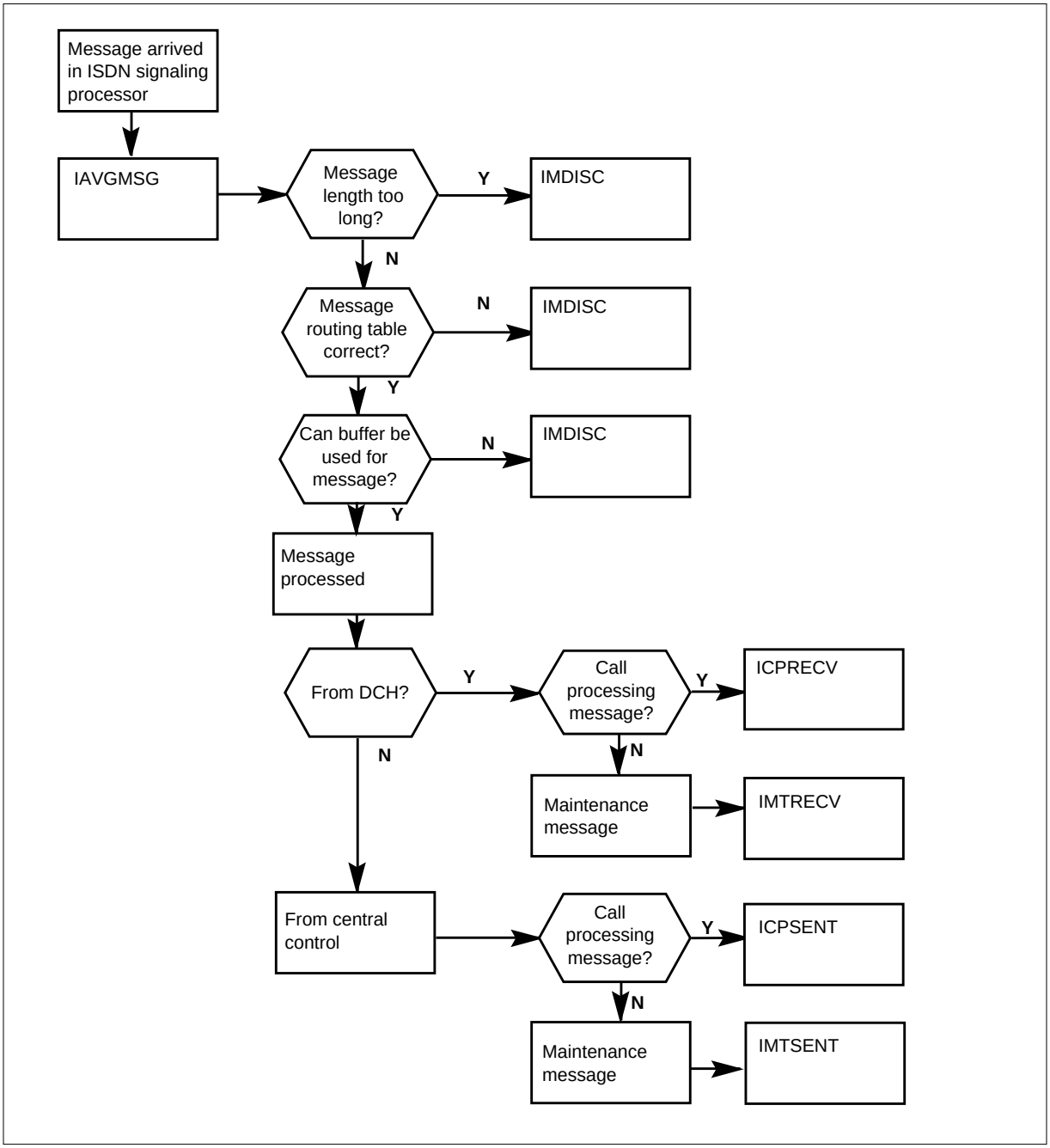
TOPS

NT feature packages

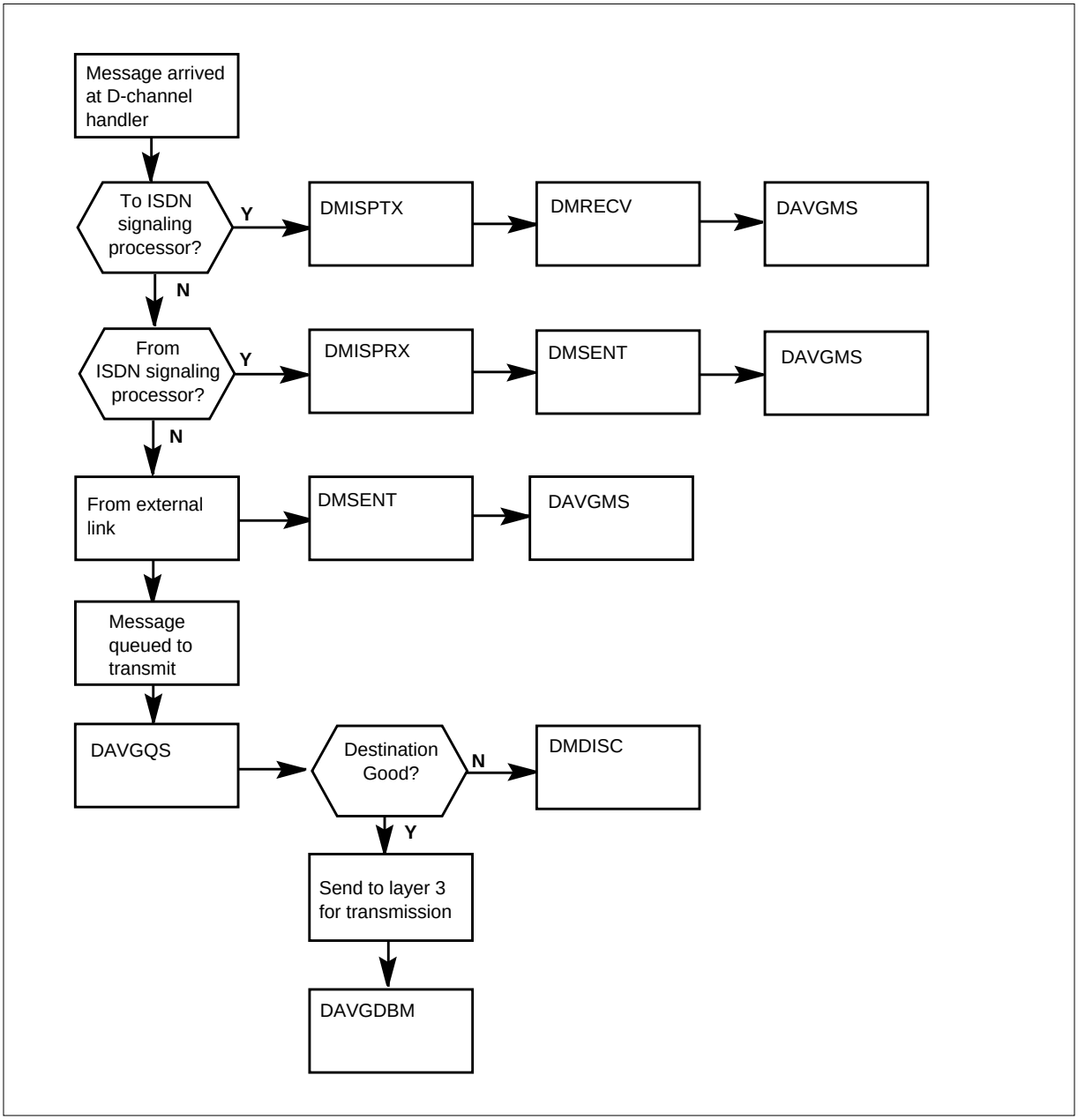
NTXA83AA TOPS Message Switch

OM group TDCROUT (continued)

OM group TDCROUT registers



OM group TDCROUT registers (continued)



The information contained in the registers of OM group TDCROUT can be used to determine the following:

- the amount of call processing and maintenance traffic through the TMS
- the percentage of traffic in a TMS that is call processing, or in maintenance
- the amount of traffic through different types of TSN

OM group TDCROUT (continued)

- total number of call processing messages and maintenance messages to the central control (CC) from different types of TSN
- total number of call processing messages and maintenance messages from the CC to different types of TSN
- the percentage of database traffic through a DCH

Register DAVGDBM

Average delay (DAVGDBM)

Register DAVGDBM records the average delay between messages that enter and leave the D-channel handler.

This register is not active and returns a value of zero to the central control.

Register DAVGDBM release history

Register DAVGDBM was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register DAVGMS

Average message size on channel (DAVGMS)

Register DAVGMS records the average message size (including header) in bytes on the TMS data channel.

Register DAVGMS release history

Register DAVGMS was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register DAVGQS

Message waiting (DAVGQS)

Register DAVGQS counts messages that wait for the system to transmit the messages.

Register DAVGQS release history

Register DAVGQS was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register DMDISC

Messages discarded in DCH (DMDISC)

Register DMDISC counts messages the system discards from the D-channel handler because:

- the destination link is not in service
- the destination link is not connected

Register DMDISC release history

Register DMDISC was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register DMISPRX

Messages received from ISDN signaling processor (DMISPRX)

Register DMISPRX counts messages the system receives from an ISP

Register DMISPRX release history

Register DMISPRX was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TDCROUT (continued)

Register DMISPTX

Messages to ISDN signaling processor (DMISPTX)

Register DMISPTX counts messages a TSN sends to an ISP.

Register DMISPTX release history

Register DMISPTX was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register DMRECV

Messages received (DMRECV)

Register DMRECV counts messages the ISP receives from a TSN.

Register DMRECV release history

Register DMRECV was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register DMSENT

Messages sent (DMSENT)

Register DMSENT counts messages the system sends to a TSN from another subtending node or from an ISP.

Register DMSENT release history

Register DMSENT was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register IAVGMSG

Average message size in ISP (IAVGMSG)

Register IAVGMSG records the average message size (including header) in an ISP.

Register IAVGMSG release history

Register IAVGMSG was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register ICPRECV

Call processing messages received (ICPRECV)

Register ICPRECV counts call processing messages that an ISP receives from a TSN.

Register ICPRECV release history

Register ICPRECV was created in BCS30.

Associated registers

Register ICPSENT counts call processing messages an ISP sends to an TSN.

Total call processing traffic in TMS = ICPRECV = ICPSENT

Associated logs

There are no associated logs

Register ICPSENT

Call processing messages sent (ICPSENT)

Register ICPSENT counts call processing messages the ISP sends to a TSN.

Register ICPSENT release history

Register ICPSENT was created in BCS30.

Associated registers

Register ICPRECV counts call processing messages an ISP receives from a TSN.

OM group TDCROUT (continued)

Total call processing traffic in TMS = ICPSENT = ICPRECV

Associated logs

There are no associated logs.

Register IMDISC

Messages discarded in ISP (IMDISC)

Register IMDISC counts messages the system discards in the ISP for one of the following reasons:

- the message from the DCH is too long
- a route table problem is present
- a buffer is not available to send the message

Register IMDISC release history

Register IMDISC was created in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register IMTRECV

Maintenance messages received (IMTRECV)

Register IMTRECV counts maintenance messages the ISP receives from a TSN.

Register IMTRECV release history

Register IMTRECV was introduced in BCS30.

Associated registers

Register IMTSENT counts maintenance messages the ISP sends to a TSN.

Total maintenance traffic in TMS = IMTRECV = IMTSENT

Associated logs

There are no associated logs.

Register IMTSENT

Maintenance messages sent (IMTSENT)

Register IMTSENT counts maintenance message the ISP sends to a TSN.

Register IMTSENT release history

Register IMTSENT was created in BCS30.

Associated registers

Register IMTRECV counts maintenance messages the ISP receives from a TSN.

Total maintenance traffic in TMS = IMTSENT = IMTRECV

Associated logs

There are no associated logs.

OM group TDR

OM description

TOPS Call Detail Recording

This group counts the number of times that TDR records are padded or truncated. It also counts the number of times OSSAIN custom billing data is lost. Parameters in table TOPTDROP determine which registers in this OM group are pegged.

Release history

OM group TDR was introduced in TOPS11 by feature AF7817 in functionality TOPS/Carrier Interworking, OSB00001..

Registers

The following OM group TDR registers display on the MAP terminal as follows:

```
>omshow tdr active

T DR

CLASS:   ACTIVE
START:1998/08/31 04:00:00 MON; STOP: 1998/08/31 04:58:22
SLOWSAMPLES:          3 ; FASTSAMPLES:          28 ;
    PAD     PAD2             SNLOST           SNLOST2
    TRUNC

0     0      0                0               0
      0
```

Group structure

OM group TDR has one tuple.

Key field:
not applicable

Info field:
The number of times that TDR records are padded or truncated and the number of times OSSAIN custom billing data is lost.

Associated OM groups

OM group TDRFTMPL is used to count the number of times a template is used to format a TDR record.

Associated functional groups

The following functional groups are associated with OM group TDR:

- Operator Services Basic, OSB00001

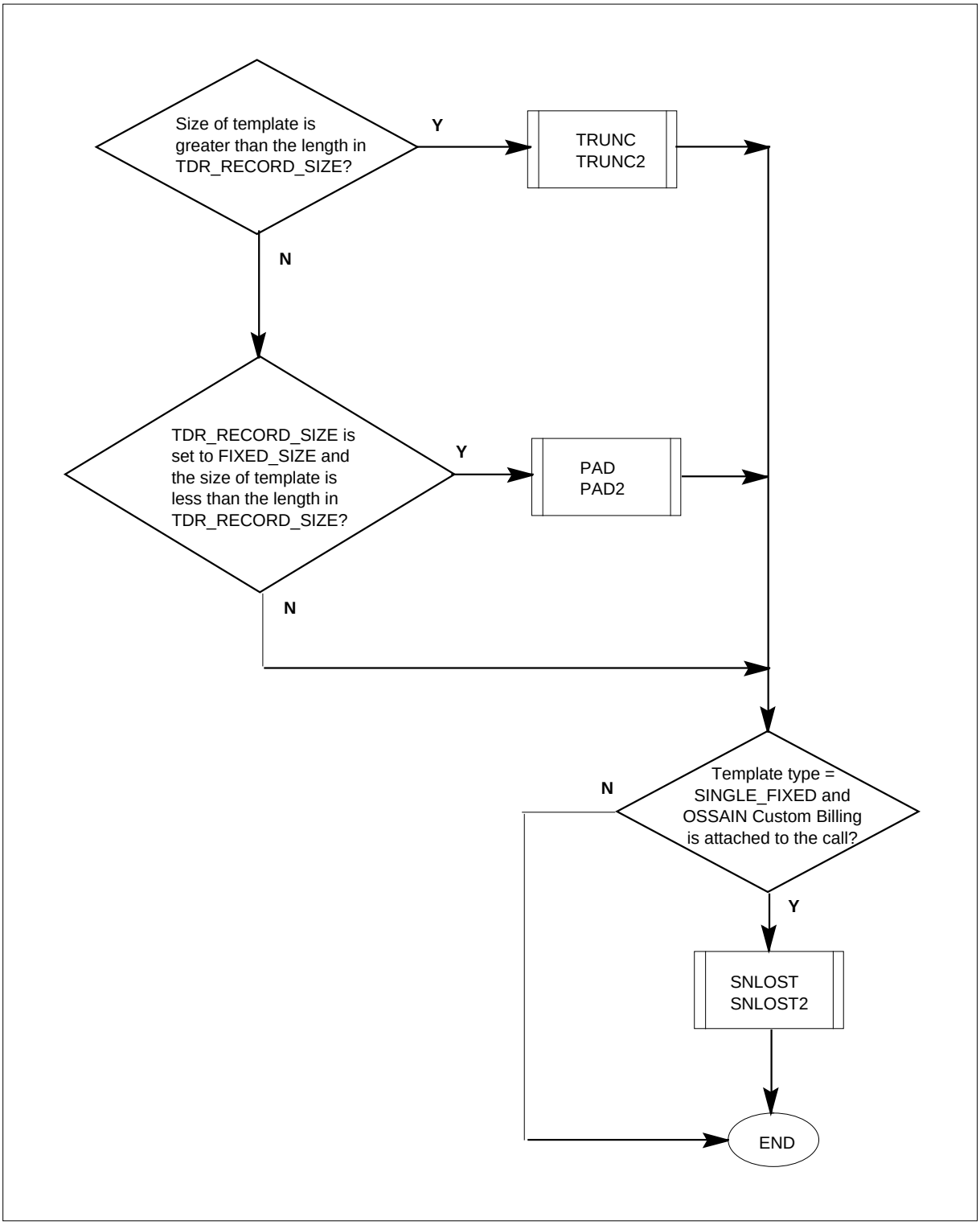
Associated functionality codes

The functionality codes associated with OM group TDR are shown in the following table.

Functionality	Code
TOPS/Carrier Interworking	OSB00001

OM group TDR (continued)

OM group TDR registers



Register PAD

Register TDR records that have been padded

This register counts the number of times a TDR record is padded to the size of the TDR provisioned by parameter TDR_RECORD_SIZE in table TOPTDROP. This register is pegged if TDR_RECORD_SIZE is set to FIXED and the actual size value is larger than the size of the template being used.

To test this register, set TDR_RECORD_SIZE in table TOPTDROP to FIXED_SIZE with a size value that is greater than the actual size of the template(s) being used. Make a TOPS call that generates a billing record. If the size of the template needed for that call is smaller than the value in TDR_RECORD_SIZE, the billing record is padded and the PAD register or the PAD2 register is pegged.

Register PAD release history

Register PAD was introduced in TOPS11.

Associated registers

none

Associated logs

TDR101 is generated if GEN_PADDED_RECORD_LOG = ON in table TOPTDROP.

Extension registers

PAD2

Register SNLOST

Register OSSAIN Custom Billing data that has been lost

This register counts the number of times OSSAIN Custom Billing data is lost.

To test this register, set TEMPLATE_TYPE to SINGLE_FIXED and make a TOPS call that generates a billing record and has OSSAIN Custom Billing data records attached to the call. Register SNLOST is pegged.

Register SNLOST release history

Register SNLOST was introduced in TOPS11.

Associated registers

none

OM group TDR (end)

Associated logs

TDR102 is generated when this register is pegged.

Extension registers

SNLOST2

Register TRUNC

Register TDR records that have been truncated

This register counts the number of times a TDR record has been truncated. This register is pegged if TDR_RECORD_SIZE in table TOPTDROP is set to FIXED_SIZE or VARIABLE_SIZE and the actual size value is smaller than the size of the template being used.

To test this register, set TDR_RECORD_SIZE in table TOPTDROP to an actual size which is less than the size of the template(s) being used. Make a TOPS call that generates a billing record. If the size of the template needed for that call is greater than the value in TDR_RECORD_SIZE, the billing record is truncated and the TRUNC register is pegged.

Register TRUNC release history

Register TRUNC was introduced in TOPS11.

Associated registers

none

Associated logs

TDR100 is generated when data is truncated from the TDR template in order to fit the provisioned TDR length (TDR_RECORD_SIZE in table TOPTDROP).

Extension registers

none

OM group TDRFTMPL

OM description

TOPS Call Detail Recording Template

This group counts the number of times a call type template is used to format a TDR record.

Parameters in table TOPTDROP determine which registers in this OM group are pegged. If parameter TEMPLATE_TYPE = SINGLE_FIXED, then only register COMB (or its extension register COMB2) is pegged. If TEMPLATE_TYPE = MULTI_FIXED, then the register that is pegged is based on the call type.

Release history

OM group TDRFTMPL was introduced in TOPS11 by feature AF7817 in functionality TOPS/Carrier Interworking, OSB00001.

Registers

The following OM group TDRFTMPL registers display on the MAP terminal as follows:

```
>omshow tdrftmpl active
TDRFTMPL
CLASS:   ACTIVE
START:1998/08/31 04:00:00 MON; STOP: 1998/08/31 04:58:35
SLOWSAMPLES:         3 ; FASTSAMPLES:         28 ;
      COMB          COMB2    CALLCMP         CALLCMP2
   XFRTOIC       XFRTOIC2    LISTSRV         LISTSRV2
       BLV           BLV2    GENASST         GENASST2
    CHGADJ        CHGADJ2       INTC            INTC2
    SNCUST       S NCUST2     INWORK          INWORK2

0   0              0           0              0
    0              0           0              0
    0              0           0              0
    0              0           0              0
    0              0           0              0
```

Group structure

OM group TDRFTMPL contains one tuple.

OM group TDRFTMPL (continued)

Key field:
not applicable

Info field:
The number of times each call type template is used. to format a TDR record.

Associated OM groups

OM group TDR counts the number of times a TDR record is either truncated or padded.

Associated functional groups

The following functional groups are associated with OM group TDRFTMPL:

- Operator Services Basic, OSB00001

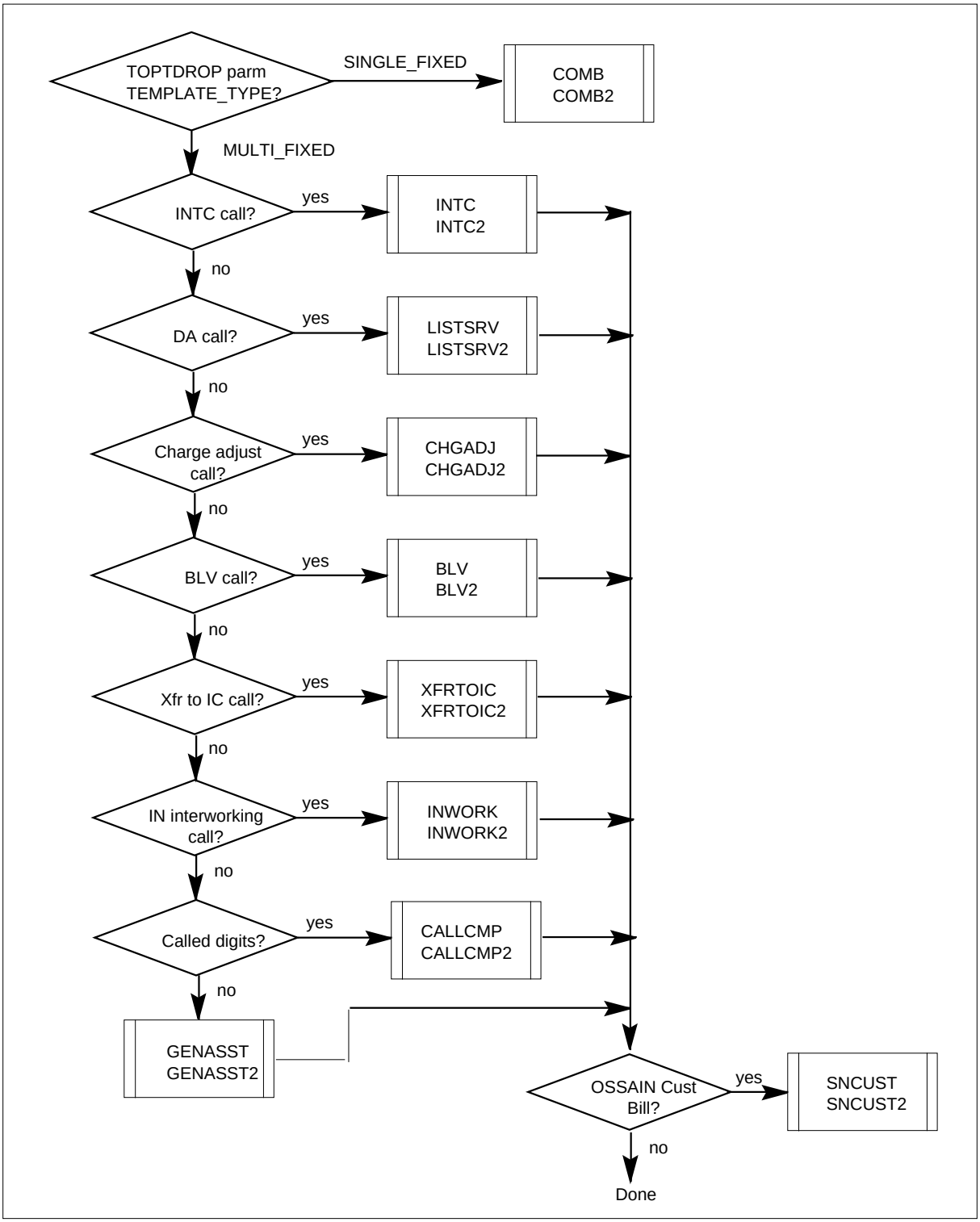
Associated functionality codes

The functionality codes associated with OM group TDRFTMPL are shown in the following table.

Functionality	Code
TOPS/Carrier Interworking	OSB00001

OM group TDRFTMPL (continued)

OM group TDRFTMPL registers



OM group TDRFTMPL (continued)

Register BLV

Register Billing Line Verification/Interrupt Template

This register counts the number of times the BLV/Interrupt Template is used to format a TDR record. This register is pegged when TEMPLATE_TYPE in table TOPTDROP is set to MULTI_FIXED and the call type is BLV/Interrupt.

To test this register, set parameter TEMPLATE_TYPE = MULTI_FIXED in table TOPTDROP.

Make a TOPS call that uses the BLV/Interrupt Template. Register BLV or the extension register BLV2 is pegged.

Register BLV release history

Register BLV was introduced in TOPS11.

Associated registers

none

Associated logs

TDR200 is generated if parameter GEN_RECORD_LOG = ON in table TOPTDROP.

Extension registers

BLV2

Register CALLCMP

Register Call Completion Template

This register counts the number of times the Call Completion Template is used to format a TDR record. This register is pegged when TEMPLATE_TYPE in table TOPTDROP is set to MULTI_FIXED and the call type is Call Completion.

To test this register, set parameter TEMPLATE_TYPE = MULTI_FIXED in table TOPTDROP.

Make a TOPS call that uses the Call Completion Template. Register CALLCMP or the extension register CALLCMP2 is pegged.

Register CALLCMP release history

Register CALLCMP was introduced in TOPS11.

Associated registers

none

Associated logs

TDR200 is generated if parameter GEN_RECORD_LOG = ON in table TOPTDROP.

Extension registers

CALLCMP2

Register CHGADJ

Register Charge Adjust Template

This register counts the number of times the Charge Adjust Template is used to format a TDR record. This register is pegged when TEMPLATE_TYPE in table TOPTDROP is set to MULTI_FIXED and the call type is Charge Adjust.

To test this register, set parameter TEMPLATE_TYPE = MULTI_FIXED in table TOPTDROP.

Make a TOPS call that uses the Charge Adjust Template. Register CHGADJ or the extension register CHGADJ2 is pegged.

Register CHGADJ release history

Register CHGADJ was introduced in TOPS11.

Associated registers

none

Associated logs

TDR200 is generated if parameter GEN_RECORD_LOG = ON in table TOPTDROP.

Extension registers

CHGADJ2

Register COMB

Register Combined template

This register counts the number of times the Combined template is used to format a TDR record. This register is pegged when TEMPLATE_TYPE in table TOPTDROP is set to SINGLE_FIXED.

OM group TDRFTMPL (continued)

Make a TOPS call that generates a billing record. Register COMB or the extension register COMB2 is pegged.

Register COMB release history

Register COMB was introduced in TOPS11.

Associated registers

none

Associated logs

TDR200 is generated if parameter GEN_RECORD_LOG = ON in table TOPTDROP.

Extension registers

COMB2

Register GENASST

Register General Assistance Template

This register counts the number of times the General Assistance Template is used to format a TDR record. This register is pegged when TEMPLATE_TYPE in table TOPTDROP is set to MULTI_FIXED and the call type is General Assistance.

To test this register, set parameter TEMPLATE_TYPE = MULTI_FIXED in table TOPTDROP.

Make a TOPS call that uses the General Assistance Template. Register GENASST or the extension register GENASST2 is pegged.

Register GENASST release history

Register GENASST was introduced in TOPS11.

Associated registers

none

Associated logs

TDR200 is generated if parameter GEN_RECORD_LOG = ON in table TOPTDROP.

Extension registers

GENASST2

Register INTC

Register Intercept Template

This register counts the number of times the Intercept Template is used to format a TDR record. This register is pegged when TEMPLATE_TYPE in table TOPTDROP is set to MULTI_FIXED and the call type is Intercept.

To test this register, set parameter TEMPLATE_TYPE = MULTI_FIXED in table TOPTDROP.

Make a TOPS call that uses the Intercept Template. Register INTC or the extension register INTC2 is pegged.

Register INTC release history

Register INTC was introduced in TOPS11.

Associated registers

none

Associated logs

TDR200 is generated if parameter GEN_RECORD_LOG = ON in table TOPTDROP.

Extension registers

INTC2

Register INWORK

Register Intelligent Network (IN) Interworking Billing Template

This register counts the number of times the IN Interworking Billing Template is used to format a TDR record. This register is pegged when TEMPLATE_TYPE in table TOPTDROP is set to MULTI_FIXED and the call type is IN Interworking.

To test this register, set parameter TEMPLATE_TYPE = MULTI_FIXED in table TOPTDROP.

Make a TOPS call that uses the IN Interworking Billing Template. Register INWORK or the extension register INWORK2 is pegged.

Register INWORK release history

Register INWORK was introduced in TOPS11.

OM group TDRFTMPL (continued)

Associated registers

none

Associated logs

TDR200 is generated if parameter GEN_RECORD_LOG = ON in table TOPTDROP.

Extension registers

INWORK2

Register LISTSRV

Register Listing Services Template

This register counts the number of times the Listing Services Template is used to format a TDR record. This register is pegged when TEMPLATE_TYPE in table TOPTDROP is set to MULTI_FIXED and the call type is Listing Services.

To test this register, set parameter TEMPLATE_TYPE = MULTI_FIXED in table TOPTDROP.

Make a TOPS call that uses the Listing Services Template. Register LISTSRV or the extension register LISTSRV2 is pegged.

Register LISTSRV release history

Register LISTSRV was introduced in TOPS11.

Associated registers

none

Associated logs

TDR200 is generated if parameter GEN_RECORD_LOG = ON in table TOPTDROP.

Extension registers

LISTSRV2

Register SNCUST

Register OSSAIN Custom Billing Template

This register counts the number of times the OSSAIN Custom Billing Template is used to format a TDR record. This register is pegged when

TEMPLATE_TYPE in table TOPTDROP is set to MULTI_FIXED and there is an OSSAIN Custom Billing recording unit associated with the call.

To test this register, set parameter TEMPLATE_TYPE = MULTI_FIXED in table TOPTDROP.

Make a TOPS call that uses the OSSAIN Custom Billing Template. Register SNCUST or the extension register SNCUST2 is pegged.

Register SNCUST release history

Register SNCUT was introduced in TOPS11.

Associated registers

none

Associated logs

TDR200 is generated if parameter GEN_RECORD_LOG = ON in table TOPTDROP.

Extension registers

SNCUST2

Register XFRTOIC

Register Call Transfer to Interlata Carrier (IC) Template

This register counts the number of times the Call Transfer to IC Template is used to format a TDR record. This register is pegged when TEMPLATE_TYPE in table TOPTDROP is set to MULTI_FIXED and the call type is Call Transfer to IC.

To test this register, set parameter TEMPLATE_TYPE = MULTI_FIXED in table TOPTDROP.

Make a TOPS call that uses the Call Transfer to IC Template. Register XFRTOIC or the extension register XFRTOIC2 is pegged.

Register XFRTOIC release history

Register XFRTOIC was introduced in TOPS11.

Associated registers

none

OM group TDRFTMPL (end)

Associated logs

TDR200 is generated if parameter GEN_RECORD_LOG = ON in table TOPTDROP.

Extension registers

XFRTOIC2

OM group TFCANA

OM Descriptions

Traffic separation/traffic analysis (TFCANA)

The TFCANA provides information on call attempts, call setup time, and call connect time. The information occurs at source-traffic-separation and destination-traffic-separation intersections.

The traffic separation measurement system (TSMS) separates traffic from point to point. The following three components of each call can separate:

- the point-to-point attempt peg
- the setup time
- the point-to-point connect time

The system collects the counts at source-traffic-separation and destination-traffic-separation intersections. The system breaks down the data on the first calls by call type. The three call types are as follows:

- the direct dialed (DD)
- the operator assisted (OA)
- the no prefix dialed (NP)

The system groups sources and destinations according to the requirements of the operating company. The system assigns a traffic separation number (TRAFSNO) to each source group and destination group. All traffic to be separated as a group receives the same TRAFSNO. Examples of traffic groups include a group of lines, a group of trunks, or groups of announcements. Any number of lines, trunks, tones, special tones, or announcements can have the same TRAFSNO. The system assigns each source group a source traffic separation number (STSN) from 0 to 127. The system assigns each destination group a destination traffic separation number (DTSN) from 0 to 127.

The sources and destinations are as follows:

- a line or group of lines
- a trunk group or group of trunk groups
- a network class of service (NCOS) associated with Meridian Digital Centrex (MDC) traffic

The sources and destinations are as follows:

- a line or group of lines
- a trunk group or group of trunk groups

OM group TFCANA (continued)

- an announcement or group of announcements
- a tone or group of tones
- generic destinations
- NCOS associated with MDC traffic

The DTSN intersection assigns the attempt peg register and the registers for setup and connect use at each STSN. The attempt peg register makes an attempt count when an idle destination terminal is available and a successful network connection occurs. Time-stamping accumulates the setup time. The OM use scan accumulates the connect time.

Release history

The OM group TFCANA was introduced before the BCS20.

SN06 (DMS)

Key field REGISTER_NUMBER renamed from REGISTER_NUMBERS for activity Q00759990.

NA011

The maximum number of registers in OM group TFCANA increased from 2048 to 4096.

BCS33

The BCS33 converts register TFANCU from CCS to deci-erlangs. The BCS33 converts register TFANCU before the OMSHOW command on the ACTIVE class displays the deci-erlangs.

BCS27

The BCS27 is an attempt count that increases on E911 calls on multi-frequency (MF) and dial pulse (DP) trunks.

BCS25

The BCS25 is a group of traffic separation measurements that increase for MDC speed call long programming and short programming.

BCS23

The BCS23 is an attempt count and a connect time that increase on international DMS-100 family switches.

BCS20

The BCS20 is a group of traffic separation measurements that increase on MDC calls.

Registers

The MAP terminal displays the OM group TFCANA registers as follows:

```
TFANPEG         TFANPEG2        TFANSU          TFANSU2
TFANCU          TFANCU2
```

For international switches, the TFCANA registers appear at the MAP as follows:

```
TFANPEG         TFANPEG2        TFANCU          TFANCU2
```

Group structure

The office parameter TFAN_ENHANCED_FEATURE in table OFCOPT must be set to Y (yes) in order to activate the TSMS feature. The maximum matrix is 128 by 128. The maximum OM register allocation is 4096.

The office parameter NO_TFAN_OM_REGISTERS in table OFCENG specifies the maximum number of register numbers that can occur in table TFANINT.

The office parameter TFAN_DEFAULT_REG_LOG in table OFCENG controls the production of the default register log report TFAN100. The system generates the TFAN100 log when traffic routes to the default register.

The system uses the TRAFSNO field of table TRKGRP to assign the source traffic separation numbers (STSN) to trunk groups. The system uses the TRAFSNO field of table LINEATTR to assign the STSN to subscriber lines. The range of the TRAFSNO field is 0 to 127.

The system uses the TRAFSNO field of table TRKGRP to assign the DTSN to trunk groups. The system uses the TRAFSNO field of table LINEATTR to assign the DTSN to lines. The system uses the TRAFSNO field of table NCOS to assign the DTSN to the NCOS in a specified subscriber group. The system

OM group TFCANA (continued)

uses the TRAFSNO field of table ANNS to assign the DTSN to announcements. The system uses the TRAFSNO field of table TONES to assign the DTSN to tones. The system uses the TRAFSNO field of table STN to assign the DTSN to special tones. The range of the TRAFSNO field is 0 to 127.

The system preassigns the DTSN from 0 through 9. The following generic DTSNs are defined:

- 0 - default (DEFDTS)
- 1 - lockout (LKDTS)
- 2 - test lines (TLDTS)
- 3 - CAMA/TOPS position (POSDTS)
- 4 - call forwarding (CFDTS)
- 5 - speed calling (SCDTS)
- 6 - revertive calling (RVDTS)
- 7 - false start (FSDTS)
- 8 - partial dial abandon (PDADTS)
- 9 - future

Source by destination intersections are assigned in table TFANINT. The two-part index in table TFANINT is the STSN and DTSN. At each intersection, measurements have three OM register numbers assign according to call type. These three registers are the DDREGNO, the OAREGNO, and the NPREGNO. The DDREGNO is for direct dial (DD) call type traffic. The OAREGNO is for operator assisted (OA) call type traffic. The NPREGNO is for no prefix dialed (NP) call type traffic. Call types apply to originating traffic only. The user assigns the same register number to each call type to avoid separation by call type.

The system abandons partial dial abandon (PDAB) and partial dial timeout (PDTO) calls before called number routing analysis. The system assigns the same register number for all three call types.

Key field:
REGISTER_NUMBER

Info field:

There is no information field.

Associated OM groups

There are no associated OM groups.

Associated functional groups

The traffic separation measurement system operating group associates with the OM group TFCANA.

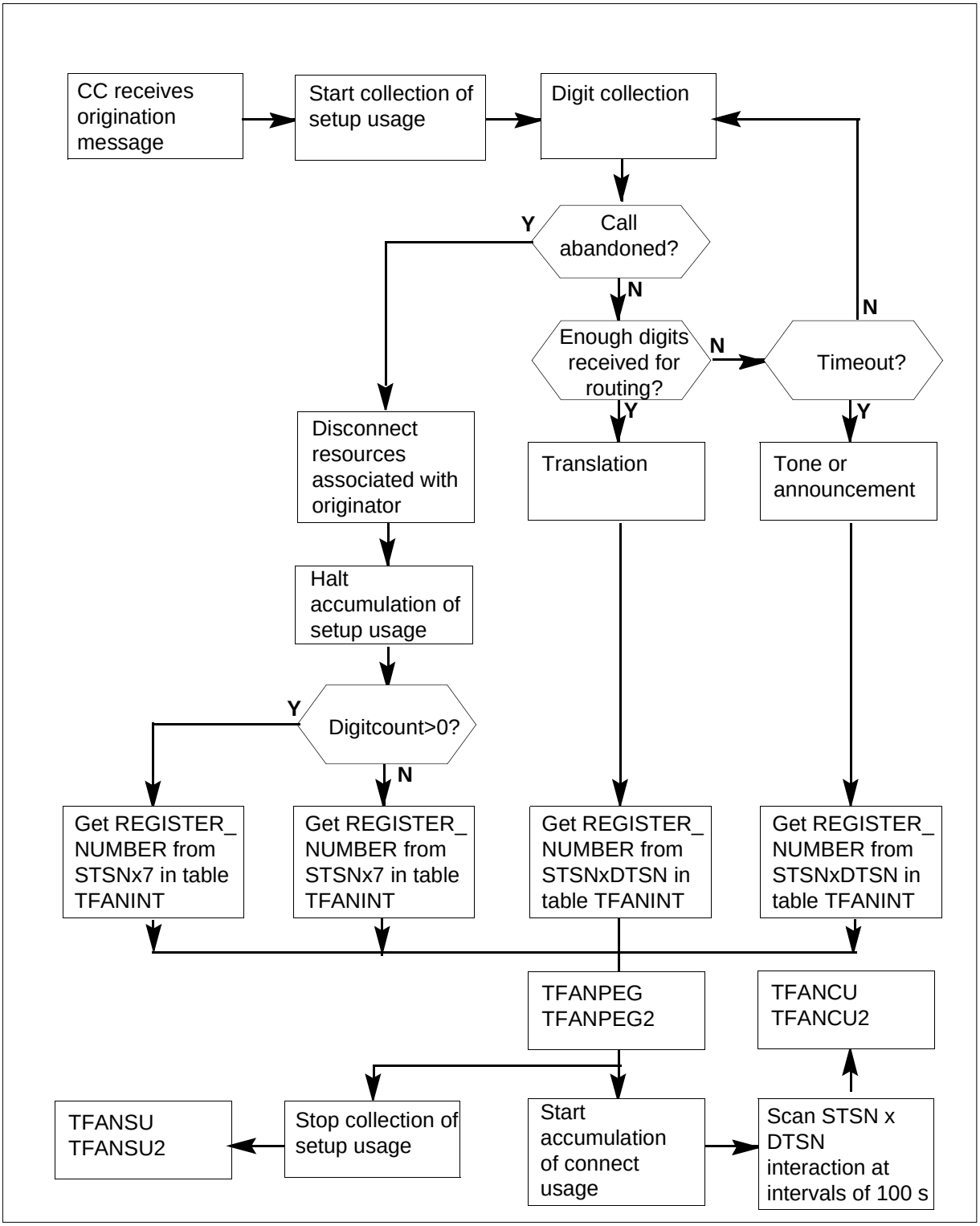
Associated functionality codes

The functionality codes associated with the OM group TFCANA appear in the following table.

Functionality	Code
Common Basic	NTX001AA
TSMS Peg Count	NTX085AA
TSMS Usage Counts	NTX087AA

OM group TFCANA (continued)

OM group TFCANA registers



Register TFANCU

Connect usage

The TFANCU is a usage register. The scan rate is slow: 100 s. The TFANCU records a connection at the intersection of the STSN and the DTSN. The system collects the connect usage only after the system collects setup usage at the intersection.

The OM usage scan accumulates the connect usage. The usage scan begins to accumulate at the intersection of the STSN and the DTSN when a call connection occurs. The system can route calls to an alternate route after a seize-fail or an out-fail causes a connection. These calls connect to the DTSN intersections, and contribute connect time to each of the STSN by the DTSN intersections.

The DTSN assigns register 0 to the STSN by default. The connect time accumulates in register 0 when the DTSN or the STSN by the DTSN intersection is not specified.

The system provides the generic DTSN of 3 (POSDTS) for the centralized automatic message accounting/Traffic Operator Position System (CAMA/TOPS) position. Connect time does not accumulate in the register assigned to the STSN by POSDTS intersection.

The system provides the generic DTSN of 4 (CFDTS) for call forwarding. Connect time does not accumulate in the register assigned to the STSN by the CFDTS intersection.

The system provides the generic DTSN of 5 (SCDTS) for speed calling. Connect time does not accumulate in the register assigned to the STSN by the SCDTS intersection. When the programming of the speed-dial short list or long list completes, the system connects the subscriber to a confirmation tone. A silent tone follows the confirmation tone. The connect usage accumulates in the register that the confirmation tone at the DTSN intersection assigned to the STSN. The connect usage accumulates in the register that the silent tone at the DTSN intersection assigned to the STSN. A programming attempt can result in a treatment. The connect time accumulates in the register that treatment at the DTSN intersection assigned to the STSN.

OM group TFCANA (continued)

The system provides the generic DTSN of 6 (RVDTS) for revertive calling. Revertive calls are processed as two or three calls. The revertive calls are as follows:

- The first call is from the calling party to the announcement or tone.
- The second call is from the called party to the announcement or tone.
- The third call is the called party to the calling party connection.

The calling party connects to a recorded announcement or a tone. At this time, connect time accumulates in the register assigned to the calling STSN. The announcement or tone at the DTSN intersection assigns the register to the STSN. When the telephone of the called party rings, connect time accumulates in the register assigned to the calling STSN. The RVDTS intersection assigns the register to the STSN. For a coded or a superimposed ringing line, connect time continues to accumulate during the ringing and during the call. Connect usage ceases when either the calling or called party goes on-hook.

For frequency ringing lines, the called subscriber connects for a short time to an announcement or tone. This connection generates connect time at the called STSN by an announcement or a tone at the DTSN intersection. Connect usage accumulation continues during the call and ceases when either the calling party or called party goes on-hook.

Calls abandoned before called number routing analysis are called PDAB calls. The PADB traffic uses DTSN 7 and 8. There is no connect time for the PDAB traffic.

Calls that fail called number integrity are known as the PDTO. Dial tone timeout occurs when a line remains off-hook and digits are not dialed. Interdigit timeout occurs when a line remains off-hook before the subscriber dials enough digits. The system assigns the DTSN for tones, special tones or announcement treatments in field TRAFSNO in table TONES, STN, or ANN. The system uses the DTSN for tones, special tones or announcement treatments for dial tone timeout and interdigit timeout. Timeout traffic causes connect time to accumulate in the register that the treatment at the DTSN intersection assigned to the STSN. The assignment of different DTSN to the treatments distinguishes dial tone timeout and interdigit timeout calls.

The system processes lines with the Call Waiting feature as if the subscriber has two lines. The first call contributes connect time at the STSN by the DTSN intersection. The second call that arrives at the busy line contributes connect time at the correct STSN by the DTSN intersection. The connect time begins

to accumulate when the called party receives the call waiting tone. This tone indicates a waiting call.

The system processes lines with the Three-Way Calling feature as if the subscriber has two lines. The system treats each origination as a new call. The DTSN intersection accumulates the connect time at the correct STSN. The three parties connect either in private consultation or in conference mode. While the three parties are connected, the DTSN intersections accumulate the connect time at both of the STSN. An attempt to add a third party causes the system to route the call to a treatment. As a result, the connect time accumulates at the correct STSN by treatment at the DTSN intersection.

Register TFANCU release history

Register TFANCU was introduced before the BCS20.

BCS33

When the office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs. The conversion from CCS to deci-erlangs occurs before the OMSHOW command on the ACTIVE class displays the deci-erlangs. The value held in the active registers is not altered and remains in CCS.

BCS25

The BCS25 is the connect time accumulated for the MDC speed-call long programming and short programming.

BCS23

The BCS23 is the connect time accumulated on the international DMS-100 group switches.

BCS20

The BCS20 is the connect time accumulated on the MDC calls.

Associated registers

The TFAN100 generates when traffic data routes to the default register REGISTER_NUMBER 0.

Associated logs

There are no associated logs.

Extension registers

The extension register is the TFANCU2 register.

OM group TFCANA (continued)

Register TFANPEG

The register TFANPEG is an attempt peg.

The TFANPEG counts network connections at the intersection of the STSN and DTSN.

The register counts successful network connections. If a seize-fail or an out-fail occurs after the connection, the call can connect to another route. When the call reroutes, the system counts an attempt at the intersection of the successful network connection of the new route.

The DTSN assigns register 0 to the STSN by default. When the DTSN or the STSN by the DTSN intersection is not specified, the TFANPEG increases register 0.

The system provides the generic DTSN of 3 (POSDTS) for the CAMA/TOPS positions. The system increases the register assigned to the STSN by the DTSN intersection for calls connected to a CAMA/TOPS position. The system increases the register assigned to the STSN by POSDTS intersection. The system increases this register when the systems abandons calls while the calls queue for a CAMA/TOPS position.

The system provides the generic DTSN of 4 (CFDTS) for call forwarding. When the user dials the access code, call forwarding activates or deactivates. As a result, the system increases the register assigned to the STSN by the CFDTS intersection. The system considers the activation call made to the forward-to-directory number. The system increases the register assigned to the STSN by the DTSN intersection. When the activation or deactivation is complete, the subscriber receives a confirmation tone and a silent tone. The registers assigned to the STSN by the confirmation tone at the DTSN intersection increase. The registers assigned to the STSN by the silent tone at the DTSN intersection increase. An activation attempt can result in a treatment. The system increases the register assigned to the STSN by the treatment at the DTSN intersection.

The system provides the generic DTSN of 5 (SCDTS) for speed calling. When the user dials the access code, the system programs the speed dialing short list or long list. The register assigned to the STSN by the SCDTS intersection increases. When programming is complete, the subscriber connects to a confirmation tone followed by a silent tone. The registers assigned to the STSN by the confirmation tone at the DTSN intersection increase. The registers assigned to the STSN by the silent tone at the DTSN intersection are incremented also. A programming attempt can result in a treatment. The

register assigned to the STSN by the treatment at the DTSN intersection increases.

The system provides the generic DTSN of 6 (RVDTS) for revertive calling. The system processes revertive calls as two or three calls. The first call is from the calling party to the announcement or tone. The second call, if the call applies, is from the called party to the announcement or tone. The third call is the called party to calling party connection. The calling party connection to a recorded announcement or a tone causes the register assigned to the calling STSN to increase. The system assigns the register to the calling STSN by the announcement or tone DTSN intersection. For frequency ringing line, the called subscriber connects for a time to an announcement or a tone. This connection increases the register assigned to the called STSN by the announcement or tone DTSN intersection. When the telephone of the called party rings, an attempt peg increases the register assigned to the calling STSN. The RVDTS intersection assigns the register.

Calls abandoned before called number routing analysis are known as PDAB calls. The PDAB traffic uses the DTSN 7 and the DTSN 8. False start abandon (FSDTS) uses the DTSN 7. The FSDTS occurs when a line goes on-hook or flashes without any digits dialed before dial tone timeout. An FSDTS call increases the register assigned to the STSN by the FSDTS intersection.

The partial dial abandon (PDADTS) uses the DTSN 8. The PDADTS occurs when a line goes on-hook before the user dials all digits and before interdigit timeout. A PDADTS call increases the register assigned to the STSN by the PDADTS intersection. The three-way calling feature treats the false start and partial dial abandon calls as one type. As a result, false start and partial dial calls increase the register assigned to the STSN by the PDADTS intersection.

Calls that fail called number integrity are known as the PDTO. Dial tone timeout occurs when a line remains off-hook and no digits are dialed. Interdigit timeout occurs when a line remains off-hook after the user fails to dial enough digits. The DTSN for tone, special tones, or announcement treatments are used for dial tone timeout and interdigit timeout. The DTSN for tone, special tones, or announcement treatments appear in field TRAFSNO in table TONES, STN or ANN. Timeout traffic increases the register assigned to the STSN by the treatment in the DTSN intersection. Assignment of different DTSN to the treatments distinguishes dial tone timeout and interdigit timeout calls.

The system processes lines with the call waiting feature as if the subscriber has two lines. For the first call, the system increases the register assigned to the STSN by the DTSN intersection. For the second call that arrives at the busy

OM group TFCANA (continued)

line, the system increases the register assigned to the STSN. The DTSN intersection assigns the register.

The system processes lines with the three-way calling feature as if the subscriber has two lines. The system treats each origination as a new call. The system increases the register assigned to the correct STSN by the DTSN intersection. An attempt to add a third party causes the system to route the call to a treatment. The addition of a third party increases the register assigned to the STSN by treatment in the DTSN intersection.

For overlapped outpulsing traffic, the system increases the register assigned to the STSN by the DTSN intersection. This increase occurs when enough digits are available to route the call. The register assigned to the STSN by the PDADTS intersection does not increase if the system abandons the call.

Register TFANPEG release history

Register TFANPEG was introduced before the BCS20.

BCS27

The BCS27 is an attempt count that increases on E911 calls on multi-frequency (MF) and dial pulse (DP) trunks.

BCS25

The BCS25 is an attempt count that increases for MDC speed call long programming and short programming.

BCS23

The BCS23 is an attempt count that increases on international DMS-100 family switches.

BCS20

The BCS20 is an attempt count that increases on MDC calls.

Associated registers

There are no associated registers.

Associated logs

The TFAN100 generates when the system sends traffic data to the default register, REGISTER_NUMBER 0.

Extension registers

The extension register is the TFANPEG2.

Register TFANSU

The TFANSU register is setup usage.

The TFANSU is a record of the setup time at the intersection of the STSN and DTSN. Setup usage is the number of seconds between origination and connection of a call.

The system does not generate TFANSU for international switches.

Time-sampling accumulates the setup time. The setup count begins for lines when the origination message arrives at the central control. The system must accept the origination message for service. Accepted for service indicates that a channel is free. If the system requires a digitone receiver, either a receiver or space in the receiver-wait queue is available. For dial pulse lines, a the system requires a free channel. If resources are not available, the origination returns to one of the following for reorigination:

- line module (LM)
- line concentrating module (LCM)
- remote line module (RLM)
- remote line concentrating module (RLCM)

If the system returns the call for reorigination, time-stamping does not occur.

The setup count begins for trunks when the origination message arrives in the central control. For multifrequency trunks, the start time is the time of seizure. For dial pulse trunks, the start time occurs when the user dials at least three digits.

When the network connection to the first available destination terminal occurs, the system calculates the difference in time from origination to connection. The system calculates the difference in time to the second. The system adds the calculation to the setup usage register at the intersection of the STSN and the DTSN.

When the DTSN or the STSN by the DTSN intersection is not specified, setup time accumulates in the register assigned to STSN. The system assigns the register to the STSN by default DTSN (0).

The system provides the generic DTSN of 3 (POSDTS) for CAMA/TOPS positions. The setup time for an operator-assisted call is the dialing time. The setup time includes the time in queue for or connected to a TOPS or CAMA position. The setup time accumulates in the register assigned to the STSN by the DTSN intersection. The setup time for calls the system abandons

OM group TFCANA (continued)

accumulates in the register assigned to the intersection of STSN and POSDTS. The system can abandon calls that are in queue or at a CAMA/TOPS position.

The system provides the generic DTSN of 4 (CFDTS) for call forwarding. Call forwarding activates or deactivates when the user dials the access code. The setup time accumulates while the subscriber activates or deactivates call forwarding. The setup time accumulates in the register assigned to the intersection of the STSN and the CFDTS. The setup time is the time difference between the detection of a call and start of the follow-up activation call. The setup time for call forwarding deactivation is the time difference between call detection and when the caller goes on-hook. The system considers the activation call made to the forward-to-directory number. Setup time does not occur at the STSN by the DTSN intersection. Setup time records at the STSN by the CFDTS intersection. When activation or deactivation is complete, the subscriber receives a confirmation tone and a silent tone. The setup time does not accumulate at the STSN by the confirmation tone at the DTSN intersection. Setup time does not accumulate at the STSN by the silent tone at the DTSN intersection.

The system provides the generic DTSN of 5 (SCDTS) for speed calling. When the user dials the access code, the system programs the speed-dialing short-list or long-list. Setup time accumulates in the register assigned to the intersection of the STSN and the SCDTS. The setup time is the time difference between call detection of a call and when at which the caller goes on-hook. When the programming is complete, the subscriber receives a confirmation tone and a silent tone.

Setup time does not accumulate at the STSN by the confirmation tone at the DTSN intersection. Setup time does not accumulate at the STSN by the silent tone at the DTSN intersection. A programming attempt can causes the system to route a call to treatment. If the system routes the call, setup time accumulates in the register assigned to the STSN by the SCDTS intersection. Setup time does not accumulate at the register assigned to the STSN by the treatment at the DTSN intersection.

The system provides the generic DTSN of 6 (RVDTS) for revertive calling. The system processes revertive calls as two or three calls. The first call is from the calling party to the announcement or tone. The second call is from the called party to the announcement or tone. The third call is the called party to calling party connection. The calling party receives a recorded announcement or tone. When this event occurs, the setup time starts to accumulate. Setup time accumulates in the register assigned at the calling STSN by the announcement or tone at the DTSN intersection.

Calls abandoned before called number routing analysis are known as PDAB calls. The PDAB uses the DTSN 7 and the DTSN 8. False start abandon (FSDTS) uses the DTSN 7. False start abandon occurs when a line goes on-hook or flashes before dial tone timeout. A FSDTS call causes setup time to accumulate at the register assigned to the STSN by the FSDTS intersection. Partial dial abandon (PDADTS) uses the DTSN 8. Partial dial abandon occurs when a line goes on-hook before the user dials all digits and before interdigit timeout. A partial dial abandon call causes setup time to accumulate in the register assigned to the STSN. The PDADTS intersection assigns the register.

The system processes lines with the Call Waiting feature as if two calls are in progress. Setup time for each call accumulates at the appropriate STSN by the DTSN intersection. The setup time is the time between call detection and call connection.

The system processes lines with the Three-Way Calling feature as if the subscriber has two lines. The system treats each origination as a new call. The setup time accumulates in the register assigned to the correct STSN by the DTSN intersection. An attempt to add at third party can cause the system to route the call to a treatment. The addition of a third party causes setup time to accumulate at the register assigned to the STSN by the DTSN intersection. The Three-Way Calling feature treats false start and partial dial abandon calls as one type. False start and partial dial abandon calls cause setup time to accumulate at the register assigned to the STSN. The PDADTS intersection assigns the register.

For overlapped outpulsing traffic, the setup time accumulates at the STSN by the DTSN intersection. Setup time accumulates at the STSN by the DTSN intersection when enough digits are available to route the call. If the system abandons the call, setup time does not accumulate at the register assigned to the STSN. The PDADTS intersection assigns the register.

Register TFANSU release history

Register TFANSU was introduced before the BCS20.

BCS25

The BCS25 is the setup time accumulated on MDC speed-call long programming and short programming.

BCS20

The BCS20 is the setup time accumulated on MDC calls.

Associated registers

There are no associated registers.

OM group TFCANA (end)

Associated logs

The TFAN100 generates when the system sends traffic data to the default register, REGISTER_NUMBER 0.

Extension registers

The TFANSU2 is the extension register.

OM group TM

OM description

Trunk modules (TM)

The OM group TM counts errors, faults, and maintenance state transitions for trunk modules, maintenance trunk modules, and remote service modules.

Release history

The OM group TM was introduced before BCS20.

BCS30

Software change to provide usage counts in CCS or deci-erlangs.

Registers

The OM group TM registers appear on the MAP terminal as follows:

```
TMERR   TMFLT       TMSBU       TMMBU
TMCCTDG TMCCTFL     TMMBP       TMSBP
TMMBTCO TMSBTCO     TMCCTOP
```

Group structure

The OM group TM provides one tuple for each office.

Key field:
There is no key field

Info field:
There is no info field

Associated OM groups

The measurements in this group are included in groups PM and PMTYP. Group PM counts errors, faults, and maintenance state transitions for peripheral modules (PM) with node numbers. Group PMTYP counts peripheral module errors, faults, and state changes for a group of PMs of the same type.

Associated functional groups

There are no associated functional groups.

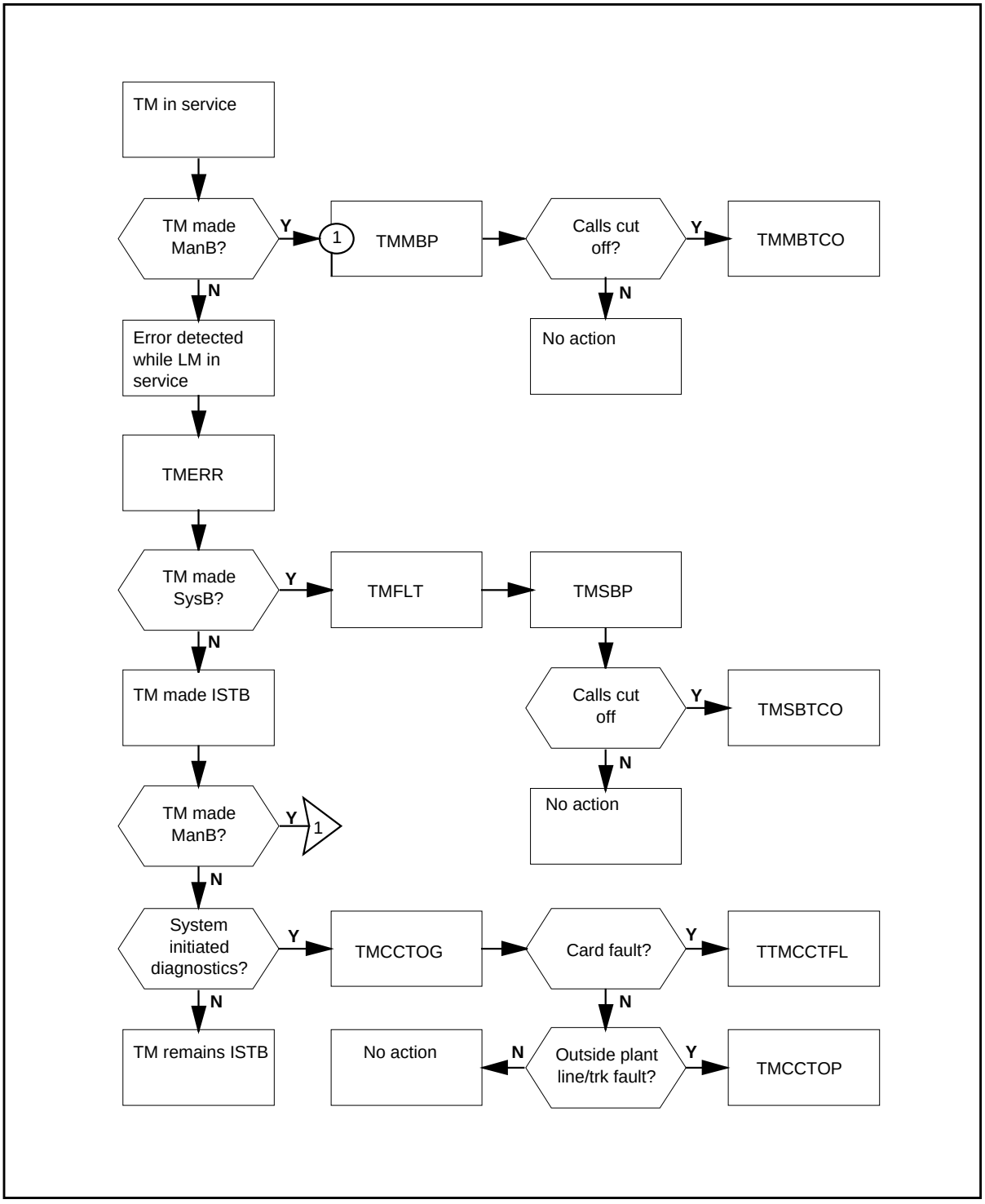
OM group TM (continued)

Associated functionality codes

The associated functionality codes for OM group TM appear in the following table.

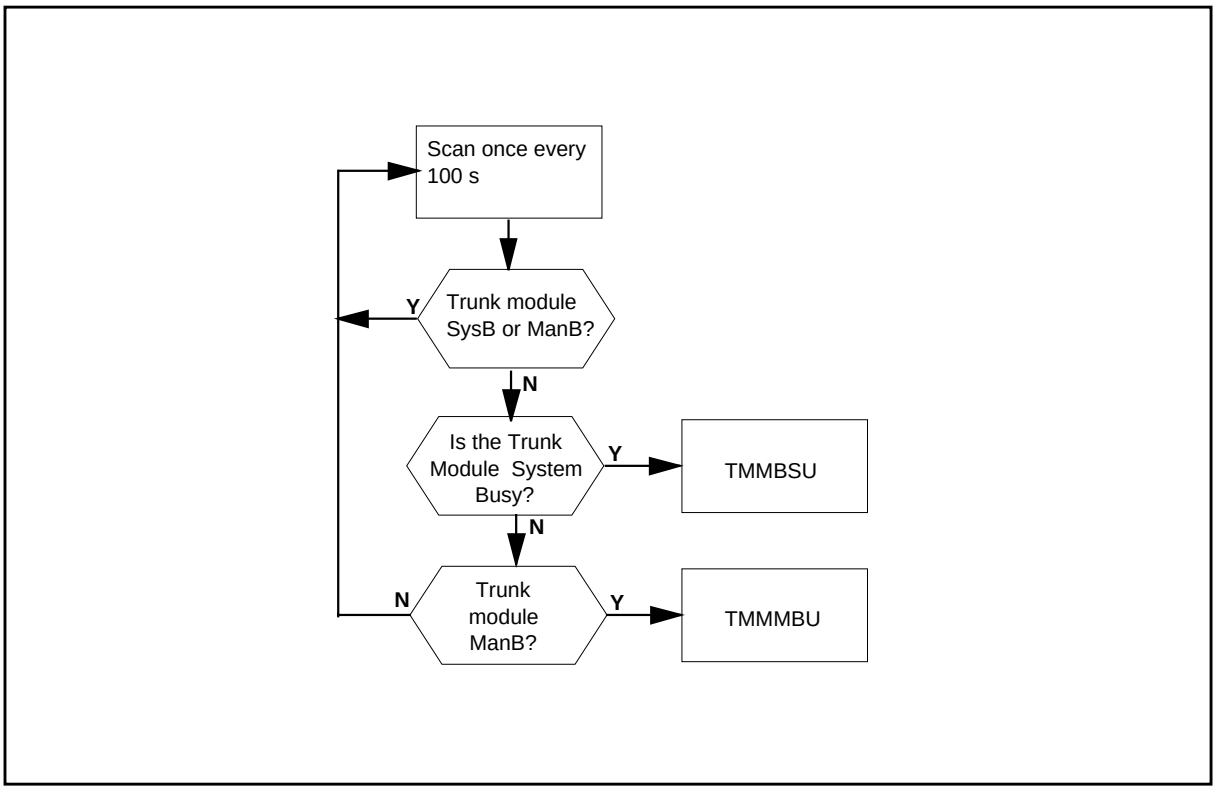
Functionality	Code
Common Basic	NTX001AA
International Switching Center-Basic	NTX300AA

OM group TM registers



OM group TM (continued)

OM group TM usage registers



Register TMCCTDG

Trunk module circuit diagnostics (TMCCTDG)

Register TMCCTDG increases when the system runs diagnostics on any trunk interface card or service circuit. The trunk module diagnostics perform the following activities:

- check that cards of the correct type are present
- operates the test relay
- operates and releases signal distribution points and analyses scan results
- checks transmission loss in looparound mode

Register TMCCTDG release history

Register TMCCTDG was introduced before BCS20.

Associated registers

Registers PM_PMCCTDG and PMTYP_PMTCCTDG increase when the system increases TMCCTDG.

Associated logs

There are no associated logs.

Register TMCCTFL

Trunk module circuit failure (TMCCTFL)

Register TMCCTFL increases when diagnostics run on a trunk interface card or service circuit fail because of a card fault.

Register TMCCTFL release history

Register TMCCTFL was introduced before BCS20.

Associated registers

Register TMCCTDG increases when a diagnostic is run.

Associated logs

There is no associated logs.

Register TMCCTOP

Trunk module circuit outside plant (TMCCTOP)

Register TMCCTOP increases when the signaling test at a switching office detects a fault on a trunk circuit. The system detects the fault between the switching office and a far-end office. Register TMCCTOP increases when an originating office does not receive a start-dial or wink signal from the far-end office. A start-dial or wink signal is sent in response to the off-hook that the originating office sent.

Register TMCCTOP release history

Register TMCCTOP was introduced prior to BCS20.

Associated registers

Registers PM_PMCCTOP and PMTYP_PMTCCTOP increase when the system increases TMCCTOP.

Associated logs

There are no associated logs.

OM group TM (continued)

Register TMERR

Trunk module errors (TMERR)

TMERR counts errors and failures detected in an in-service trunk module.

The events that TMERR counts include

- software and hardware errors
- accuracy, audit, and processing failures
- controller message congestion

Register TMERR release history

Register TMERR was introduced before BCS20.

Associated registers

Registers PM_PMERR and PMTYP_PMTERR increase when the system increases TMERR.

Associated logs

There are no associated logs.

Register TMFLT

Trunk module faults (TMFLT)

Register TMFLT counts errors that cause the trunk module to become system busy.

A manual or system-initiated recovery attempt initiates when the trunk modules become system busy.

Register TMFLT release history

Register TMFLT was introduced before BCS20.

Associated registers

Errors counted by TMFLT are also counted by TMERR.

Registers PM_PMFLT and PMTYP_PMTFLT increase when the system increases TMFLT.

Associated logs

There are no associated logs.

Register TMMBP

Trunk module manual busy change (TMMBP)

Register TMMBP increases when the system makes the trunk module manual busy from an in-service or in-service-trouble state.

Register TMMBP release history

Register TMMBP was introduced before BCS20.

Associated registers

Registers PM_PMMBP and PMTYP_PMTMBP increase when the system increases TMMBP.

Associated logs

There are no associated logs.

Register TMMBTCO

Trunk module manual busy terminals cut-off (TMMBTCO)

Register TMMBTCO counts subscriber calls (terminals) that are cut off when the system makes a trunk module manual busy. Calls must associate with lines or trunks in a call-processing-busy state or a call-processing-deload state. If calls do not associate, they are not counted by TMMCTCO.

Register TMMBTCO release history

Registers TMMBTCO was introduced before BCS20.

Associated registers

Registers PM_PMMBTCO and PMTYP_PMTMBTCO increase when the system increases TMMBTCO.

Associated logs

There are no associated logs.

Register TMMBU

Trunk module manual busy (TMMBU)

Register TMMBU is a usage register. The scan rate is 100 s. Register TMMBU records if trunk modules are manual busy.

Register TMMBU release history

Register TMMBU was introduced prior to BCS20.

OM group TM (continued)

BCS30
Software change to provide usage counts in CCS or deci-erlangs.

Associated registers

Registers PM_PMMMBU and PMTYP_PMTMMBU increase when the system increases TMMBU.

Associated logs

There are no associated logs.

Register TMSBP

Trunk module system busy transitions (TMSBP)

Register TMSBP increases when the system makes the trunk module system busy. The trunk module is made system busy from an in-service or an in-service-trouble state.

If the trunk module recovers from the C-side busy state before being made system busy, this register is not increased.

Register TMSBP release history

Register TMSBP was introduced before BCS20.

Associated registers

Registers PM_PMSBP and PMTYP_PMTSBP increases when the system increases TMSBP.

Associated logs

There are no associated logs.

Register TMSBTCO

Trunk module system busy terminals cut off (TMSBTCO)

Register TMSBTCO counts subscriber calls (terminals) that are cut off. Calls are cut off when the system makes a trunk module C-side busy. The trunk module is made C-side busy from an in-service or in-service-trouble state.

C-side busy is an intermediate state that occurs before the system makes the trunk module system busy.

Register TMSBTCO release history

Register TMSBTCO was introduced before BCS20.

Associated registers

Registers PM_PMSBTCO and PMTYP_PMTSBTCO increase when the system increases TMSBTCO.

Associated logs

There are no associated logs.

Register TMSBU

Trunk module system busy (TMSBU)

TMSBU is a usage register. The scan rate is 100 s. TMSBU records if trunk modules are system busy.

The system makes a trunk module system busy if the trunk module

- fails an routine audit
- does not have available message paths
- sends more than 200 not requested trouble reports within an audit period

Register TMSBU release history

Registers TMSBU was introduced before BCS20.

BCS30

Software change to provide use counts in CCS or deci-erlangs.

Associated registers

Registers PM_PMMSBU and PMTYP_PMTMSBU increases when the system increases TMSBU.

Associated logs

There are no associated logs.

OM group TME

OM description

Terminal management environment (TME)

TME provides information on the use of the terminal management environment (TME).

TME contains five registers that count the following activities:

- attempts to initiate a TME session
- successful TME name updates
- not complete TME name updates
- successful TME feature updates
- not complete TME feature updates

Release history

The OM group TME was introduced in BCS29.

Registers

The OM group TME registers appears on the MAP terminal as follows:

```
TMEKEY      NAMEUPD NAMEFAIL    FEATUPD
FEATFAIL
```

Group structure

The OM group TME provides one tuple for each office.

Key field:
There is no key field

Info field:
There is no key field

Associated OM groups

There are no associated OM groups.

Associated functional groups

The following functional groups associate with OM group TME:

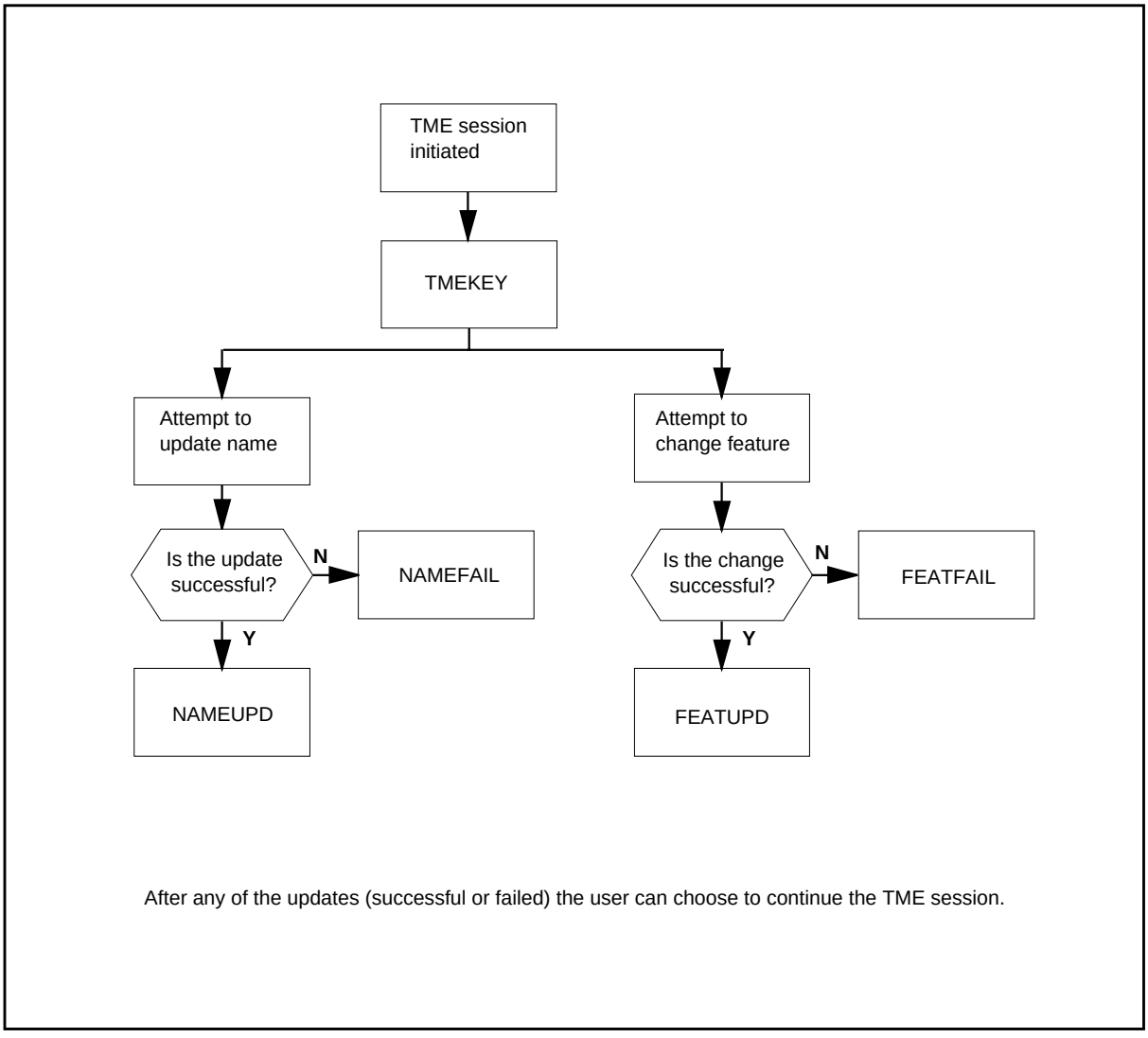
- DMS-100 Remote Switching Center
- Display Electronic Business Set

Associated functionality codes

The functionality codes for OM group TME are in the following table.

Functionality	Code
MBS Interactive Displays	NTXF88AA

OM group TME registers



OM group TME (continued)

Register FEATFAIL

Unsuccessful feature changes (FEATFAIL)

Register FEATFAIL counts terminal management environment (TME) sessions that fail to add a feature to a key. FEATFAIL also counts TME sessions that fail to delete a feature from a key on a Meridian business set (MBS).

Register FEATFAIL release history

Register FEATFAIL was introduced in BCS29.

Associated registers

Register FEATUPD counts TME sessions that correctly add a feature to a key or delete a feature from a key on an MBS.

Associated logs

There are no associated logs.

Register FEATUPD

Successful feature change (FEATUPD)

Register FEATUPD counts TME sessions that correctly add a feature to a key or delete a feature from a key on an MBS.

Register FEATUPD release history

Register FEATUPD was introduced in BCS29.

Associated registers

Registers FEATFAIL counts TME sessions that fail to add a feature to a key or delete a feature from a key on an MBS.

Associated logs

There are no associated logs.

Register NAMEFAIL

Unsuccessful name update (NAMEFAIL)

Register NAMEFAIL counts TME sessions that fail to update the name that associate with a line on an MBS.

NAMEFAIL release history

Register NAMEFAIL was introduced in BCS29.

Associated registers

There are no associated registers.

Registers NAMEUPD counts TME sessions that correctly update the name associated with a line on an MBS.

Associated logs

There are no associated logs.

Register NAMEUPD

Successful name update (NAMEUPD)

Register NAMEUPD counts TME sessions that correctly update the name that associates with a line on an MBS.

Register NAMEUPD release history

Register NAMEUPD was introduced in BCS29.

Associated registers

Register NAMEFAIL counts TME sessions that fail to update the name that associate with a line on an MBS.

Associated logs

There are no associated logs.

Register TMEKEY

Terminal management environment (TME) session initiation (TMEKEY)

Register TMEKEY counts attempts to initiate a TME session.

Register TMEKEY release history

Register TMEKEY was introduced in BCS29.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TONES

OM description

Tones (TONES)

The OM group TONES provides information on traffic for tone generators. The OM group TONES contains two peg registers, TONENATT and TONEOVFL.

The OM group TONES is provided for all types of DMS offices.

Release history

The OM group TONES was introduced before BCS20.

CSP18/SN05

Extension register TONENAT2 was introduced.

Registers

The OM group TONES registers appear on the MAP terminal as follows:

```
TONENATT        TONEOVL       TONENAT2
```

Group structure

The OM group TONES provides one tuple for each tone generator. Each tuple consists of the two registers contained in TONES.

Key field:
CLLI is the common language location identifier for the tone generator.

The standard CLLIs used for TONES are as follows:

- BVTONE Busy Verification Tone
- CWT Call Waiting Tone
- DISTCWT Distinctive Call Waiting Tone
- EBOT Executive Busy Override Warning Tone
- ENHCWT1 Enhanced Call Waiting Tone for the First Secondary Directory Number
- ENHCWT2 Enhanced Call Waiting Tone for the Second Secondary Directory
- Number

- ERWT Expensive Route Warning Tone
- IEBOT International Executive Busy Override Tone (UK Switches)
- OHQT Off Hook Queuing Tone
- PCNOR Preset Conference Normal Notification Tone
- ROH Receiver Off Hook
- SVDTMF Digitone Outpulsing Circuit
- SVMFC R2 Interregister Signaling Circuit
- SVOBSV Service Observing Circuit

The customer defines other CLLI.

Info field:
There is no info field.

Three tables must be datafilled: TONES, STN, and SVRCKT.

Table TONES defines tones the system generates at the line or trunk peripheral.

Table STN (special tone table) defines tones the system generates on cards on a TM or MTM.

Table SVRCKT (service circuit table) defines tones the system generates on cards on a TM or MTM for the following circuits:

- Digitone outpulsing
- R2 interregister signaling
- service-observing circuits

Associated OM groups

The OM group OFZ measures office traffic by the intended call destination.

The OM group OTS measures office traffic by the real call destination.

The OM group STN provides information about special tones broadcast from trunk cards in the maintenance trunk modules.

Associated functional groups

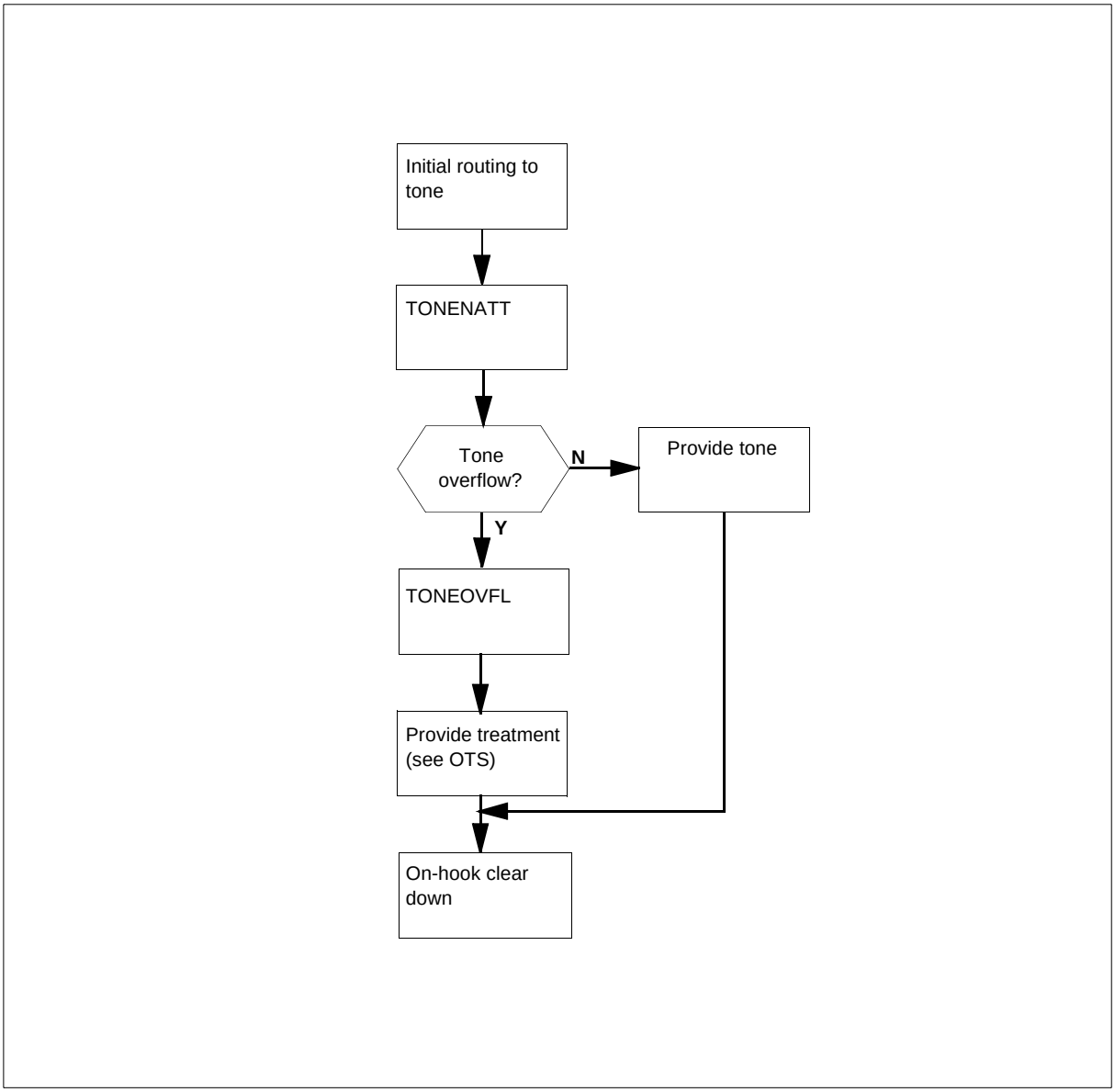
There are no associated functional groups.

Associated functionality codes

The functionality code for OM group TONES appears in the following table:

Functionality	Code
Common Basic	NTX001AA

OM group TONES registers



Register TONENATT

Tone attempts (TONENATT)

Register TONENATT counts calls the system routes to each tone generator. The register increases before the system determines if the call can connect to the tone.

If the maximum permitted number of calls uses the tone, the call routes again to the next entry in the routing list.

Register TONENATT release history

Register TONENATT was introduced before BCS20.

Associated registers

Register OFZ_INTONE counts calls that originate on a trunk and first route to a tone.

Register OFZ_ORIGTONE counts calls that originate on a line and first route to a tone.

Register OFZ_INTONE and OFZ_ORIGTONE do not count calls that route to a tone after another location.

The relationship between these registers appears in the following formula:

$$\Sigma \text{ (TONES_TONENATT) OFZ_INTONE + OFZ_ORIGTONE TONES}$$

Register OTS_ORGTRMT counts calls that originate on a line and connect to a tone or an announcement.

Register OTS_INCTRMT counts calls that originate on a trunk and connect to a tone or an announcement.

Register ANN_ANNATT counts attempts to connect to an announcement.

The relationship between these registers appears in the following formula:

$$\Sigma \text{ (ANN_ANNATT) + (TONES_TONENATT)} \geq \text{OTS_ORGTRM + OTS_INCTRMT}$$

Extension registers

TONENAT2

Associated logs

There are no associated logs.

Register TONEOVFL

Tone overflow (TONEOVFL)

Register TONEOVFL counts calls the system routes to a tone generator that do not connect. The system cannot connect the calls because the maximum number of calls are already connected or the generator is maintenance busy.

Register TONEOVFL does not count calls that overflow because of network blockage.

Register TONEOVFL release history

Register TONEOVFL was introduced prior to BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if a call is call processing busy and routes to a treatment.

The system generates TRK138 if a call is call processing busy and routes to a treatment.

OM group TOPAAPPL

OM description

TOPS AIN Application

This OM group measures AIN messaging statistics for TOPS applications which utilize the TOPS AIN0.1 TCAP messaging interface. Registers in this OM group are pegged only when AIN messages are sent or received for a particular TOPS application.

Release history

OM group TOPAAPPL was introduced in TOPS07.

Registers

OM group TOPAAPPL registers display on the MAP terminal as follows:

```
>omshow topaappl active

TOPAAPPL

CLASS:   ACTIVE
START:1996/09/16 16:30:00 MON; STOP:1995/01/16 16:38:07 MON;
SLOWSAMPLES:         5 ; FASTSAMPLES:         49 ;

     KEY (TOPSAIN_APPL)
     INFOANA      INFOANA2     ANAROU       ANAROU2
     SNTORES      APERRSNT     APERRRCV     RPERRSNT
     AUTOCGAP     MISCRCV      SMSTFULL     SCPTFULL

     0 TOPSLNP
         0            0            0            0
         0            0            0            0
         0            0            0            0
```

Group structure

OM group TOPAAPPL provides one tuple per office in TOPS07.

Key field:

TOPSAIN_APPL - In TOPS07, the current application used is TOPSLNP.

Info field:

None

Associated OM groups

TOPS AIN SCCP (TOPASCCP) measures the SCCP statistics for TOPS applications which use this generic AIN messaging interface. TOPS AIN TCAP (TOPATCAP) measures the TCAP statistics for TOPS applications which use this generic AIN messaging interface.

Also, OM group TOPSLNP is an associated OM group when viewing the TOPSLNP tuple in OM group TOPAAPPL.

Associated functional groups

Functional group Operator Services Equal Access (OSEA0001) is associated with OM group TOPAAPPL.

Associated functionality codes

The functionality codes associated with OM group TOPAAPPL are shown in the following table.

Functionality	Code
TOPS LNP	OSEA0008

Register ANAROU

Register Analyze_Route messages received (ANAROU)

Register ANAROU is pegged each time an Analyze_Route message is received.

Register ANAROU release history

Register ANAROU was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

ANAROU2

Register APERRRCV

Register Application_Error received (APERRRCV)

OM group TOPAAPPL (continued)

Register APERRRCV is pegged each time an Application_Error message is received from the SCP.

Register APERRRCV release history

Register APERRRCV was introduced in TOPS07.

Associated registers

None

Associated logs

Log number: TCAP100

Extension registers

None

Register APERRSNT

Register Application_Error sent (APERRSNT)

Register APERRSNT is pegged each time an Application_Error message is sent.

Register APERRSNT release history

Register APERRSNT was introduced in TOPS07.

Associated registers

None

Associated logs

Log number: TCAP100

Extension registers

None

Register AUTOCGAP

Register Automatic Code Gapping message received (AUTOCGAP)

Register AUTOCGAP is pegged each time an ACG message is received from the SCP.

Register AUTOCGAP release history

Register AUTOCGAP was introduced in TOPS07.

Associated registers
None

Associated logs
None

Extension registers
None

Register INFOANA
Register Info_Analyzed messages sent (INFOANA)

Register INFOANA is pegged each time an Info_Analyzed message is sent.

Register INFOANA release history
Register INFOANA was introduced in TOPS07.

Associated registers
None

Associated logs
None

Extension registers
INFOANA2

Register MISCRCV
Register Message other than defined above was received (MISCRCV)

Register MISCRCV is pegged each time a message is received other than what is previously mentioned in this OM group. This includes Authorize_Termination, Continue, Disconnect, and Forward_Call.

Register MISCRCV release history
Register MISCRCV was introduced in TOPS07.

Associated registers
None

Associated logs
Log number: TCAP100

OM group TOPAAPPL (continued)

Extension registers

None

Register RPERRSNT

Register Report_Error sent (RPERRSNT)

Register RPERRSNT is pegged each time a Report_Error message is sent.

Register RPERRSNT release history

Register RPERRSNT was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register SCPTFULL

Register SCP ACG Table full (SCPTFULL)

An SCP originated ACG control could not be added because the SCP ACG control table was full.

Register SCPTFULL release history

Register SCPTFULL was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register SMSTFULL

Register SMS ACG Table full (SMSTFULL)

An SMS originated ACG control could not be added because the SMS ACG control table was full.

Register SMSTFULL release history

Register SMSTFULL was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register SNTORES

Register Send_To_Resource messages received (SNTORES)

Register SNTORES is pegged each time a Send_To_Resource message is received.

Register SNTORES release history

Register SNTORES was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TOPASCCP

OM description

TOPS AIN Signaling Connection Control Part

This OM group measures Signaling Connection Control Part (SCCP) statistics relating to TOPS applications which utilize the TOPS AIN0.1 TCAP messaging interface implemented by this activity.

Registers in this OM group are pegged only when a Unit Data Service (UDTS) message for a particular application is received. A UDTS message is received when a problem occurs while attempting to route a TCAP package.

Release history

OM group TOPASCCP was introduced in TOPS07.

Registers

OM group TOPASCCP registers display on the MAP terminal as follows:

```
>omshow topasccp active

TOPASCCP

CLASS:   ACTIVE
START:1996/09/16 16:30:00 MON; STOP:1995/01/16 16:38:07 MON;
SLOWSAMPLES:         5 ; FASTSAMPLES:         49 ;

   KEY (TOPSAIN_APPL)
   NOXLA        NOXLS           SUBSYSCG        SUBSYSFL
   UNEQUSR      NETWFAIL        NETWCNG         MISERROR

   0 TOPSLNP
         0          0               0               0
         0          0               0               0
```

Group structure

OM group TOPASCCP provides one tuple per office in TOPS07.

Key field:

TOPSAIN_APPL - In TOPS07, the current application used is TOPSLNP.

Info field:

None

Associated OM groups

TOPS AIN TCAP (TOPATCAP) measures the TCAP statistics for TOPS applications which use this generic AIN messaging interface. TOPS AIN Applications (TOPAAPPL) measures the AIN-level statistics for TOPS applications which use this interface.

Also, OM group TOPSLNP is an associated OM group when viewing the TOPSLNP tuple in OM group TOPASCCP.

Associated functional groups

Functional group Operator Services Equal Access (OSEA0001) is associated with OM group TOPASCCP.

Associated functionality codes

The functionality codes associated with OM group TOPASCCP are shown in the following table.

Functionality	Code
TOPS LNP	OSEA0008

Register MISERROR

Register Miscellaneous Error (MISERROR)

Register MISERROR is pegged each time a Unitdata Service message is received with a diagnostic other than the registers listed in this OM group.

Register MISERROR release history

Register MISERROR was introduced in TOPS07.

Associated registers

None

Associated logs

Log number: TCAP101

A TCAP101 log is generated when this register is pegged.

Extension registers

None

OM group TOPASCCP (continued)

Register NETWCNG

Register Network Congestion (NETWCNG)

Register NETWCNG is pegged each time a Unitdata Service message for a particular application is received with a diagnostic of “Network Congestion."

Register NETWCNG release history

Register NETWCNG was introduced in TOPS07.

Associated registers

None

Associated logs

Log number: TCAP101

Extension registers

None

Register NETWFAIL

Register Network Failure (NETWFAIL)

Register NETWFAIL is pegged each time a Unitdata Service message for a particular application is received with a diagnostic of “Network Failure."

Register NETWFAIL release history

Register NETWFAIL was introduced in TOPS07.

Associated registers

None

Associated logs

Log number: TCAP101

Extension registers

None

Register NOXLA

Register No Translation for any such address (NOXLA)

Register NOXLA is pegged each time a Unitdata Service message for a particular application is received with a diagnostic of “No translation of such nature."

Register NOXLA release history

Register NOXLA was introduced in TOPS07.

Associated registers

None

Associated logs

Log number: TCAP101

Extension registers

None

Register NOXLS

Register No Translation for this specific address (NOXLS)

Register NOXLS is pegged each time a Unitdata Service Message for a particular application is received with a diagnostic of “No translation for this specific address."

Register NOXLS release history

Register NOXLS was introduced in TOPS07.

Associated registers

None

Associated logs

Log number: TCAP101

Extension registers

None

Register SUBSYSCG

Register Subsystem Congestion (SUBSYSCG)

Register SUBSYSCG is pegged each time a Unitdata Service message for a particular application is received with a diagnostic of “Subsystem Congestion."

Register SUBSYSCG release history

Register SUBSYSCG was introduced in TOPS07.

Associated registers

None

OM group TOPASCCP (end)

Associated logs

Log number: TCAP101

Extension registers

None

Register SUBSYSFL

Register Subsystem Failure (SUBSYSFL)

Register SUBSYSFL is pegged each time a Unitdata Service message for a particular application is received with a diagnostic of “Subsystem Failure."

Register SUBSYSFL release history

Register SUBSYSFL was introduced in TOPS07.

Associated registers

None

Associated logs

Log number: TCAP101

Extension registers

None

Register UNEQUSR

Register Unequipped User (UNEQUSR)

Register UNEQUSR is pegged each time a Unitdata Service message for a particular application is received with a diagnostic of “Unequipped User."

Register UNEQUSR release history

Register UNEQUSR was introduced in TOPS07.

Associated registers

None

Associated logs

Log number: TCAP101

Extension registers

None

OM group TOPATCAP

OM description

TOPS AIN Transaction Capabilities Application Part

This OM group measures Transaction Capability Application Part statistics relating to TOPS applications which utilize the TOPS AIN0.1 TCAP messaging interface created by this activity.

Release history

OM group TOPATCAP was introduced in TOPS07.

Registers

OM group TOPATCAP registers display on the MAP terminal as follows:

```
>omshow topatcap active

TOPATCAP

CLASS:   ACTIVE
START:1996/09/16 16:30:00 MON; STOP:1995/01/16 16:38:07 MON;
SLOWSAMPLES:         5 ; FASTSAMPLES:         49 ;

   KEY (TOPSAIN_APPL)
   UNIDISNT      UNIDIRCV       QWPESNT      QWPESNT2
   CONVSNT       CONVRCV        RSPSNT       RSPRCV
   RSPRCV2       ABTSNT         ABTRCV       INVLSNT
   INVLSNT2      INVLRCV        INVLRCV2     INVNSNT
   INVNRCV       RTNRSNT        RTNRRCV      RETERSNT
   RETERRCV      REJCSNT        REJCRCV      NOTRANID
   PKGTOUT

   0 TOPSLNP
        0             0              0            0
        0             0              0            0
        0             0              0            0
        0             0              0            0
        0             0              0            0
        0             0              0            0
        0
```

Group structure

OM group TOPATCAP provides one tuple per office in TOPS07.

OM group TOPATCAP (continued)

Key field:
TOPSAIN_APPL - In TOPS07, the current application used is TOPSLNP.

Info field:
None

Associated OM groups

TOPS AIN SCCP (TOPASCCP) measures the SCCP statistics for TOPS applications which utilizes this generic AIN messaging interface. TOPS AIN Applications (TOPAAPPL) measures the AIN-level statistics for applications which utilizes this generic AIN messaging interface.

Also, OM group TOPSLNP is an associated OM group when viewing the TOPSLNP tuple in OM group TOPATCAP.

Associated functional groups

Functional group Operator Services Equal Access (OSEA0001) is associated with OM group TOPATCAP.

Associated functionality codes

The functionality codes associated with OM group TOPATCAP are shown in the following table.

Functionality	Code
TOPS LNP	OSEA0008

Register ABTRCV

Register Abort pkg sent (ABTRCV)

Register ABTRCV is pegged each time an Abort package is received.

Register ABTRCV release history

Register ABTRCV was introduced in TOPS07.

Associated registers

None

Associated logs

Log number: TCAP100

Extension registers

None

Register ABTSNT

Register Abort pkg received (ABTSNT)

Register ABTSNT is pegged each time an Abort package is sent.

Register ABTSNT release history

Register ABTSNT was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register CONVRCV

Register Conversation With Permission pkg received (CONVRCV)

Register CONVRCV is pegged each time a Conversation With Permission package is received.

Register CONVRCV release history

Register CONVRCV was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register CONVSNT

Register Conversation With Permission pkg sent (CONVSNT)

Register CONVSNT is pegged each time a Conversation With Permission package is sent.

OM group TOPATCAP (continued)

Register CONVSNT release history

Register CONVSNT was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register INVLRCV

Register Invoke (last) comp Received (INVLCV)

Register INVLRCV is pegged each time an Invoke (last) component is received.

Register INVLRCV release history

Register INVLRCV was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

INVLRCV2

Register INVLSNT

Register Invoke (last) Component (COMP) sent (INVLSNT)

Register INVLSNT is pegged each time an Invoke (last) component is sent.

Register INVLSNT release history

Register INVLSNT was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

INVLSNT2

Register INVNRCV

Register Invoke (not last) comp received (INVNRCV)

Register INVNRCV is pegged each time an Invoke (not last) component is received.

Register INVNRCV release history

Register INVNRCV was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register INVNSNT

Register Invoke (not last) comp sent (INVNSNT)

Register INVNSNT is pegged each time an Invoke (not last) component is sent.

Register INVNSNT release history

Register INVNSNT was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register NOTRANID

Register No Transaction Id available (NOTRANID)

OM group TOPATCAP (continued)

Register NOTRANID is pegged each time there are no transaction ids available for use.

Register NOTRANID release history

Register NOTRANID was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register PKGTOUT

Register Package Time-out (PKGTOUT)

Register PKGTOUT is pegged each time a response to a query does not arrive within the allotted time-out period.

Register PKGTOUT release history

Register PKGTOUT was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register QWPESNT

Register Query With Permission pkg sent (QWPESNT)

Register QWPESNT is pegged each time a Query With Permission package is sent.

Register QWPESNT release history

Register QWPESNT was introduced in TOPS07.

Associated registers
None

Associated logs
None

Extension registers
QWPESNT2

Register REJCRCV
Register Reject comp received (REJCRCV)

Register REJCRCV is pegged each time a Reject component is received.

Register REJCRCV release history
Register REJCRCV was introduced in TOPS07.

Associated registers
None

Associated logs
Log number: TCAP100

Extension registers
None

Register REJCSNT
Register Reject comp sent (REJCSNT)

Register REJCSNT is pegged each time a Reject component is sent.

Register REJCSNT release history
Register REJCSNT was introduced in TOPS07.

Associated registers
None

Associated logs
None

Extension registers
None

OM group TOPATCAP (continued)

Register RETERRCV

Register Return Error comp received (RETERRCV)

Register RETERRCV is pegged each time a Return Error component is received.

Register RETERRCV release history

Register RETERRCV was introduced in TOPS07.

Associated registers

None

Associated logs

Log number: TCAP100

Extension registers

None

Register RETERSNT

Register Return Error comp sent (RETERSNT)

Register RETERSNT is pegged each time a Return Error component is sent.

Register RETERSNT release history

Register RETERSNT was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register RSPRCV

Register Response pkg received (RSPRCV)

Register RSPRCV is pegged each time a Response package is received.

Register RSPRCV release history

Register RSPRCV was introduced in TOPS07.

Associated registers
None

Associated logs
None

Extension registers
RSPRCV2

Register RSPSNT
Register Response pkg sent (RSPSNT)

Register RSPSNT is pegged each time a Response package is sent.

Register RSPSNT release history
Register RSPSNT was introduced in TOPS07.

Associated registers
None

Associated logs
None

Extension registers
None

Register RTNRRCV
Register Return Result (last) comp received (RTNRRCV)

Register RTNRRCV is pegged each time a Return Result (last) component is received.

Register RTNRRCV release history
Register RTNRRCV was introduced in TOPS07.

Associated registers
None

Associated logs
None

Extension registers
None

OM group TOPATCAP (continued)

Register RTNRSNT

Register Return Result (last) comp sent (RTNRSNT)

Register RTNRSNT is pegged each time a Return Result (last) component is sent.

Register RTNRSNT release history

Register RTNRSNT was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register UNIDIRCV

Register Unidirectional pkg received (UNIDIRCV)

Register UNIDIRCV is pegged each time a Unidirectional package is received.

Register UNIDIRCV release history

Register UNIDIRCV was introduced in TOPS07.

Associated registers

None

Associated logs

Log number: TCAP199

Extension registers

None

Register UNIDISNT

Register Unidirectional package (PKG) sent (UNIDISNT)

Register UNIDISNT is pegged each time a Unidirectional package is sent.

Register UNIDISNT release history

Register UNIDISNT was introduced in TOPS07.

OM group TOPATCAP (end)

Associated registers

None

Associated logs

None

Extension registers

None

OM group TOPPACT1

OM description

TOPS open position protocol action identifiers group 1 (TOPPACT1)

The OM group TOPPACT1 counts each type of open position protocol (OPP) action identifier (ActID) that the TOPS DMS receives. The registers increase only when the system receives a correct ActID. The OPP consists of ActIDs and data identifiers (DID) the system uses to communicate between the DMS and the operator positions. Most ActIDs ask the DMS to perform a function.

Because of the large number of ActIDs, one OM group cannot include them all. Therefore, TOPPACT2 and TOPPACT3 are a continuation of this group.

Release history

The OM group TOPPACT1 was introduced in BCS35.

Registers

The OM group TOPPACT1 registers appear on the MAP terminal as follows:

AMASTTA	AMASTTA2	AUDITA	AUDITA2
CARNUMA	CARNUMA2	CHGADJA	CHGADJA2
CHGSTTA	CHGSTTA2	CCARDA	CCARDA2
CLSCHGA	CLSCHGA2	DRATEA	DRATEA2
DIRNUMA	DIRNUMA2	FORCCA	FORCCA2
LPACTA	LPACTA2	MISCA	MISCA2
NETACTA	NETACTA2	NFYA	NFYA2
OPRFBA	OPRFBA2	OPRNUMA	OPRNUMA2

Group structure

The OM group TOPPACT1 provides one tuple per office

Key field:
There is no key field.

Info field:
There is no info field.

Associated OM groups

TOPPACT2

TOPPACT3

OM group TOPPACT1 (continued)

Associated functional groups

There are no functional groups.

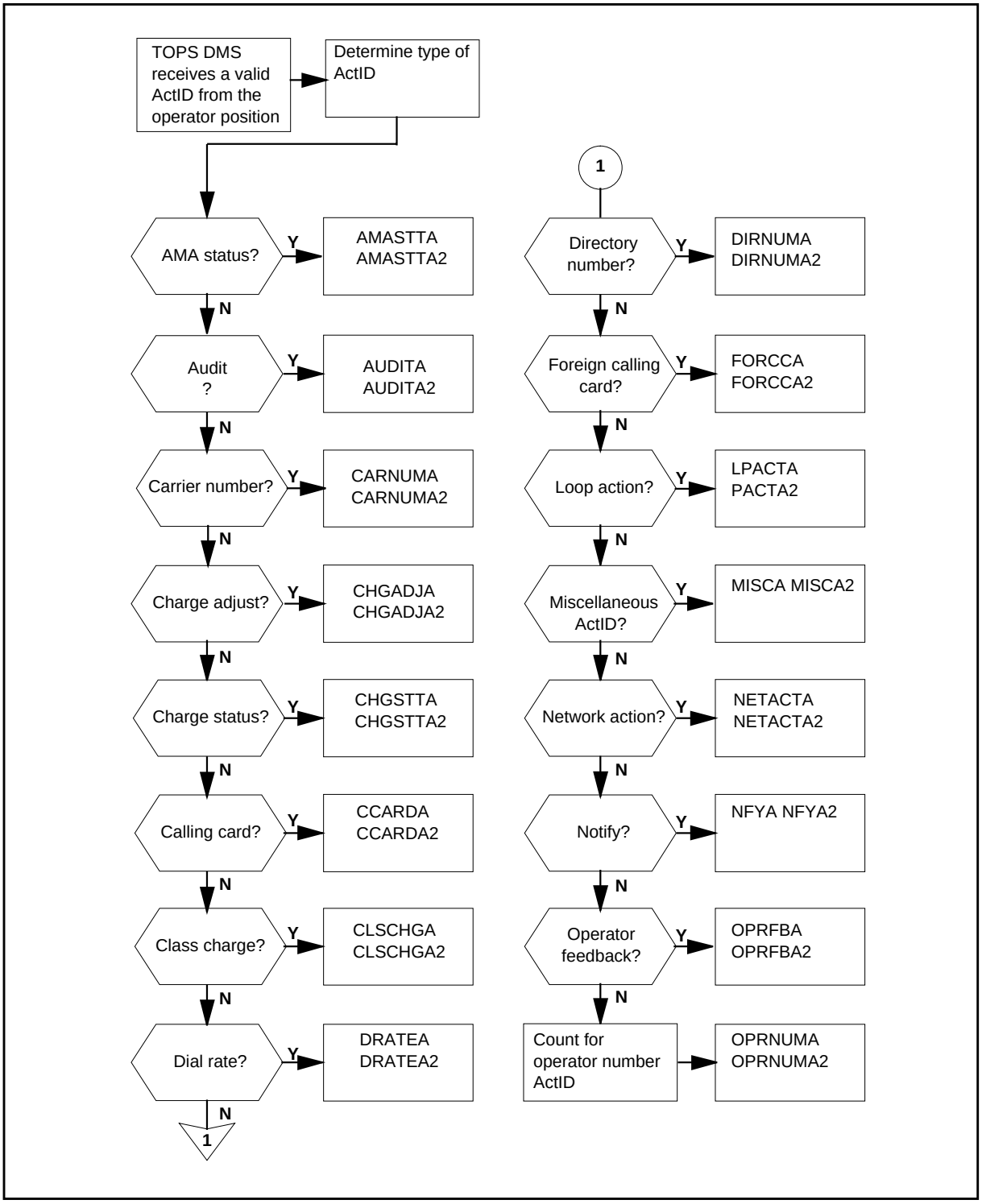
Associated functionality codes

The associated functionality code for OM group TOPPACT1 appears in the following table.

Functionality	Code
TOPS Open Position Protocol	NTXP49AA

OM group TOPPACT1 (continued)

OM group TOPPACT1 registers



Register AMASTTA

Automatic message accounting status (AMASTTA)

Register AMASTTA counts each time the operator position sends an automatic message accounting (AMA) status ActID to the DMS. This ActID routes to the DMS when an operator requests a change in the AMA status of a call.

Register AMASTTA release history

Register AMASTTA was introduced in BCS35.

Associated registers

There are no associated register.

Associated logs

There are no associated logs.

Extension registers

Register AMASTTA2 is an extension register.

Register AUDITA

Audit ActID (AUDITA)

Register AUDITA counts each time the operator position sends an Audit ActID to the DMS. This ActID goes to the DMS in response to an audit data identifier (DID) if the operator position functions.

Register AUDITA release history

Register AUDITA was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register AUDITA2 is an extension register.

Register CARNUMA

Carrier number ActID (CARNUMA)

OM group TOPPACT1 (continued)

Register CARNUMA counts each time the operator position sends a Carrier Number ActID to the DMS. This ActID requests association of a carrier with an inter local access transport area (inter LATA) call.

Register CARNUMA release history

Register CARNUMA was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register CARNUMA2 is an extension register.

Register CCARDA

Calling card ActID (CCARDA)

Register CCARDA counts each time the operator position sends a Calling Card ActID to the DMS. This ActID routes to the DMS when a user enters a calling card number after the call arrives at the operator position.

Register CCARDA release history

Register CCARDA was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register CCARDA2 is an extension register.

Register CHGADJA

Charge adjust ActID (CHGADJA)

Register CHGADJA counts each time the operator position sends a Charge Adjust ActID to the DMS. This ActID routes to the DMS when an operator performs a charge adjust for a call.

Register CHGADJA release history

Register CHGADJA was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register CHGADJA2 is an extension register.

Register CHGSTTA

Charge status ActID (CHGSTTA)

Register CHGSTTA counts each time the operator position sends a Charge Status ActID to the DMS. This ActID routes to the DMS to change the charge status of a call.

Register CHGSTTA release history

Register CHGSTTA was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register CHGSTTA2 is an extension register.

Register CLSCHGA

Class charge ActID (CLSCHGA)

Register CLSCHGA counts each time the operator position sends a Class Charge ActID to the DMS. This ActID routes to the DMS when the operator enters a class charge for the call.

Register CLSCHGA release history

Register CLSCHGA was introduced in BCS35.

Associated registers

There are no associated registers.

OM group TOPPACT1 (continued)

Associated logs

There are no associated logs.

Extension registers

Register CLSCHGA2 is an extension register.

Register DIRNUMA

Directory number ActID (DIRNUMA)

Register DIRNUMA counts each time the operator position sends a Directory Number ActID to the DMS. This ActID routes to the DMS to input a directory number for the call. The ActID also indicates any need for a connection to the directory number.

Register DIRNUMA release history

Register DIRNUMA was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register DIRNUMA2 is an extension register.

Register DRATEA

Dial rate ActID (DRATEA)

Register DRATEA counts each time the operator position sends a Dial Rate ActID to the DMS. This ActID routes to the DMS to request a change in the dial rate status of the call.

Register DRATEA release history

DRATEA was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register DRATEA2 is an extension register.

Register FORCCA

Foreign Calling Card ActID (FORCCA)

Register FORCCA counts each time the operator position sends a Foreign Calling Card ActID to the DMS. This ActID routes to the DMS when a foreign calling card is used to bill for a call.

Register FORCCA release history

Register FORCCA was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register FORCCA2 is an extension register.

Register LPACTA

Loop action ActID (LPACTA)

Register LPACTA counts each time the operator position sends a Loop Action ActID to the DMS. This ActID goes to the DMS to request a change in the status of a loop.

Register LPACTA release history

Register LPACTA was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register LPACTA2 is an extension register.

Register MISCA

Miscellaneous ActID (MISCA)

OM group TOPPACT1 (continued)

Register MISCA counts each time the operator position sends a Miscellaneous ActID to the DMS to perform the following miscellaneous actions:

- to display the current time
- to display call details
- to perform a special verification for a call

Register MISCA release history

Register MISCA was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register MISCA2 is an extension register.

Register NETACTA

Network action ActID (NETACTA)

Register NETACTA counts each time the operator position sends a Network Action ActID to the DMS. This ActID requests performance of an action on the network for a call.

Register NETACTA release history

Register NETACTA was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register NETACTA2 is an extension register.

Register NFYA

Notify ActID (NFYA)

Register NFYA counts each time the operator position sends a Notify ActID to the DMS. This ActID requests application of a notify to the call.

Register NFYA release history

NFYA was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register NFYA2 is an extension register.

Register OPRFBA

Operator feedback ActID (OPRFBA)

Register OPRFBA counts each time the operator position sends an Operator Feedback ActID to the DMS to request feedback statistics.

Register OPRFBA release history

Register OPRFBA was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register OPRFBA2 is an extension register.

Register OPRNUMA

Operator number ActID (OPRNUMA)

Register OPRNUMA counts each time the operator position sends an Operator Number ActID to the DMS. This ActID requests actions like paging, monitoring or logging on.

Register OPRNUMA release history

Register OPRNUMA was introduced in BCS35.

Associated registers

There are no associated registers.

OM group TOPPACT1 (end)

Associated logs

There are no associated logs.

Extension registers

Register OPRNUMA2 is an extension register.

OM group TOPPACT2

OM description

TOPS open position protocol action identifiers group 2

TOPPACT2 is a continuation of TOPPACT1. These OM groups count each type of open position protocol (OPP) action identifier (ActID) received by the TOPS DMS. The registers are only incremented when a valid ActID is received. OPP consists of ActIDs and data identifiers (DID) used to communicate between the DMS and the operator positions. Most ActIDs request a function be performed by the DMS.

Release history

OM group TOPPACT2 was introduced in BCS35.

Registers

OM group TOPPACT2 registers display on the MAP terminal as follows:

OUTTRKA	OUTTRKA2	OVRCOLA	OVRCOLA2
PCBA	PCBA2	PRTFTNA	PRTFTNA2
POSNUMA	POSNUMA2	POSSTA	POSSTA2
QUERYA	QUERYA2	RATESTA	RATESTA2
SERVA	SERVA2	SPLNUMA	SPLNUMA2
SRVLOGA	SRVLOGA2	SRVNUMA	SRVNUMA2
TACA	TACA2	TEXTA	TEXTA2
TRBLCDA	TRBLCDA2	CLGBLKA	CLGBLKA2

Group structure

OM group TOPPACT2 provides one tuple for each office.

Key field:
None

Info field:
None

Associated OM groups

TOPPACT1

TOPPACT3

Associated functional groups

None

OM group TOPPACT2 (continued)

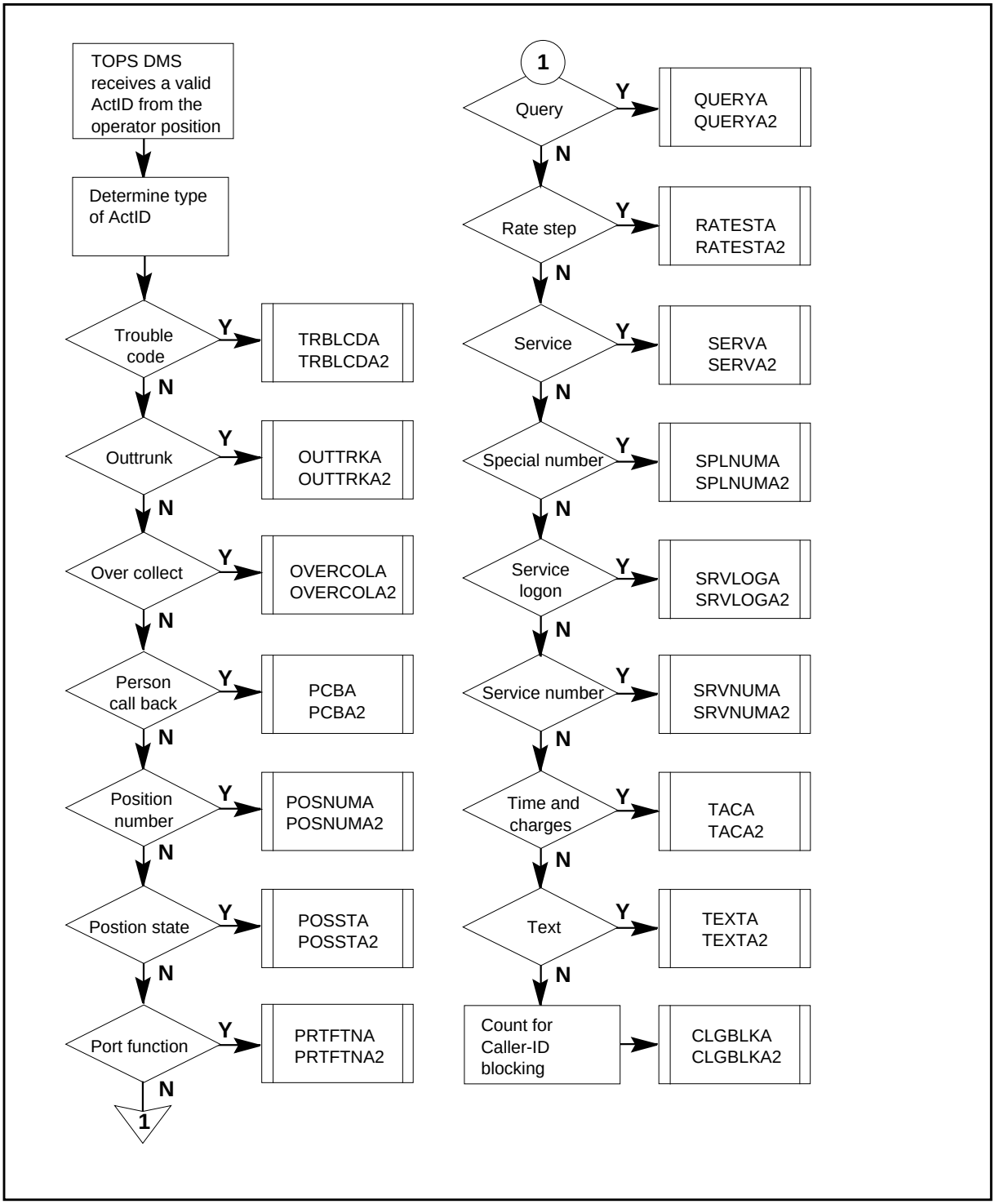
Associated functionality codes

The functionality codes associated with OM group TOPPACT2 are shown in the following table.

Functionality	Code
TOPS Open Position Protocol	NTXP49AA

OM group TOPPACT2 (continued)

OM group TOPPACT2 registers



OM group TOPPACT2 (continued)

Register CLGBLKA

Caller-ID Blocking ActID

CLGBLKA counts each time the operator position sends a Caller-ID Blocking ActID to the DMS. This ActID is sent to the DMS when the operator requests a change in the blocking status of a call.

Register CLGBLKA release history

CLGBLKA was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

CLGBLKA2

Register OUTTRKA

Outtrunk ActID

OUTTRKA counts each time the operator position sends an Outtrunk ActID to the DMS to request that an outtrunk event be performed for the call.

Register OUTTRKA release history

OUTTRKA was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

OUTTRKA2

Register OVRCOLA

Over Collect ActID

OVRCOLA counts each time the operator position sends an Over Collect ActID to the DMS. This ActID is sent to the DMS when the operator records

the amount collected for a coin call which was over and above the amount owed for the initial period.

Register OVRCOLA release history

OVRCOLA was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

OVRCOLA2

Register PCBA

Person Call-back ActID

PCBA counts each time the operator position sends a Person Call-back ActID to the DMS. This ActID is sent to the DMS to request a change in the person call-back status of the call.

Register PCBA release history

PCBA was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

PCBA2

Register POSNUMA

Position Number ActID

POSNUMA counts each time the operator position sends a Position Number ActID to the DMS. This ActID is sent to the DMS when a supervisor operator requests a change in the monitor or page status of an operator position.

Register POSNUMA release history

POSNUMA was introduced in BCS35.

OM group TOPPACT2 (continued)

Associated registers
None

Associated logs
None

Extension registers
POSNUMA2

Register POSSTA
Position State ActID

POSSTA counts each time the operator position sends a Position State ActID to the DMS. This ActID is sent to request a change in the state of the position.

Register POSSTA release history
POSSTA was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
POSSTA2

Register PRTFTNA
Port Function ActID

PRTFTNA counts each time the operator position sends a Port Function ActID to the DMS. This ActID is sent to the DMS to request a function be performed on a specific port.

Register PRTFTNA release history
PRTFTNA was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers

PRTFTNA2

Register QUERYA

Query ActID

QUERYA counts each time the operator position sends a Query ActID to the DMS. This ActID is sent to the DMS when a supervisor operator queries data concerning operators or postions in the operator's team.

Register QUERYA release history

QUERYA was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

QUERYA2

Register RATESTA

Rate Step ActID

RATESTA counts each time the operator position sends a Rate Step ActID to the DMS. This ActID is sent to the DMS when the operator enters a rate step for a call.

Register RATESTA release history

RATESTA was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

RATESTA2

Register SERVA

Service ActID

OM group TOPPACT2 (continued)

SERVA counts each time the operator position sends a Service ActID to the DMS. This ActID is sent to the DMS to initiate a sevice for a call.

Register SERVA release history

SERVA was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

SERVA2

Register SPLNUMA

Special Number ActID

SPLNUMA counts each time the operator position sends a Special Number ActID to the DMS. This ActID is sent to the DMS when a request for calling card or third-number billing is made for a call.

Register SPLNUMA release history

SPLNUMA was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

SPLNUMA2

Register SRVLOGA

Service Logon ActID

SRVLOGA counts each time the operator position sends a Service Logon ActID to the DMS. This ActID is sent to inform the DMS which services have been successfully logged into by the position.

Register SRVLOGA release history

SRVLOGA was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
SRVLOGA

Register SRVNUMA
Service Number ActID

SRVNUMA counts each time the operator position sends a Service Number ActID to the DMS. This ActID is sent to the DMS in order to access a service number such as the fire or police department.

Register SRVNUMA release history
SRVNUMA was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
SRVNUMA2

Register TACA
Time and Charges ActID

TACA counts each time the operator position sends a Time and Charges ActID to the DMS. This ActID is sent to the DMS to mark a call as requiring time and charges quotation, or when the call has been recalled for the time and charges quotation.

Register TACA release history
TACA was introduced in BCS35.

Associated registers
None

OM group TOPPACT2 (end)

Associated logs

None

Extension registers

TACA2

Register TEXTA

Text ActID

TEXTA counts each time the operator position sends a Text ActID to the DMS. This ActID is sent to the DMS to associate text with an operator specified function.

Register TEXTA release history

TEXTA was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

TEXTA2

Register TRBLCDA

Trouble Code ActID

TRBLCDA counts each time the operator position sends a Trouble Code ActID to the DMS. This ActID is sent to the DMS when an operator enters a trouble code for the current call.

Register TRBLCDA release history

TRBLCDA was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

TRBLCDA2

OM group TOPPACT3

OM description

Traffic Operator Position System (TOPS) Open Position Protocol (OPP) Action Identifiers (ActIDs) Group 3 (TOPPACT3)

TOPPACT3 is a continuation of OM groups TOPPACT1 and TOPPACT2. These OM groups count each type of OPP ActID received by the TOPS Digital Multiplex System (DMS) switch. The registers are only incremented when a valid ActID is received.

Open Position Protocol consists of ActIDs and Data Identifiers (DIDs) that are used to communicate between the TOPS DMS switch and the OPP positions. Open Position Protocol positions send ActIDs to the TOPS DMS switch to update both call information and other information. Usually, the TOPS DMS switch is required to perform a function as a result of receiving the ActID.

Release history

OM group TOPPACT3 was introduced in BCS35.

TOPS09

The SVCPROA register is added to count the number of Service Provider ActIDs sent to the switch from OPP positions.

TOPS07

Five new registers added: ALTDATA, ALTTIMA, ESTDURA, LNPREQA, and PASTHRA.

NA006

Functional group Advanced Queuing (ADVQ0001) introduces the Query Queue Status by Queue ActID with register QUERYQA through the Queue Management System (QMS) Customer Service Enhancements (ADVQ0006) functionality.

Functional group Enhanced Services (ENSV0001) introduces the Data and Operator Services System Advanced Intelligent Network (OSSAIN) Trigger ActIDs with registers DATAA and OTRIGRA through the Operator Services Advanced Intelligent Network (ENSV0014) functionality.

The description for existing register TKTNUMA is added.

NA005

Added register ATTOPRA

OM group TOPPACT3 (continued)

TOPS04

Register TKTNUMA is added.

Registers

OM group TOPPACT3 registers display on the MAP terminal as follows:

```
>OMSHOW TOPPACT3 ACTIVE

CLASS: ACTIVE
START:1995/04/07 16:00:00 FRI; STOP:1995/04/07 16:04:31 FRI;
SLOWSAMPLES:         3 ; FASTSAMPLES:         27 ;

   BCDBA          BCDBA2          FIXDURA        FIXDURA2
   FORASTA        FORASTA2        TKTNUMA        TKTNUMA2
   DATAA          DATAA2          OTRIGRA        OTRIGRA2
   ATTOPRA        ATTOPRA2        QUERYQA        QUERYQA2
   LNPREQA        LNPREQA2        ALTDATA        ALTDATA2
   ALTTIMA        ALTTIMA2        ESTDURA        ESTDURA2
   PASTHRA        PASTHRA2        SVCPROA        SVCPROA2
     0              0               0              0
     0              0               0              0
     0              0               0              0
     0              0               0              0
     0              0               0              0
     0              0               0              0
     0              0               0              0
```

Group structure

OM group TOPPACT3 provides one tuple for each office.

Key field:

None

Info field:

None

Associated OM groups

The following OM groups peg counts for the TOPS OPP ActIDs and are associated with TOPPACT3:

- TOPPACT1
- TOPPACT2

The following OM groups peg counts for the TOPS OPP DIDs and are associated with TOPPACT3:

- TOPPDID1
- TOPPDID2
- TOPPDID3
- TOPPDID4
- TOPPDID5
- TOPPDID6

TOPPMSG peg counts for TOPS OPP message types and is associated with TOPPACT3.

Associated functional groups

The following functional groups are associated with OM group TOPPACT3:

- ENSV0001
- EWSS0001
- ADVQ0001

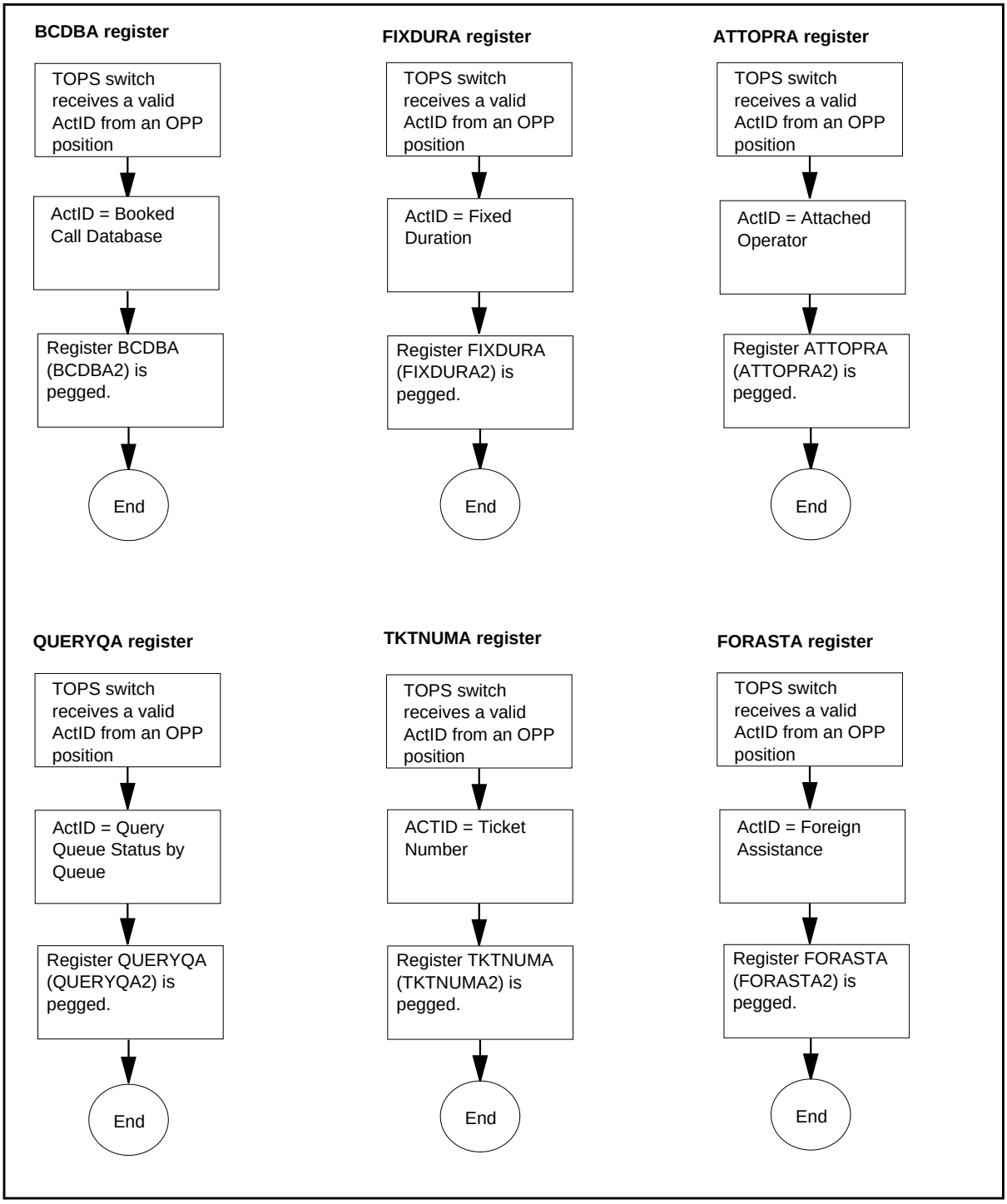
Associated functionality codes

The functionality codes associated with OM group TOPPACT3 are shown in the following table:

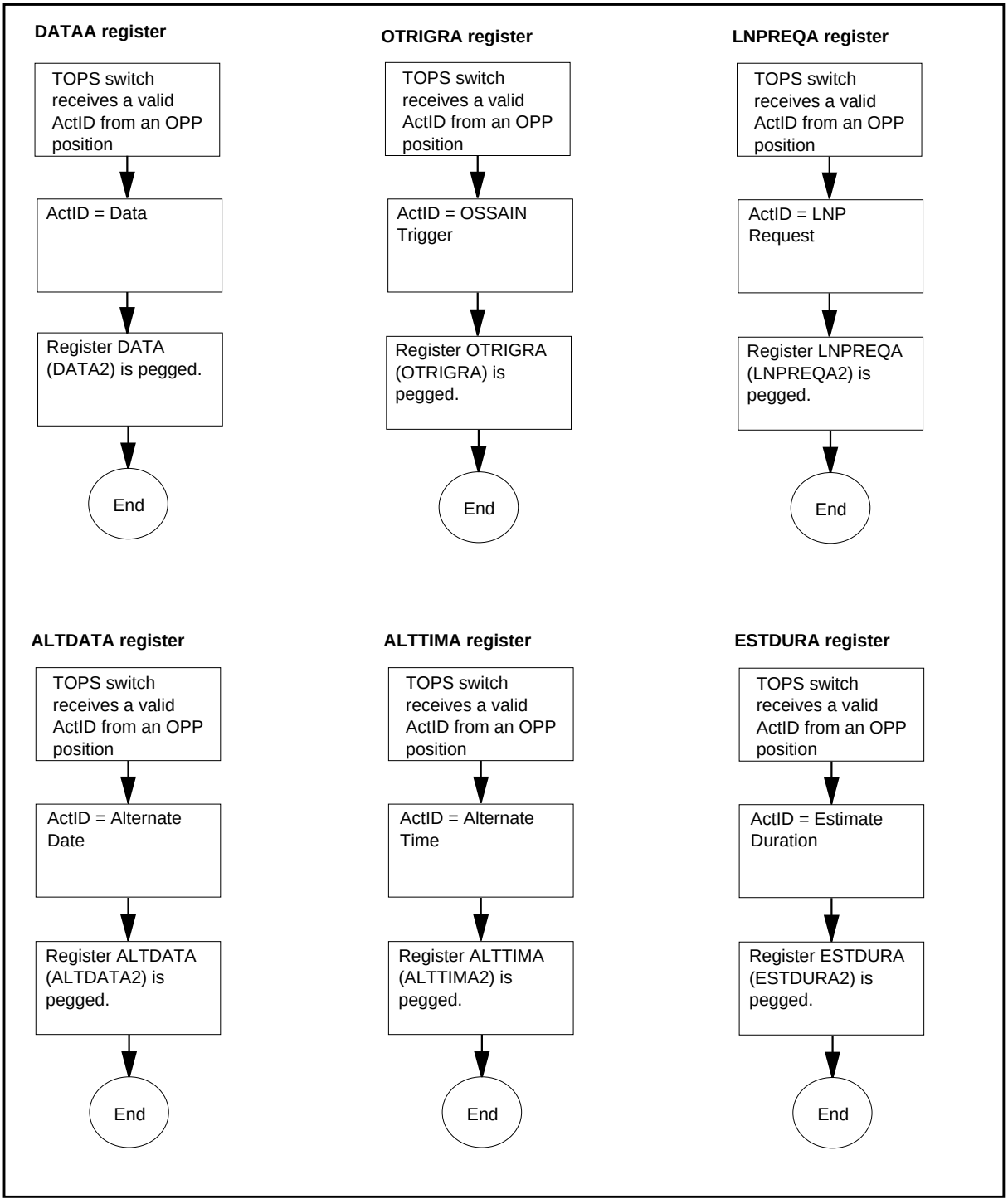
Functionality	Code
TOPS Open Position Protocol	EWSS0004
QMS Customer Service Enhancements	ADVQ0006
Operator Services Advanced Intelligent Network (AIN)	ENSV0014
Billing Changes	UNBN0001

OM group TOPPACT3 (continued)

OM group TOPPACT3 registers

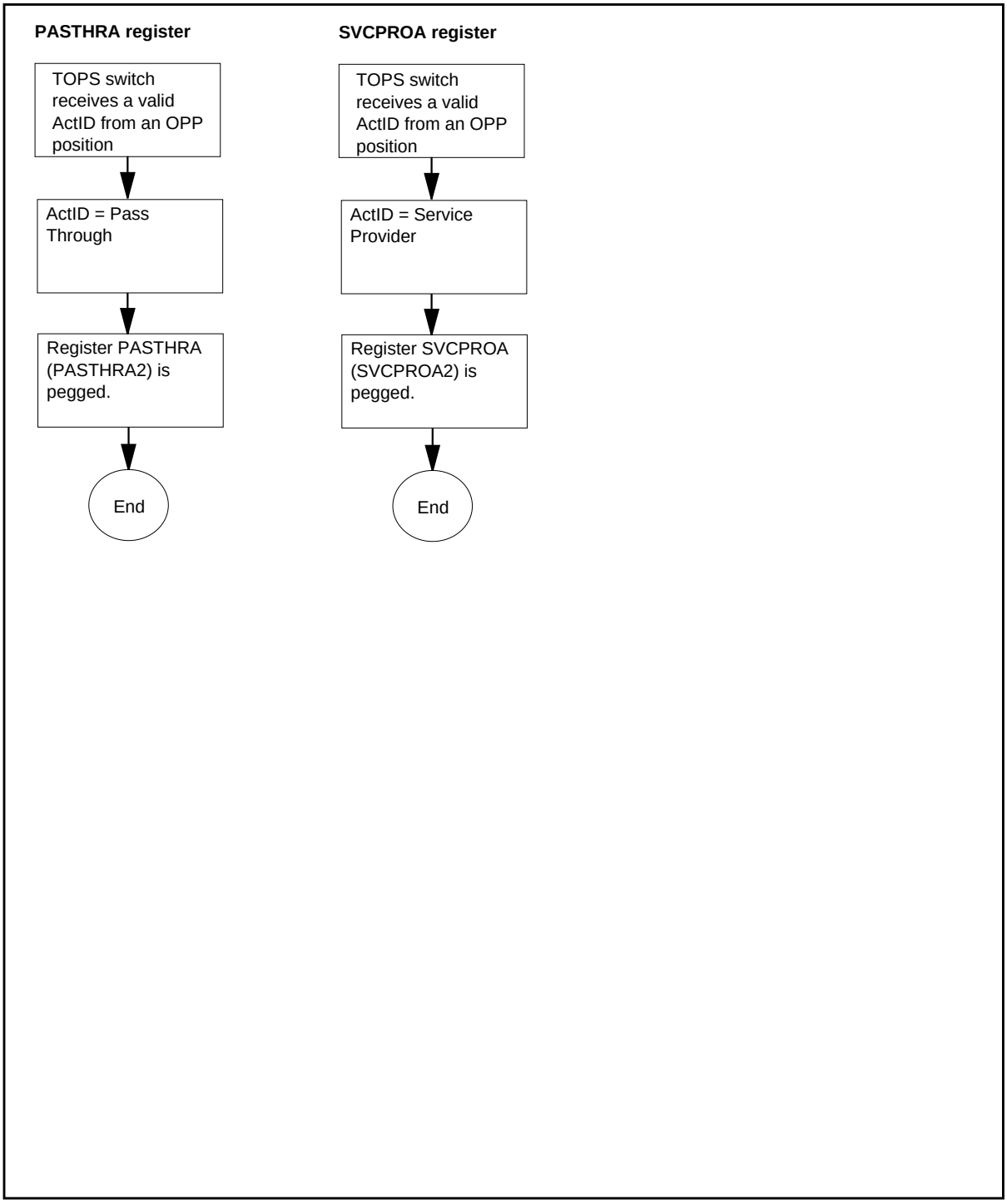


OM group TOPPACT3 registers (continued)



OM group TOPPACT3 (continued)

OM group TOPPACT3 registers (continued)



Register ALTDATA

Register Alternate Date ActID

Register ALTDATA counts the number of times the Alternate Date ActID is received from OPP positions.

Register ALTDATA release history

Register ALTDATA was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

ALTDATA2

Register ALTTIMA

Register Alternate Time ActID

Register ALTTIMA counts the number of times the Alternate Time ActID is received from OPP positions.

Register ALTTIMA release history

Register ALTTIMA was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

ALTTIMA2

Register ATTOPRA

Attached Operator ActID

The OPP position sends an Attached Operator ActID to the TOPS DMS switch to request an action regarding the attachment of a second operator to a call. ATTOPRA is incremented each time the OPP position sends this ActID.

OM group TOPPACT3 (continued)

Note: For test case(s), request general assistance, then Release Operator on an OPP position. Verify that this register is pegged.

Register ATTOPRA release history

ATTOPRA was introduced in NA005.

Associated registers

None

Associated logs

None

Extension registers

ATTOPRA2

Register BCDBA

Booked Call Database ActID

The OPP position sends a Booked Call Database ActID to the TOPS DMS switch to request interaction between the current call at the OPP position and the booked call database. BCDBA is incremented each time the OPP position sends this ActID.

Register BCDBA release history

BCDBA was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

BCDBA2

Register DATAA

Data ActID

The OPP position sends a Data ActID to the TOPS DMS switch. This ActID contains custom automatic message accounting (AMA) or context block

information. DATAA is incremented each time the OPP position sends this ActID.

Register DATAA release history

DATAA was introduced in NA006.

Associated registers

None

Associated logs

None

Extension registers

DATAA2

Register ESTDURA

Register Estimate Duration ActID

Register ESTDURA counts the number of times the Estimate Duration ActID is received from OPP positions.

Register ESTDURA release history

Register ESTDURA was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

ESTDURA2

Register FIXDURA

Fixed Duration ActID

The OPP position sends a Fixed Duration ActID to the TOPS DMS switch to request a change in the fixed duration status of the call. FIXDURA is incremented each time the OPP position sends this ActID.

Register FIXDURA release history

FIXDURA was introduced in BCS35.

OM group TOPPACT3 (continued)

Associated registers
None

Associated logs
None

Extension registers
FIXDURA2

Register FORASTA
Foreign Assistance ActID

The OPP position sends a Foreign Assistance ActID to the TOPS DMS switch when the operator requests that a foreign assistance number be associated with a call. FORASTA is incremented each time the OPP position sends this ActID.

Register FORASTA release history
FORASTA was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
FORASTA2

Register LNPREQA
Register LNP Request ActID

Register LNPREQA counts the number of times the LNP Request ActID is received from OPP positions.

Register LNPREQA release history
Register LNPREQA was introduced in TOPS07.

Associated registers
None

Associated logs
None

Extension registers

LNPREQA2

Register OTRIGRA

OSSAIN Trigger ActID

The OPP position sends an OSSAIN Trigger ActID to the TOPS DMS switch to set OSSAIN trigger information for the call. OTRIGRA is incremented each time the OPP position sends this ActID.

Register OTRIGRA release history

OTRIGRA was introduced in NA006.

Associated registers

None

Associated logs

None

Extension registers

OTRIGRA2

Register PASTHRA

Register Pass Through ActID

Register PASTHRA counts the number of times the Pass Through ActID is received from OPP positions.

Register PASTHRA release history

Register PASTHRA was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

PASTHRA2

Register QUERYQA

Query Queue Status by Queue ActID

OM group TOPPACT3 (continued)

The OPP position sends a Query Queue Status by Queue ActID to the TOPS DMS switch to query which call queues are causing a warning or alarm situation. QUERYQA is incremented each time the OPP position sends this ActID.

Register QUERYQA release history

QUERYQA was introduced in NA006.

Associated registers

None

Associated logs

None

Extension registers

QUERYQA2

Register SVCPROA

Service Provider ActID

The OPP position sends Service Provider ActID to the TOPS DMS switch. SVCPROA is incremented each time the OPP position sends the Service Provider ActID to the DMS switch.

Register SVCPROA release history

SVCPROA was introduced in TOPS09 by feature AF7133.

Associated registers

None

Associated logs

None

Extension registers

SVCPROA2

Register TKTNUMA

Ticket Number ActID

The OPP position sends a Ticket Number ActID to the TOPS DMS switch to request that the TOPS DMS switch clear, enter, or generate a ticket number for a call. TKTNUMA is incremented each time the OPP position sends this ActID.

OM group TOPPACT3 (end)

Register TKTNUMA release history

TKTNUMA was introduced in TOPS04.

Associated registers

None

Associated logs

None

Extension registers

TKTNUMA2

OM group TOPPACT4

OM description

Traffic Operator Position System (TOPS) Open Position Protocol (OPP) Action Identifiers (ActIDs) Group 4 (TOPPACT4)

TOPPACT4 is a continuation of OM groups TOPPACT1, TOPPACT2, and TOPPACT3. These OM groups count each type of OPP ActID received by the TOPS Digital Multiplex System (DMS) switch. The registers are only incremented when a valid ActID is received.

Open Position Protocol consists of ActIDs and Data Identifiers (DIDs) that are used to communicate between the TOPS DMS switch and the OPP positions. Open Position Protocol positions send ActIDs to the TOPS DMS switch to update both call information and other information. Usually, the TOPS DMS switch is required to perform a function as a result of receiving the ActID.

Release history

OM group TOPPACT3 was introduced in TOPS14.

Registers

OM group TOPPACT4 registers display on the MAP terminal as follows:

```
>OMSHOW TOPPACT4 ACTIVE

CLASS: ACTIVE
START: 1999/10/26 09:00:00 TUE; STOP:1999/10/26 09:15:03 TUE;
SLOWSAMPLES: 9; FASTSAMPLES: 90;

   CT4QA    CT4QA2
```

Group structure

OM group TOPPACT4 provides one tuple for each ActID included.

Key field:
0 switch-wide constant

Info field:
None

Associated OM groups

None

Associated functional groups

The following functional groups are associated with OM group TOPPACT4:

- OSB00001

Associated functionality codes

The functionality codes associated with OM group TOPPACT3 are shown in the following table:

Functionality	Code
TOPS Open Position Protocol	EWSS0004

OM group TOPPACT3 registers

Register CT4QA

Call Type for Queueing ActID

OM group TOPPACT4 (end)

Register CT4QA counts the number of times the CT4Q for the call is received from OPP positions.

Register CT4QA release history

Register CT4QA was introduced in TOPS14.

Associated registers

None

Associated logs

None

Extension registers

CT4QA2

OM group TOPPDID1

OM description

TOPS open position protocol data identifiers group 1

TOPPDID1 counts each type of open position protocol (OPP) data identifier (DID) sent from the TOPS DMS. The registers are only incremented when a valid DID is sent. OPP consists of ActIDs and DIDs used to communicate between the DMS and the operator positions. DIDs are sent from the DMS to the operator position to update both call information and other information.

Because of the large number of DIDs, all could not be included in one OM group. Groups TOPPDID2 through to TOPPDID5 are a continuation of this group.

Release history

OM group TOPPDID1 was introduced in BCS35.

Registers

OM group TOPPDID1 registers display on the MAP terminal as follows:

ACTQD	ACTQD2	ACTSD	ACTSD2
AMASTTD	AMASTTD2	AOPRIFD	AOPRIFD2
ATTOPRD	ATTOPRD2	AUDITD	AUDITD2
BCMSGD	BCMSGD2	AUTSRVD	AUTSRVD2
CARABD	CARABD2	CARINFD	CARINFD2
CARRATD	CARRATD2	CDBQD	CDBQD2
CHGADJD	CHGADJD2	CHGSD	CHGSD2
CHGSTTD	CHGSTTD2	CCARDD	CCARDD2

Group structure

OM group TOPPDID1 provides one tuple for each office.

Key field:
None

Info field:
None

Associated OM groups

TOPPDID2, TOPPDID3, TOPPDID4, TOPPDID5, and TOPPDID6.

Associated functional groups

None

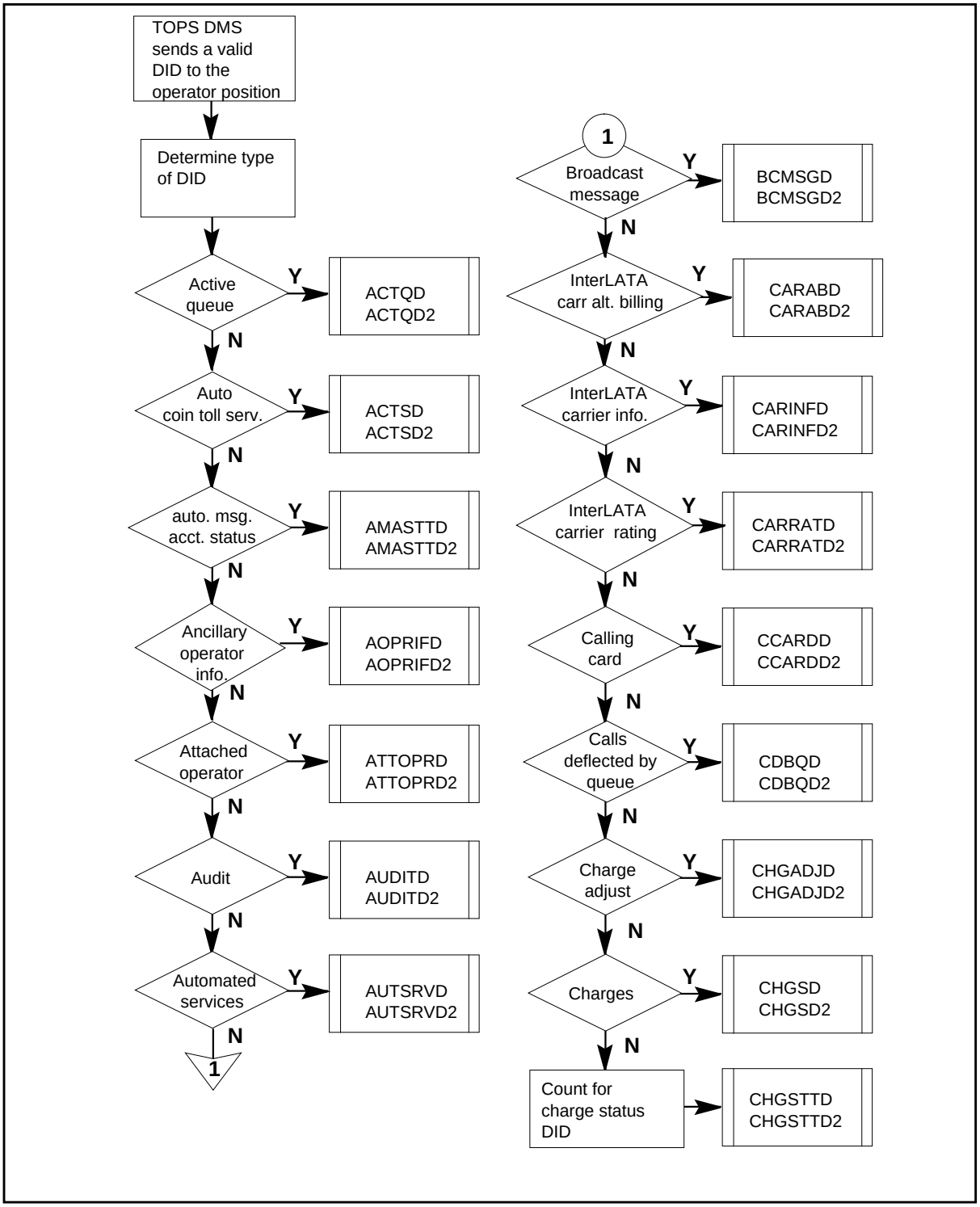
OM group TOPPDID1 (continued)

Associated functionality codes

The functionality codes associated with OM group TOPPDID1 are shown in the following table.

Functionality	Code
TOPS Open Position Protocol	NTXP49AA

OM group TOPPDID1 registers



OM group TOPPDID1 (continued)

Register ACTQD

Active Queue DID

ACTQD is incremented each time the DMS sends the Active Queue DID to the operator position.

Register ACTQD release history

ACTQD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

ACTQD2

Register ACTSD

Automatic Coin Toll Service (ACTS) DID

ACTSD is incremented each time the DMS sends the ACTS DID to the operator position.

Register ACTSD release history

ACTSD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

ACTSD2

Register AMASTTD

Automatic messaging accounting (AMA) Status DID

AMASTTD is incremented each time the DMS sends the AMA Status DID to the operator position.

Register AMASTTD release history

AMASTTD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

AMASTTD2

Register AOPRIFD

Ancillary Operator Information DID

AOPRIFD is incremented each time the DMS sends the Ancillary Operator Information DID to the operator position.

Register AOPRIFD release history

AOPRIFD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

AOPRIFD2

Register ATTOPRD

Attached Operator DID

ATTOPRD is incremented each time the DMS switch sends the Attached Operator DID to the operator position.

Register ATTOPRD release history

ATTOPRD was introduced in BCS35.

Associated registers

None

OM group TOPPDID1 (continued)

Associated logs
None

Extension registers
ATTOPRD2

Register AUDITD
Audit DID

AUDITD is incremented each time the DMS sends the Audit DID to the operator position.

Register AUDITD release history
AUDITD was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
AUDITD2

Register AUTSRVD
Automated Services DID

AUTSRVD is incremented each time the DMS sends the Automated Services DID to the operator position.

Register AUTSRVD release history
AUTSRVD was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
AUTSRVD2

Register BCMSGD

Broadcast Message DID

BCMSGD is incremented each time the DMS sends the Broadcast Message DID to the operator position.

Register BCMSGD release history

BCMSGD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

BCMSGD2

Register CARABD

Carrier Alternate Billing DID

CARABD is incremented each time the DMS sends the interlocal access and transport area (LATA) Carrier Alternate Billing DID to the operator position.

Register CARABD release history

CARABD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

CARABD2

Register CARINFD

Carrier Information DID

CARINFD is incremented each time the DMS sends the interlocal access and transport area (LATA) Carrier Information DID to the operator position.

OM group TOPPDID1 (continued)

Register CARINFD release history

CARINFD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

CARINFD2

Register CARRATD

Carrier Rating DID

CARRATD is incremented each time the DMS sends the interlocal access and transport area (LATA) Carrier Rating Status DID to the operator position.

Register CARRATD release history

CARRATD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

CARRATD2

Register CCARDD

Calling Card DID

CCARDD is incremented each time the DMS sends the Calling Card DID to the operator position.

Register CCARDD release history

CCARDD was introduced in BCS35.

Associated registers

None

Associated logs
None

Extension registers
CCARDD2

Register CDBQD
Calls Deflected by Queue DID

CDBQD is incremented each time the DMS sends the Calls Deflected by Queue DID to the operator position.

Register CDBQD release history
CDBQD was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
CDBDQ2

Register CHGADJD
Charge Adjust DID

CHGADJD is incremented each time the DMS sends the Charge Adjust DID to the operator position.

Register CHGADJD release history
CHGADJD was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
CHGADJD2

OM group TOPPDID1 (end)

Register CHGSD

Charges DID

CHGSD is incremented each time the DMS sends the Charges DID to the operator position.

Register CHGSD release history

CHGSD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

CHGSD2

Register CHGSTTD

Charge Status DID

CHGSTTD is incremented each time the DMS sends the Charge Status DID to the operator position.

Register CHGSTTD release history

CHGSTTD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

CHGSTTD2

OM group TOPPDID2

OM description

TOPS open position protocol data identifiers group 2

TOPPDID2 is a continuation of TOPPDID1. These groups count each type of open position protocol (OPP) data identifier (DID) sent from the TOPS DMS switch. The registers are only incremented when a valid DID is sent. OPP consists of ActIDs and DIDs used to communicate between the DMS switch and the operator positions. DIDs are sent from the DMS switch to the operator position to update both call information and other information.

Release history

OM group TOPPDID2 was introduced in BCS35.

Registers

OM group TOPPDID2 registers display on the MAP terminal as follows:

CLSCHGD	CLSCHGD2	CORIGD	CORIGD2
CQUEDD	CQUEDD2	CSERVD	CSERVD2
CTRAFD	CTRAFD2	CWBQD	CWBQD2
CWAITD	CWAITD2	DRATED	DRATED2
DIRNUMD	DIRNUMD2	ELPTIMD	ELPTIMD2
FORCCD	FORCCD2	HANDD	HANDD2
LANGD	LANGD2	LATAD	LATAD2
LIDBRD	LIDBRD2	LOGDEND	LOGDEND2

Group structure

OM group TOPPDID2 provides one tuple for each office.

Key field:
None

Info field:
None

Associated OM groups

TOPPDID1, TOPPDID3, TOPPDID4, TOPPDID5, and TOPPDID6

Associated functional groups

None

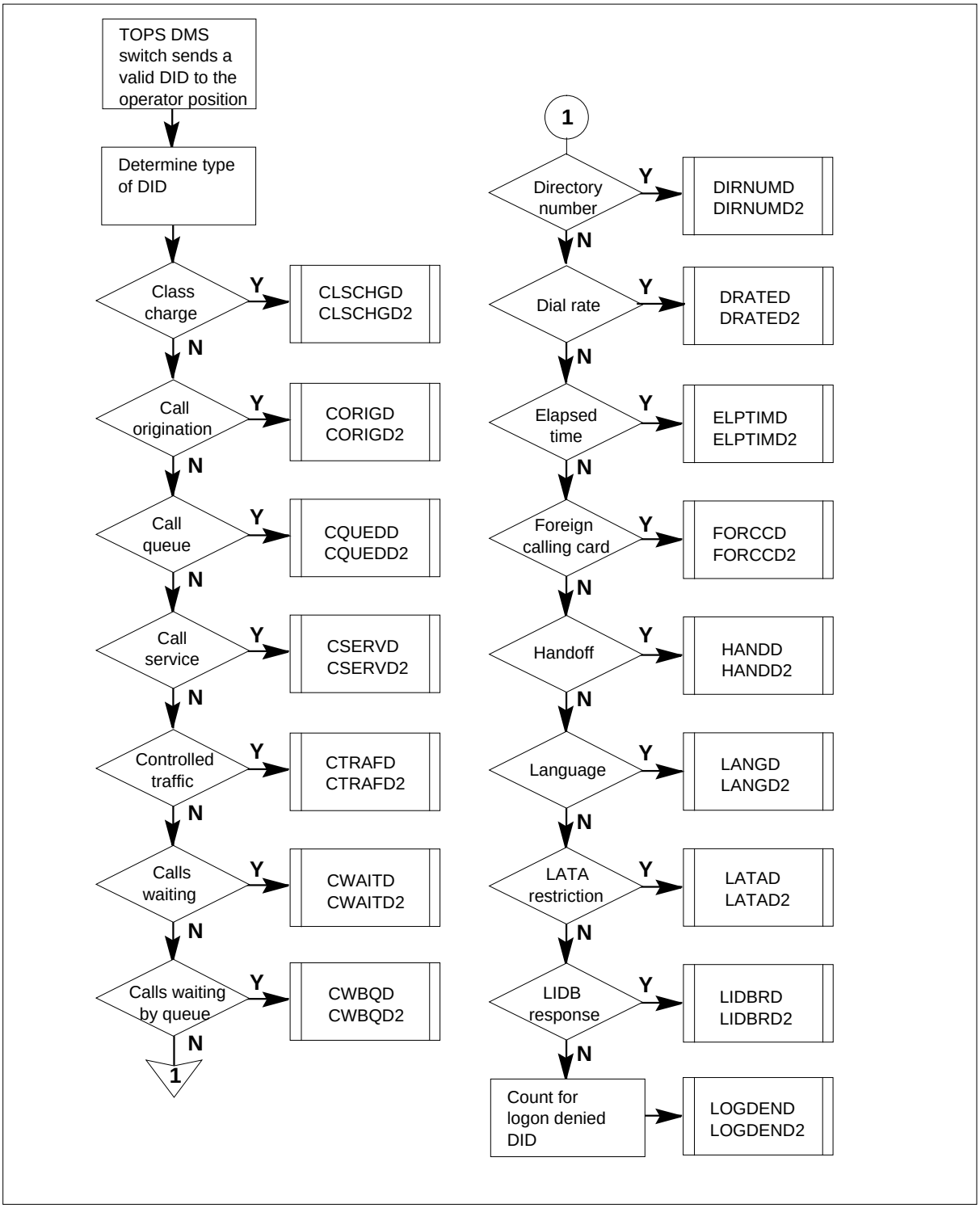
OM group TOPPDID2 (continued)

Associated functionality codes

The functionality codes associated with OM group TOPPDID2 are shown in the following table.

Functionality	Code
TOPS Open Position Protocol	NTXP49AA

OM group TOPPDID2 registers



OM group TOPPDID2 (continued)

Register CLSCHGD

Class Charge DID

CLSCHGD is incremented each time the DMS switch sends the Class Charge DID to the operator position.

Register CLSCHGD release history

CLSCHGD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension register

CLSCHGD2

Register CORIGD

Call Origination DID

CORIGD is incremented each time the DMS switch sends the Call Origination DID to the operator position.

Register CORIGD release history

CORIGD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension register

CORIGD2

Register CQUEDD

Call Queue DID

CQUEDD is incremented each time the DMS switch sends the Call Queue DID to the operator position.

Register CQUEDD release history

CQUEDD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension register

CQUEDD2

Register CSERVD

Call Service DID

CSERVD is incremented each time the DMS switch sends the Call Service DID to the operator position.

Register CSERVD release history

CSERVD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension register

CSERVD2

Register CTRAFD

Controlled Traffic DID

CTRAFD is incremented each time the DMS switch sends the Controlled Traffic DID to the operator position.

Register CTRAFD release history

CTRAFD was introduced in BCS35.

Associated registers

None

OM group TOPPDID2 (continued)

Associated logs
None

Extension register
CTRAFD2

Register CWAITD
Calls Waiting DID

CWAITD is incremented each time the DMS switch sends the Calls Waiting DID to the operator position.

Register CWAITD release history
CWAITD was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension register
CWAITD2

Register CWBQD
Calls Waiting by Queue DID

CWBQD is incremented each time the DMS switch sends the Calls Waiting by Queue DID to the operator position.

Register CWBQD release history
CWBQD was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension register
CWBQD2

Register DIRNUMD

Directory Number DID

DIRNUMD is incremented each time the DMS switch sends the Directory Number DID to the operator position.

Register DIRNUMD release history

DIRNUMD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension register

DIRNUMD2

Register DRATED

Dial Rate DID

DRATED is incremented each time the DMS switch sends the Dial Rate DID to the operator position.

Register DRATED release history

DRATED was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension register

DRATED2

Register ELPTMID

Elapsed Time DID

ELPTIMD is incremented each time the DMS switch sends the Elapsed Time DID to the operator position.

OM group TOPPDID2 (continued)

Register ELPTIMD release history

ELPTIMD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension register

ELPTIMD2

Register FORCCD

Foreign Calling Card DID

FORCCD is incremented each time the DMS switch sends the Foreign Calling Card DID to the operator position.

Register FORCCD release history

FORCCD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension register

FORCCD2

Register HANDD

Handoff DID

HANDD is incremented each time the DMS switch sends the Handoff DID to the operator position.

Register HANDD release history

HANDD was introduced in BCS35.

Associated registers

None

Associated logs
None

Extension register
HANDD2

Register LANGD
Language DID

LANGD is incremented each time the DMS switch sends the Language DID to the operator position.

Register LANGD release history
LANGD was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension register
LANGD2

Register LATAD
Local access and transport area (LATA) Restriction DID

LATAD is incremented each time the DMS switch sends the LATA Restriction DID to the operator position.

Register LATAD release history
LATAD was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension register
LATAD2

OM group TOPPDID2 (end)

Register LIDBRD

Line information data bases (LIDB) Response DID

LIDBRD is incremented each time the DMS switch sends the LIDB Response DID to the operator position.

Register LIDBIRD release history

LIDBRD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension register

LIDBRD2

Register LOGDEND

Logon Denied DID

LOGDEND is incremented each time the DMS switch sends the Logon Denied DID to the operator position.

Register LOGDEND release history

LOGDEND was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension register

LOGDEND2

OM group TOPPDID3

OM description

TOPS open position protocol data identifiers group 3

TOPPDID3 is a continuation of TOPPDID1. These groups count each type of open position protocol (OPP) data identifier (DID) sent from the TOPS DMS. The registers are only incremented when a valid DID is sent. OPP consists of ActIDs and DIDs used to communicate between the DMS and the operator positions. DIDs are sent from the DMS to the operator position to update both call information and other information.

Release history

OM group TOPPDID3 was introduced in BCS35.

Registers

OM group TOPPDID3 registers display on the MAP terminal as follows:

LOGSUCD	LOGSUCD2	LOOPSTD	LOOPSTD2
MOND	MOND2	NETACTD	NETACTD2
NOACTD	NOACTD2	NFYD	NFYD2
OIAD	OIAD2	OPRADMD	OPRADMD2
OPRFBD	OPRFBD2	OPRMAND	OPRMAND2
OPRSSPD	OPRSSPD2	CT4QD	CT4QD2
PAGINGD	PAGINGD2	PASSWDD	PASSWDD2
PCBD	PCBD2	PORTSTD	PORTSTD2

Group structure

OM group TOPPDID3 provides one tuple per office.

Key field:
None

Info field:
None

Associated OM groups

TOPPDID1, TOPPDID2, TOPPDID4, TOPPDID5, and TOPPDID6.

Associated functional groups

None

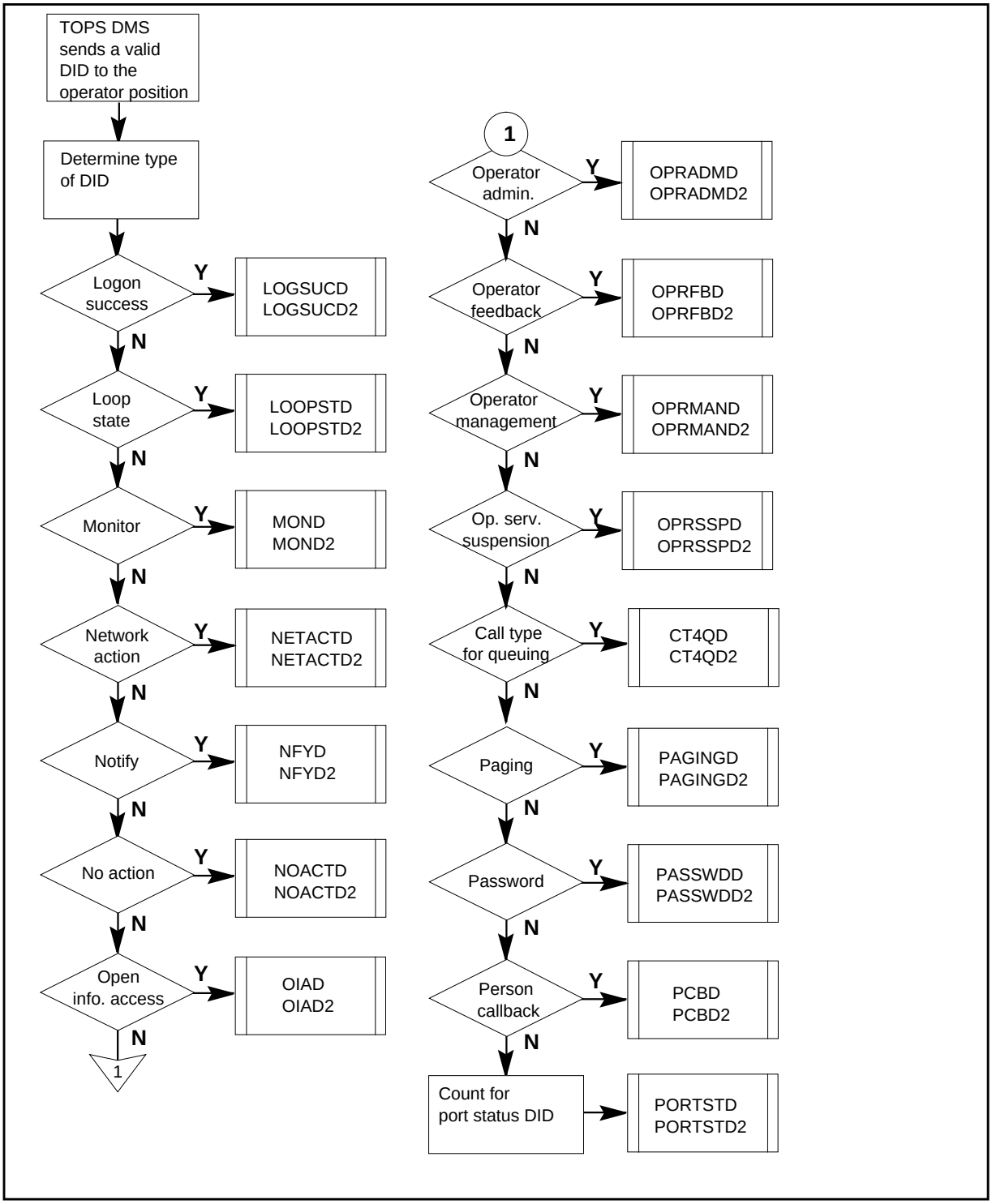
OM group TOPPDID3 (continued)

Associated functionality codes

The functionality codes associated with OM group TOPPDID3 are shown in the following table.

Functionality	Code
TOPS Open Position Protocol	NTXP49AA

OM group TOPPDID3 registers



OM group TOPPDID3 (continued)

Register CT4QD

Call Type for Queuing DID

CT4QD is incremented each time the DMS sends the Call Type for Queuing DID to the operator position.

Register CT4QD release history

CT4QD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

CT4QD2

Register LOGSUCD

Logon Success DID

LOGSUCD is incremented each time the DMS sends the Logon Success DID to the operator position.

Register LOGSUCD release history

LOGSUCD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

LOGSUCD2

Register LOOPSTD

Loop State DID

LOOPSTD is incremented each time the DMS sends the Loop State DID to the operator position.

Register LOOPSTD release history

LOOPSTD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

LOOPSTD2

Register MOND

Monitor DID

MOND is incremented each time the DMS sends the Monitor DID to the operator position.

Register MOND release history

MOND was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

MOND2

Register NETACTD

Network Action DID

NETACTD is incremented each time the DMS sends the Network Action DID to the operator position.

Register NETACTD release history

NETACTD was introduced in BCS35.

Associated registers

None

OM group TOPPDID3 (continued)

Associated logs
None

Extension registers
NETACTD2

Register NOACTD
No Action DID

NOACTD is incremented each time the DMS sends the No Action DID to the operator position.

Register NOACTD release history
NOACTD was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
NOACTD2

Register NFYD
Notify DID

NFYD is incremented each time the DMS sends the Notify DID to the operator position.

Register NFYD release history
NFYD was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
NFYD2

Register OIAD

Open Information Access DID

OIAD is incremented each time the DMS sends the Open Information Access DID to the operator position.

Register OIAD release history

OIAD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

OIAD2

Register OPRADMD

Operator Administration DID

OPRADMD is incremented each time the DMS sends the Operator Administration DID to the operator position.

Register OPRADMD release history

OPRADMD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

OPRADMD2

Register OPRFBD

Operator Feedback DID

OPRFBD is incremented each time the DMS sends the Operator Feedback DID to the operator position.

OM group TOPPDID3 (continued)

Register OPRFBD release history

OPRFBD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

OPRFBD2

Register OPRMAND

Operator Management DID

OPRMAND is incremented each time the DMS sends the Operator Management DID to the operator position.

Register OPRMAND release history

OPRMAND was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

OPRMAND2

Register OPRSSPD

Operator Services Suspension DID

OPRSSPD is incremented each time the DMS sends the Operator Services Suspension DID to the operator position.

Register OPRSSPD release history

OPRSSPD was introduced in BCS35.

Associated registers

None

Associated logs
None

Extension registers
OPRSSPD2

Register PAGINGD
Paging DID

PAGINGD is incremented each time the DMS sends the Paging DID to the operator position.

Register PAGINGD release history
PAGINGD was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
PAGINGD2

Register PASSWDD
Password DID

PASSWDD is incremented each time the DMS sends the Password DID to the operator position.

Register PASSWDD release history
PASSWDD was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
PASSWDD2

OM group TOPPDID3 (end)

Register PCBD

Person Call-back DID

PCBD is incremented each time the DMS sends the Person Call-back DID to the operator position.

Register PCBD release history

PCBD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

PCBD2

Register PORTSTD

Port Status DID

PORTSTD is incremented each time the DMS sends the Port Status DID to the operator position.

Register PORTSTD release history

PORTSTD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

PORTSTD2

OM group TOPPDID4

OM description

TOPS open position protocol data identifiers group 4

TOPPDID4 is a continuation of TOPPDID1. These groups count each type of open position protocol (OPP) data identifier (DID) sent from the TOPS DMS. The registers are only incremented when a valid DID is sent. OPP consists of ActIDs and DIDs used to communicate between the DMS and the operator positions. DIDs are sent from the DMS to the operator position to update both call information and other information.

Release history

OM group TOPPDID4 was introduced in BCS35.

Registers

OM group TOPPDID4 registers display on the MAP terminal as follows:

POSDATD	POSDATD2	POSSTD	POSSTD2
QUERYD	QUERYD2	RATESTD	RATESTD2
SRVBLLD	SRVBLLD2	SRVCIDD	SRVCIDD2
SRVLOGD	SRVLOGD2	SRVOPTD	SRVOPTD2
SRVVRD	SRVVRD2	STACLSD	STACLSD2
SYSTIMD	SYSTIMD2	TACD	TACD2
TEXTD	TEXTD2	TONED	TONED2
TRBLCDD	TRBLCDD2	TSTATD	TSTATD2

Group structure

OM group TOPPDID4 provides one tuple per office.

Key field:
None

Info field:
None

Associated OM groups

TOPPDID1, TOPPDID2, TOPPDID3, TOPPDID5, and TOPPDID6.

Associated functional groups

None

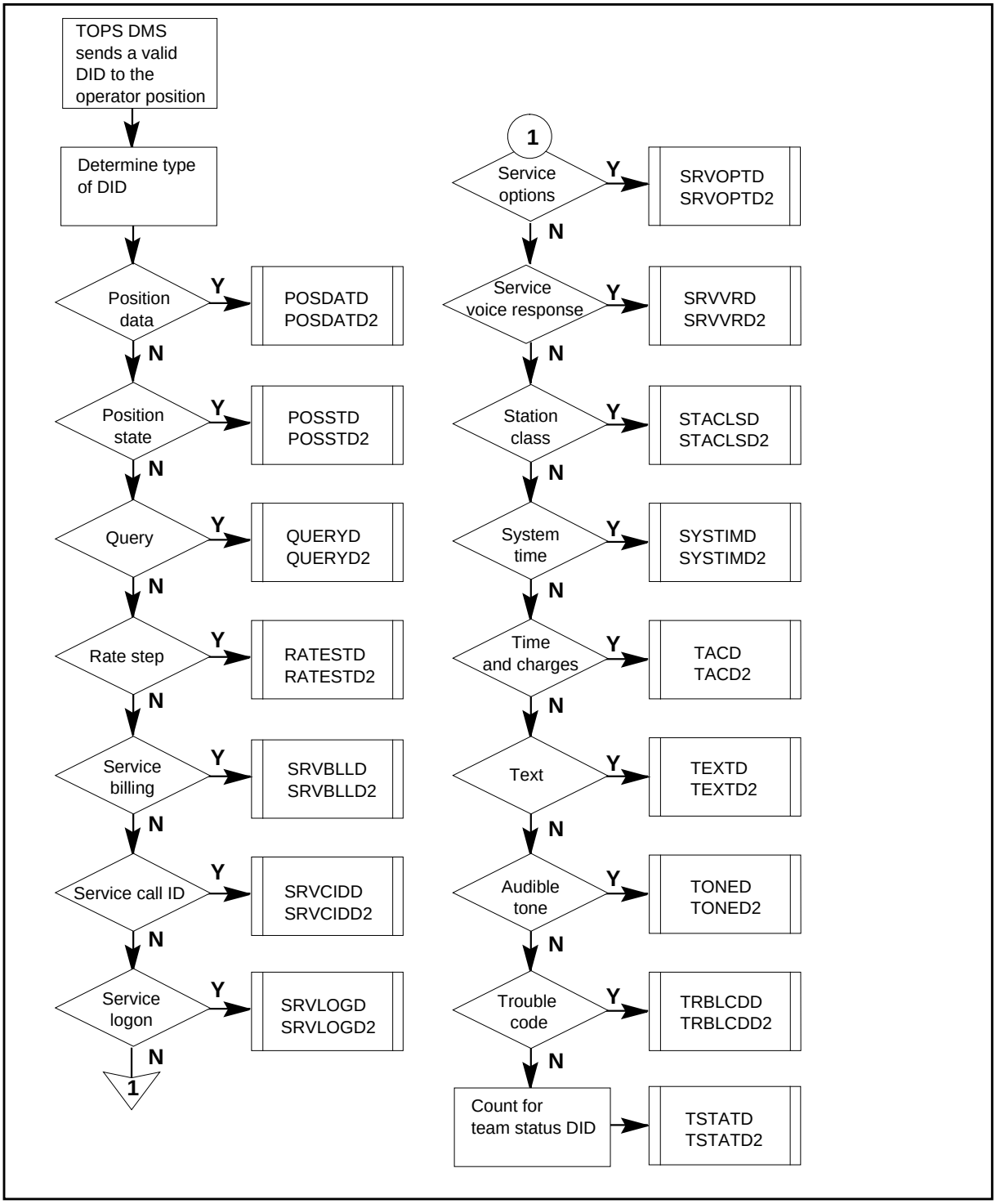
OM group TOPPDID4 (continued)

Associated functionality codes

The functionality codes associated with OM group TOPPDID4 are shown in the following table.

Functionality	Code
TOPS Open Position Protocol	NTXP49AA

OM group TOPPDID4 registers



OM group TOPPDID4 (continued)

Register POSDATD

Position Data DID

POSDATD is incremented each time the DMS sends the Position Data DID to the operator position.

Register POSDATD release history

POSDATD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

POSDATD2

Register POSSTD

Position State DID

POSSTD is incremented each time the DMS sends the Position State DID to the operator position.

Register POSSTD release history

POSSTD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

POSSTD2

Register QUERYD

Query DID

QUERYD is incremented each time the DMS sends the Query DID to the operator position.

Register QUERYD release history

QUERYD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

QUERYD2

Register RATESTD

Rate Step DID

RATESTD is incremented each time the DMS sends the Rate Step DID to the operator position.

Register RATESTD release history

RATESTD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

RATESTD2

Register SRVBLLD

Service Billing DID

SRVBLLD is incremented each time the DMS sends the Service Billing DID to the operator position.

Register SRVBLLD release history

SRVBLLD was introduced in BCS35.

Associated registers

None

OM group TOPPDID4 (continued)

Associated logs
None

Extension registers
SRVBLLD2

Register SRVCIDD
Service Call Identification DID

SRVCIDD is incremented each time the DMS sends the Service Call Identification DID to the operator position.

Register SRVCIDD release history
SRVCIDD was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
SRVCIDD2

Register SRVLOGD
Service Logon DID

SRVLOGD is incremented each time the DMS sends the Service Logon DID to the operator position.

Register SRVLOGD release history
SRVLOGD was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
SRVLOGD2

Register SRVOPTD

Service Options DID

SRVOPTD is incremented each time the DMS sends the Service Options DID to the operator position.

Register SRVOPTD release history

SRVOPTD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

SRVOPTD2

Register SRVVRD

Service Voice Response DID

SRVVRD is incremented each time the DMS sends the Service Voice Response DID to the operator position.

Register SRVVRD release history

SRVVRD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

SRVVRD2

Register STACLSD

Station Class DID

STACLSD is incremented each time the DMS sends the Station Class DID to the operator position.

OM group TOPPDID4 (continued)

Register STACLSD release history

STACLSD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

STACLSD2

Register SYSTIMD

System Time DID

SYSTIMD is incremented each time the DMS sends the System Time DID to the operator position.

Register SYSTIMD release history

SYSTIMD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

SYSTIMD2

Register TACD

Time and Charges DID

TACD is incremented each time the DMS sends the Time and Charges DID to the operator position.

Register TACD release history

TACD was introduced in BCS35.

Associated registers

None

Associated logs
None

Extension registers
TACD2

Register TEXTD
Text DID

TEXTD is incremented each time the DMS sends the Text DID to the operator position.

Register TEXTD release history
TEXTD was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
TEXTD2

Register TONED
Audible Tone DID

TONED is incremented each time the DMS sends the Audible Tone DID to the operator position.

Register TONED release history
TONED was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
TONED2

OM group TOPPDID4 (end)

Register TRBLCDD

Trouble Code DID

TRBLCDD is incremented each time the DMS sends the Trouble Code DID to the operator position.

Register TRBLCDD release history

TRBLCDD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

TRBLCDD2

Register TSTATD

Team Status DID

TSTATD is incremented each time the DMS sends the Team Status DID to the operator position.

Register TSTATD release history

TSTATD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

TSTATD2

OM group TOPPDID5

OM description

Traffic Operator Position System (TOPS) Open Position Protocol (OPP) Data Identifiers (DID) Group 5 (TOPPDID5)

TOPPDID5 is a continuation of TOPPDID1. These groups contain registers that count each type of OPP DID sent from the TOPS DMS switch. The registers are only incremented when the TOPS DMS switch sends a valid DID. Open position protocol consists of Action Identifiers (ActID) and DIDs used to communicate between the TOPS DMS switch and the OPP positions. The TOPS DMS switch sends DIDs to the OPP positions to update both call information and other information.

Release history

OM group TOPPDID5 was introduced in BCS35.

NA006

Functional group Alternate Billing Services (ABS00001) introduces registers OLNSIND and OLNSIND2 through the TOPS Originating Line Number Screening (OLNS) Interface (ABS00012) functionality.

Functional group Enhanced Services (ENSV0001) introduces registers DATAD, OINFOD, and OTRIGRD through the Operator Services Advanced Intelligent Network (AIN) (ENSV0014) functionality.

Descriptions are added for existing registers TKTNUMD and DBQRYD.

NA005

Registers CTRYNMD and CTRYNMD2 are added.

TOPS04

Registers DBQRYD, DBQRYD2, TKTNUMD, and TKTNUMD2 are added.

Registers

OM group TOPPDID5 registers display on the MAP terminal as follows:

OM group TOPPDID5 (continued)

```
>OMSHOW TOPPDID5 ACTIVE

TOPPDID5

CLASS: ACTIVE
START:1995/04/07 16:00:00 FRI; STOP: 1995/04/07 16:04:31 FRI;
SLOWSAMPLES:         3 ; FASTSAMPLES:         27 ;

   XFROPRD       XFROPRD2         OPRQPRD      OPRQPRD2
   ALTRTED       ALTRTED2         DBACTD       DBACTD2
   DBCLASD       DBCLASD2         DBNUMD       DBNUMD2
   FIXDURD       FIXDURD2         FORASTD      FORASTD2
   POSINFD       POSINFD2         TKTNUMD      TKTNUMD2
   DBQRYD        DBQRYD2          DATAD        DATAD2
   OINFOD        OINFOD2          OTRIGRD      OTRIGRD2
   CTRYNMD       CTRYNMD2         OLNSIND      OLNSIND2
 0      0             0               0            0
        0             0               0            0
        0             0               0            0
        0             0               0            0
       10             0               0            0
        0             0               0            0
        0             0               0            0
        0             0              30            0
```

Group structure

OM group TOPPDID5 provides one tuple for each office.

Key field:
None

Info field:
None

Associated OM groups

TOPPDID1, TOPPDID2, TOPPDID3, TOPPDID4, and TOPPDID6.

Associated functional groups

The following functional groups are associated with OM group TOPPDID5:

- ABS00001
- ENSV0001
- EWSS0001

OM group TOPPDID5 (continued)

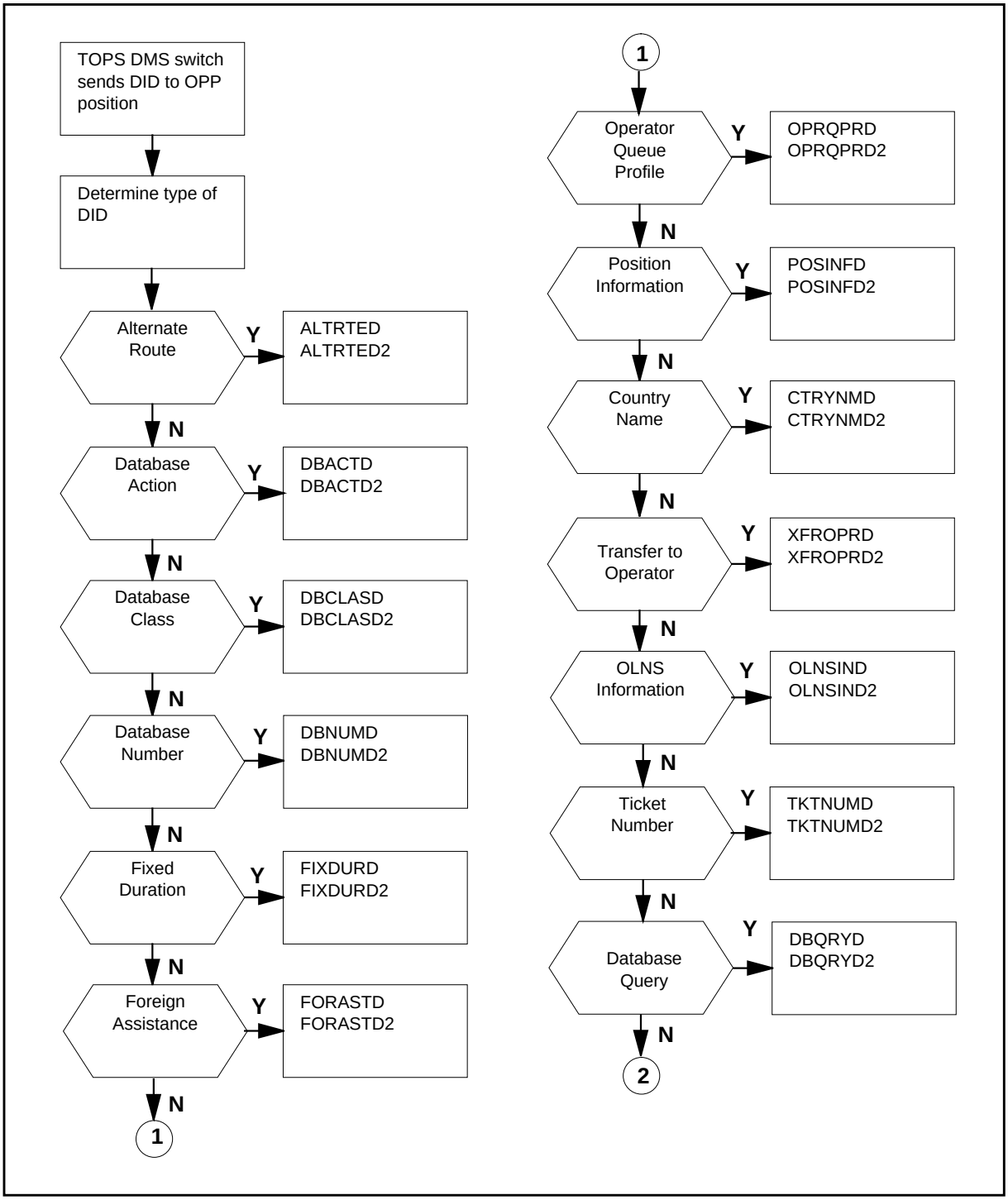
Associated functionality codes

The functionality codes associated with OM group TOPPDID5 are shown in the following table:

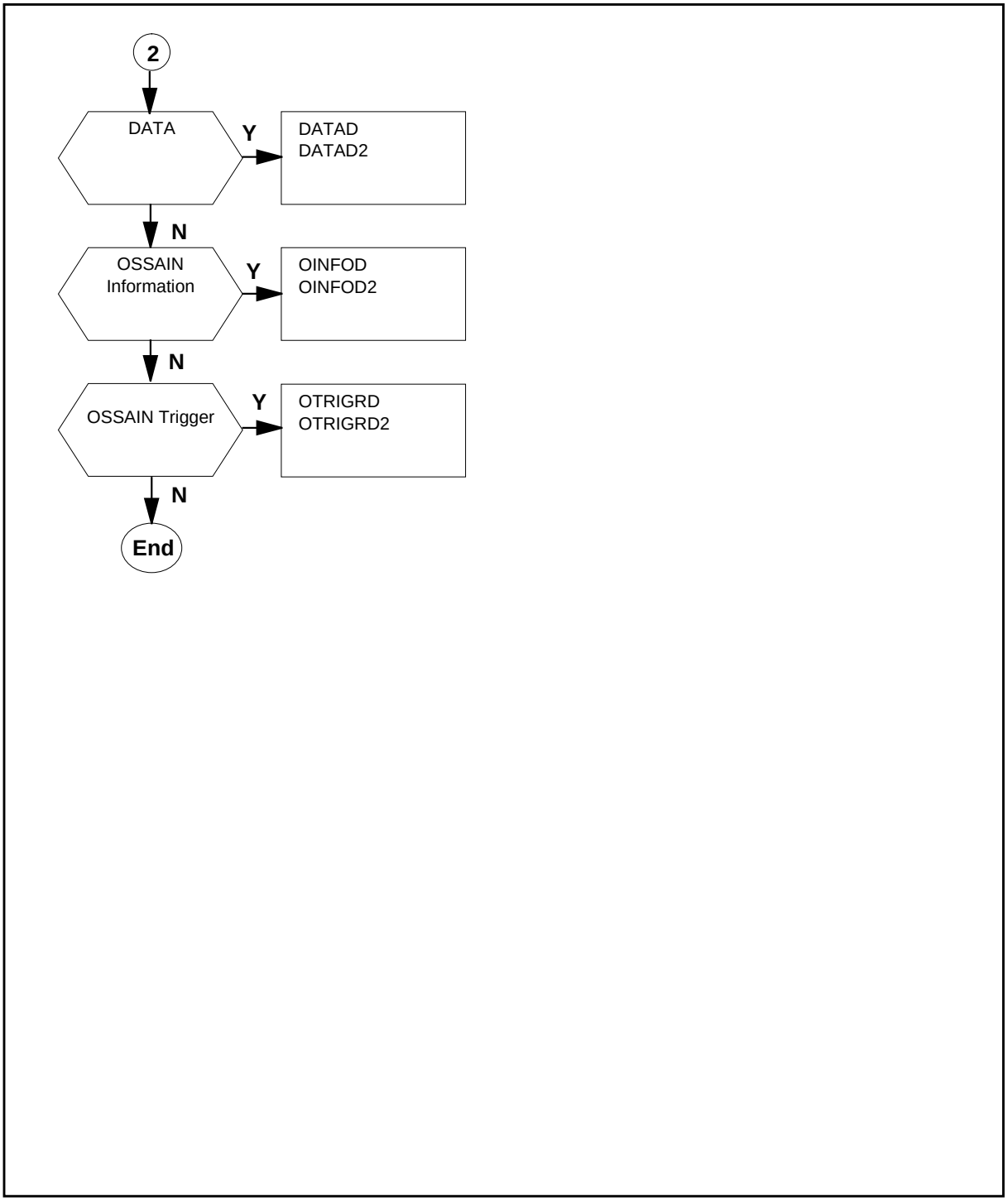
Functionality	Code
TOPS OLNS Interface	ABS00012
TOPS Open Position Protocol	EWSS0004
Operator Services AIN	ENSV0014

OM group TOPPDID5 (continued)

OM group TOPPDID5 registers



OM group TOPPDID5 registers (continued)



OM group TOPPDID5 (continued)

Register ALTRTED

Alternate Route DID

ALTRTED is incremented each time the TOPS DMS switch sends the Alternate Route DID to an OPP position.

Register ALTRTED release history

ALTRTED was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

ALTRTED2

Register CTRYNMD

Country Name DID

CTRYNMD is incremented each time the TOPS DMS switch sends the Country Name DID to an OPP position.

Register CTRYNMD release history

CTRYNMD was introduced in NA005.

Associated registers

None

Associated logs

None

Extension registers

CTRYNMD2

Register DATAD

Data DID

DATAD is incremented each time the TOPS DMS switch sends the Data DID to an OPP position.

Register DATAD release history

DATAD was introduced in NA006.

Associated registers

None

Associated logs

None

Extension registers

DATAD2

Register DBACTD

Database Action DID

DBACTD is incremented each time the TOPS DMS switch sends the Database Action DID to an OPP position.

Register DBACTD release history

DBACTD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

DBACTD2

Register DBCLASD

Database Class DID

DBCLASD is incremented each time the TOPS DMS switch sends the Database Class DID to an OPP position.

Register DBCLASD release history

DBCLASD was introduced in BCS35.

Associated registers

None

OM group TOPPDID5 (continued)

Associated logs
None

Extension registers
DBCLASD2

Register DBNUMD
Database Number DID

DBNUMD is incremented each time the TOPS DMS switch sends the Database Number DID to an OPP position. This event occurs when a call is retrieved from the booked call database using the serial number.

Register DBNUMD release history
DBNUMD was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
DBNUMD2

Register DBQRYD
Database Query DID

DBQRYD is incremented each time the TOPS DMS switch sends the Database Query DID to an OPP position.

Register DBQRYD release history
DBQRYD was introduced in TOPS04.

Associated registers
None

Associated logs
None

Extension registers
DBQRYD2

Register FIXDURD

Fixed Duration DID

FIXDURD is incremented each time the TOPS DMS switch sends the Fixed Duration DID to an OPP position.

Register FIXDURD release history

FIXDURD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

FIXDURD2

Register FORASTD

Foreign Assistance DID

FORASTD is incremented each time the TOPS DMS switch sends the Foreign Assistance DID to an OPP position.

Register FORASTD release history

FORASTD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

FORASTD2

Register OINFOD

Operator Services System Advanced Intelligent Network (OSSAIN) Information DID

OINFOD is incremented each time the TOPS DMS switch sends the OSSAIN Information DID to an OPP position.

OM group TOPPDID5 (continued)

Register OINFOD release history

OINFOD was introduced in NA006.

Associated registers

None

Associated logs

None

Extension registers

OINFOD2

Register OLNSIND

Register OLNS Information DID

OLNSIND is incremented each time the TOPS DMS switch sends the OLNS Information DID to an OPP position.

Register OLNSIND release history

OLNSIND was introduced in NA006.

Associated registers

None

Associated logs

None

Extension registers

OLNSIND2

Register OPRQPRD

Operator Queue Profile DID

OPRQPRD is incremented each time the TOPS DMS switch sends the Operator Queue Profile DID to an OPP position.

Register OPRQPRD release history

OPRQPRD was introduced in BCS35.

Associated registers

None

Associated logs
None

Extension registers
OPRQPRD2

Register OTRIGRD
OSSAIN Trigger DID

OTRIGRD is incremented each time the TOPS DMS switch sends the OSSAIN Trigger DID to an OPP position.

Register OTRIGRD release history
OTRIGRD was introduced in NA006.

Associated registers
None

Associated logs
None

Extension registers
OTRIGRD2

Register POSINFD
Position Information DID

POSINFD is incremented each time the TOPS DMS switch sends the Position Information DID to an OPP position.

Register POSINFD release history
POSINFD was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
POSINFD2

OM group TOPPDID5 (end)

Register TKTNUMD

Ticket Number DID

TKTNUMD is incremented each time the TOPS DMS switch sends the Ticket Number DID to an OPP position.

Register TKTNUMD release history

TKTNUMD was introduced in TOPS04.

Associated registers

None

Associated logs

None

Extension registers

TKTNUMD2

Register XFROPRD

Transfer to Operator DID

XFROPRD is incremented each time the TOPS DMS switch sends the Transfer to Operator DID to an OPP position.

Register XFROPRD release history

XFROPRD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

XFROPRD2

OM group TOPPDID6

OM description

Traffic Operator Position System (TOPS) Open Position Protocol (OPP) Data Identifiers (DIDs) Group 6 (TOPPDID6)

TOPPDID6 is a continuation of OM groups TOPPDID1 through TOPPDID5. These groups contain registers that count each type of OPP DID sent from the TOPS DMS switch. The registers are only incremented when the TOPS DMS switch sends a valid DID.

Open Position Protocol consists of Action Identifiers (ActIDs) and DIDs used to communicate between the TOPS DMS switch and the OPP positions. The TOPS DMS switch sends DIDs to the OPP positions to update both call information and other information.

Release history

TOPS15

Register ARRTOND is added by feature 59006658.

TOPS14

Register GENDIGD is added.

TOPS07

Eight new registers added: ALTDATD, ALTTIMD, ESTCHGD, ESTDURD, LRNINFD, PASTHRD, SVCPROD, and SYSSTTD.

NA006

Functional group Advanced Queuing (ADVQ0001) introduces OM group TOPPDID6 through the Queue Management System (QMS) Customer Service Enhancements (ADVQ0006) functionality.

Registers

OM group TOPPDID6 registers display on the MAP terminal as follows:

OM group TOPPDID6 (continued)

```
>OMSHOW TOPPDID6 ACTIVE

CLASS: ACTIVE
START:1995/04/07 16:00:00 FRI; STOP:1995/04/07 16:04:31 FRI;
SLOWSAMPLES:         3 ; FASTSAMPLES:         27 ;

    QSTATD        QSTATD2        QSTATQD        QSTATQD2
   OFCCOND       OFCCOND2       LRNINFD        LRNINFD2
   ALTDATD       ALTDATD2       ALTTIMD        ALTTIMD2
   ESTDURD       ESTDURD2       ESTCHGD        ESTCHGD2
   PASTHRD       PASTHRD2       SVCPROD        SVCPROD2
   SYSSTTD       SYSSTTD2       INTNETD        INTNETD2
   GENDIGD       GENDIGD2       ARRTOND        ARRTOND2
      0             0              0              0
      0             0              0              0
      0             0              0              0
      0             0              0              0
      0             0              0              0
      0             0              0              0
      0             0              0              0
```

Group structure

OM group TOPPDID6 provides one tuple per office.

Key field:
None

Info field:
None

Associated OM groups

The following OM groups peg counts for the TOPS OPP ActIDs and are associated with TOPPDID6:

- TOPPACT1
- TOPPACT2
- TOPPACT3

The following OM groups peg counts for the TOPS OPP DIDs and are associated with TOPPDID6:

- TOPPDID1
- TOPPDID2

- TOPPDID3
- TOPPDID4
- TOPPDID5

TOPPMSG peg counts for TOPS OPP message types and is associated with TOPPDID6.

Associated functional groups

The following functional groups are associated with OM group TOPPDID6:

- ADVQ0001
- EWSS0001

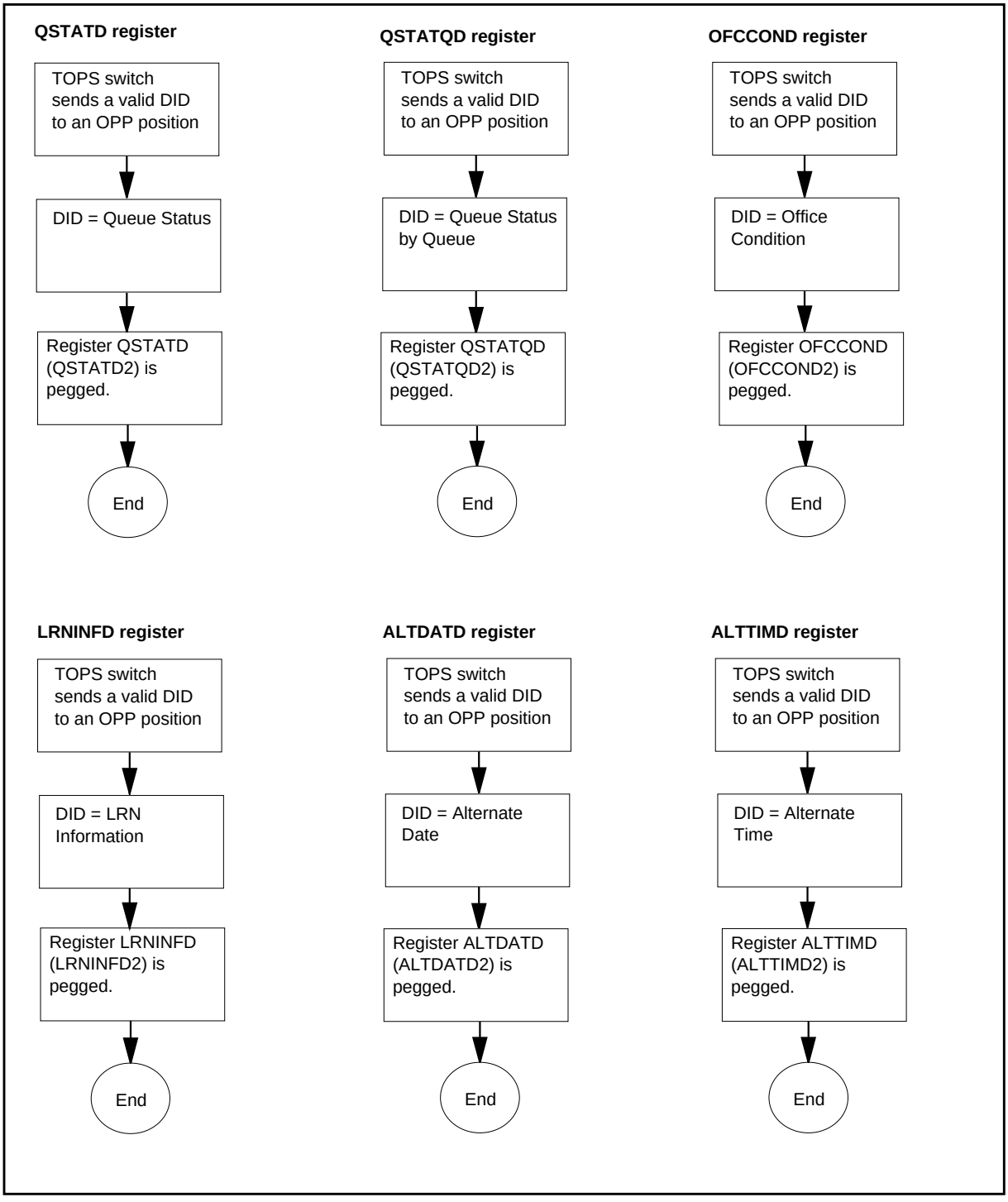
Associated functionality codes

The functionality codes associated with OM group TOPPDID6 are shown in the following table.

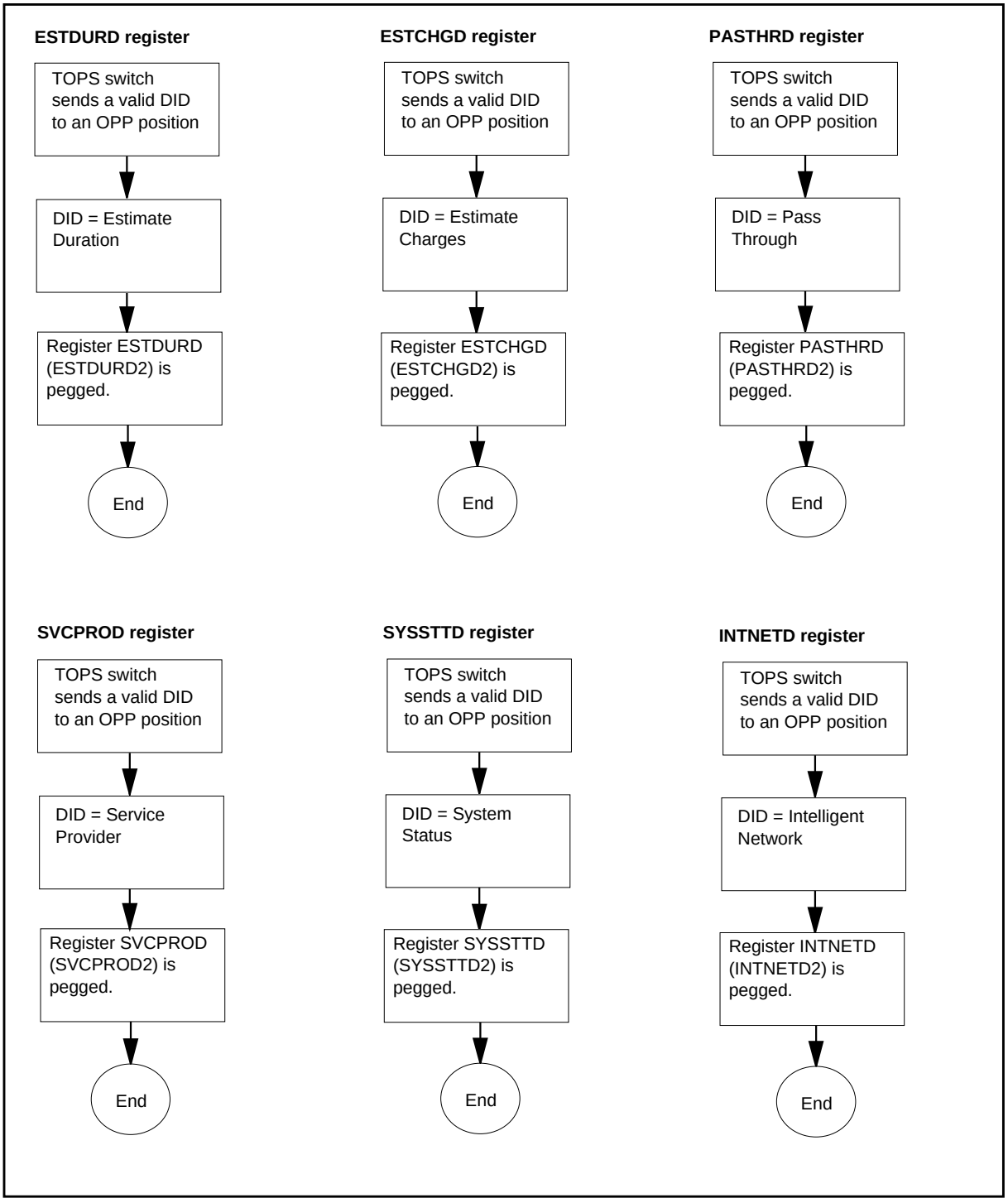
Functionality	Code
QMS Customer Service Enhancements	ADVQ0006
TOPS Open Position Protocol	EWSS0004

OM group TOPPDID6 (continued)

OM group TOPPDID6 registers

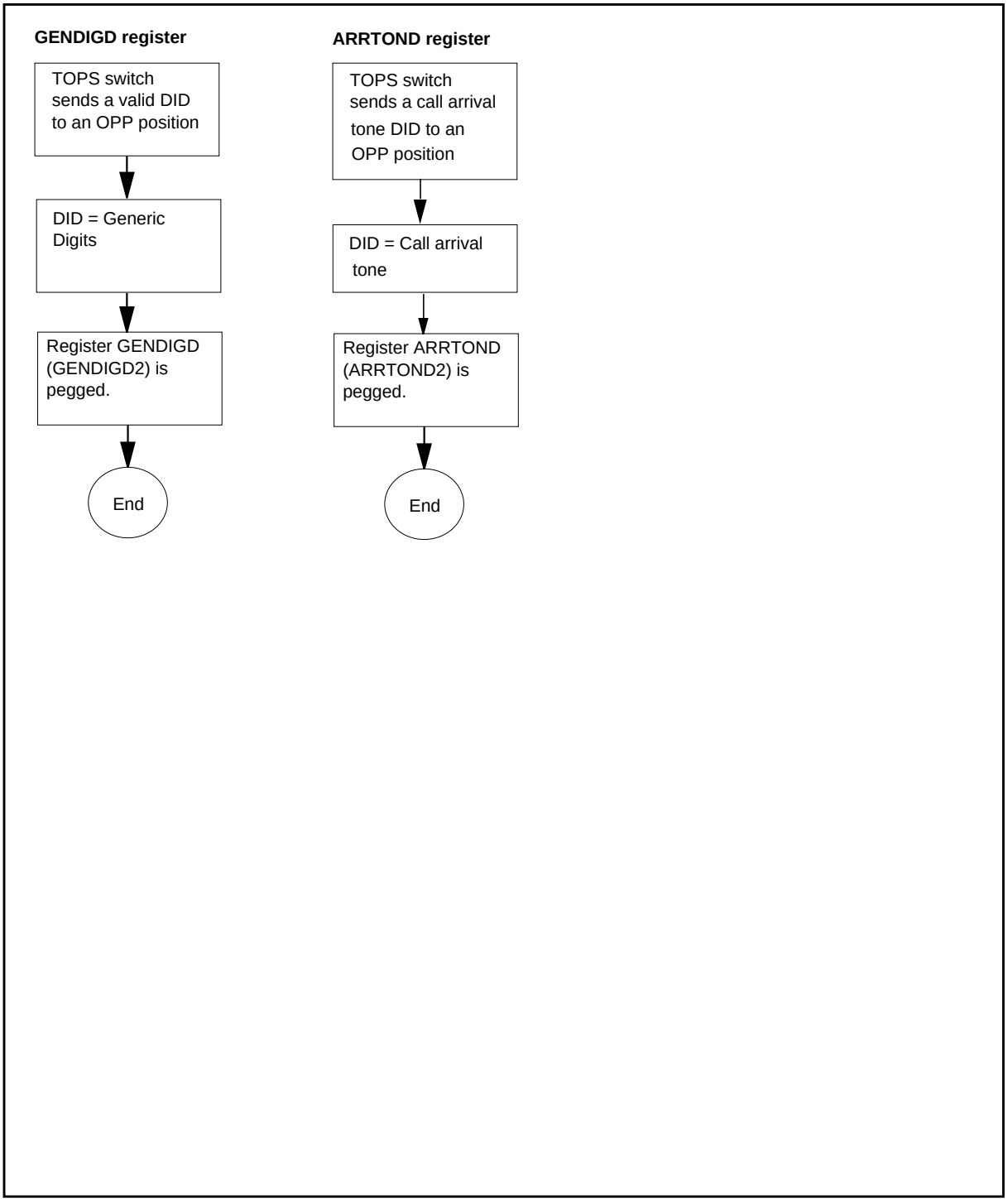


OM group TOPPDID6 registers (continued)



OM group TOPPDID6 (continued)

OM group TOPPDID6 registers (continued)



Register ALTDATD

Register Alternate Date DID

Register ALTDATD counts the number of times the Alternate Date DID is sent to OPP positions.

Register ALTDATD release history

Register ALTDATD was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

ALTDATD2

Register ALTTIMD

Register Alternate Time DID

Register ALTTIMD counts the number of times the Alternate Time DID is sent to OPP positions.

Register ALTTIMD release history

Register ALTTIMD was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

ALTTIMD2

Register ARRTOND

Register Arrival Tone DID

Register ARRTOND counts the number of times the Arrival Tone DID is sent to OPP positions.

OM group TOPPDID6 (continued)

Register ALTTIMD release history

Register ARRTOND was introduced in TOPS15.

Associated registers

None

Associated logs

None

Extension registers

ARRTOND2

Register ESTCHGD

Register Estimate Charges DID

Register ESTCHGD counts the number of times the Estimate Charges DID is sent to OPP positions.

Register ESTCHGD release history

Register ESTCHGD was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

ESTCHGD2

Register ESTDURD

Register Estimate Duration DID

Register ESTDURD counts the number of times the Estimate Duration DID is sent to OPP positions.

Register ESTDURD release history

Register ESTDURD was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

ESTDURD2

Register GENDIGD

Generic Digits DID

GENDIGD is incremented each time the DMS sends the Generic Digits DID to the operator position.

Register GENDIGD release history

GENDIGD was introduced in TOPS14.

Associated registers

None

Associated logs

None

Extension registers

GENDIGD2

Register INTNETD

Intelligent Network DID

INTNETD is incremented each time the DMS sends the Intelligent Network DID to the operator position.

Register INTNETD release history

INTNETD was introduced in TOPS10.

Associated registers

None

Associated logs

None

Extension registers

INTNETD2

OM group TOPPDID6 (continued)

Register LRNINFD

Register LRN Information DID

Register LRNINFD counts the number of times the LRN Information DID is sent to OPP positions.

Register LRNINFD release history

Register LRNINFD was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

LRNINFD2

Register OFCCOND

Register Office Condition DID

OFCCOND tracks the number of times the TOPS DMS switch sends the Office Condition DID to an OPP position.

Register OFCCOND release history

Register OFCCOND was introduced in NA006.

Associated registers

None

Associated logs

None

Extension registers

OFCCOND2

Register PASTHRD

Register Pass Through DID

Register PASTHRD counts the number of times the Pass Through DID is sent to OPP positions.

Register PASTHRD release history

Register PASTHRD was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

PASTHRD2

Register QSTATD

Register Queue Status DID

QSTATD tracks the number of times the TOPS DMS switch sends the Queue Status DID to an OPP position.

Register QSTATD release history

Register QSTATD was introduced in NA006.

Associated registers

None

Associated logs

None

Extension registers

QSTATD2

Register QSTATQD

Register Queue Status by Queue DID

QSTATQD tracks the number of times the TOPS DMS switch sends the Queue Status by Queue DID to an OPP position.

Register QSTATQD release history

Register QSTATQD was introduced in NA006.

Associated registers

None

OM group TOPPDID6 (end)

Associated logs
None

Extension registers
QSTATQD2

Register SVCPROD

Register Service Provider DID

Register SVCPROD counts the number of times the Service Provider DID is sent to OPP positions.

Register SVCPROD release history
Register SVCPROD was introduced in TOPS07.

Associated registers
None

Associated logs
None

Extension registers
SVCPROD2

Register SYSSTTD

Register System Status DID

Register SYSSTTD counts the number of times the System Status DID is sent to OPP positions.

Register SYSSTTD release history
Register SYSSTTD was introduced in TOPS07.

Associated registers
None

Associated logs
None

Extension registers
SYSSTTD2

OM group TOPPMSG

OM description

TOPS open position protocol message

TOPPMSG counts each open position protocol (OPP) message type sent or received by domestic TOPS. OPP is a flexible means of transferring information between the operator position and the TOPS DMS. Packets of information known as identifiers are classified into data identifiers (DID), which travel from TOPS to the operator position, and action identifiers, which travel from the operator position to TOPS.

Release history

OM group TOPPMSG was introduced in BCS35.

Registers

OM group TOPPMSG registers display on the MAP terminal as follows:

ACTRQST	ACTRQST2	CALLUPD	CALLUPD2
NCALLUPD	NCALLUP2	CALLBEG	CALLBEG2
CALLEND	CALLEND2	CALLSUS	CALLSUS2
CALLRES	CALLRES2		

Group structure

OM group TOPPMSG provides one tuple for each office.

Key field:
None

Info field:
None

Associated OM groups

TOPPACT1, TOPPACT2, TOPPACT3, TOPPDID1, TOPPDID2, TOPPDID3, TOPPDID4, TOPPDID5

Associated functional groups

None

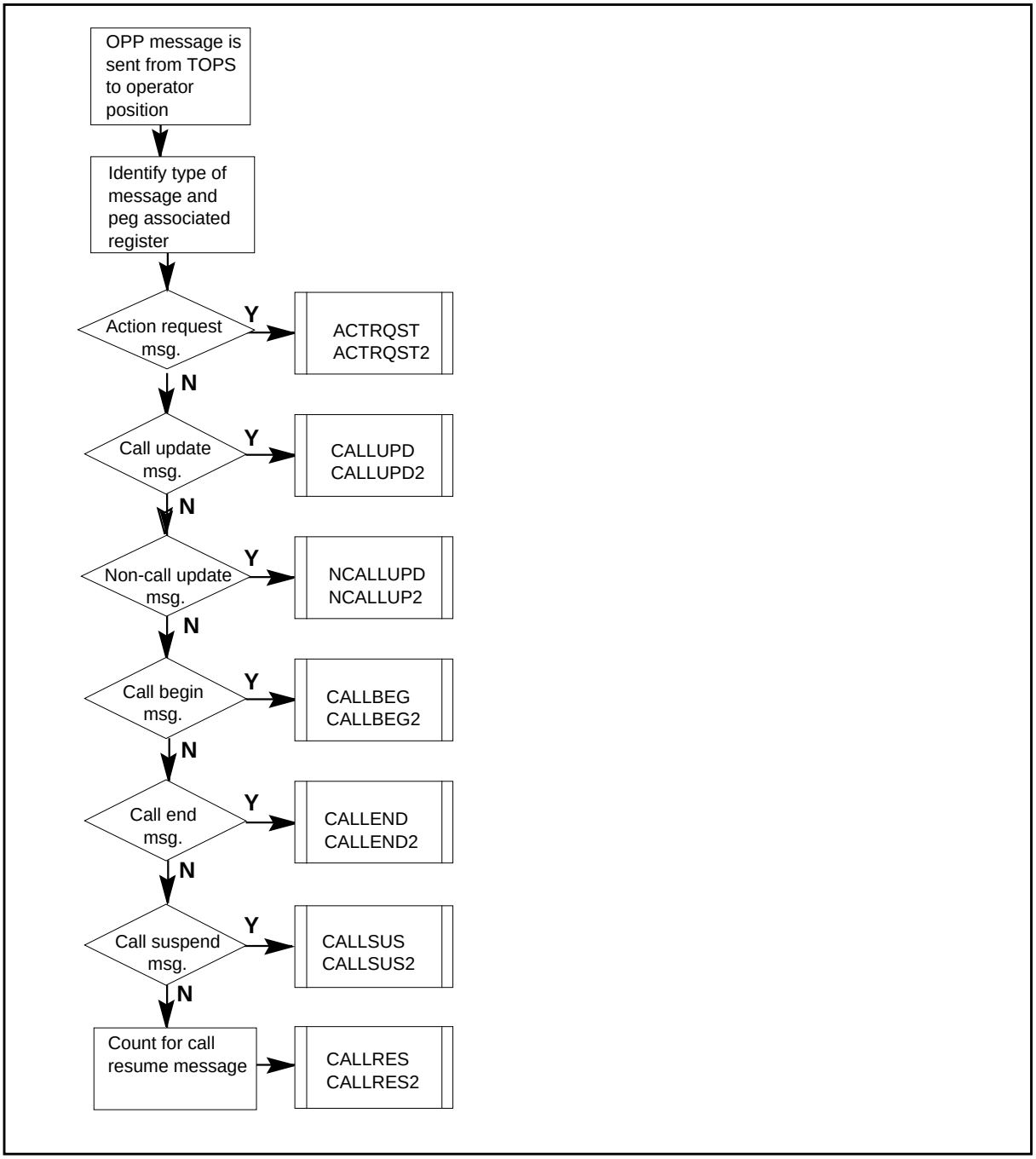
OM group TOPPMSG (continued)

Associated functionality codes

The functionality codes associated with OM group TOPPMSG are shown in the following table.

Functionality	Code
TOPS Open Position Protocol	NTXP49AA

OM group TOPPMSG registers



Register ACTRQST

Action Requests

OM group TOPPMSG (continued)

ACTRQST is incremented each time the DMS receives an Action Request message from an OPP position.

Register ACTRQST release history

ACTRQST was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

ACTRQST2

Register CALLBEG

Call Begin message

CALLBEG is incremented each time the DMS sends a Call Begin message to the operator position. This message is sent when a call is originated.

Register CALLBEG release history

CALLBEG was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

CALLBEG2

Register CALLEND

Call End message

CALLEND is incremented each time the DMS sends a Call End message to the operator position. This message is sent when a call is terminated.

Register CALLEND release history

CALLEND was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
CALLEND2

Register CALLRES
Call Resume message

CALLRES is incremented each time the DMS sends a Call Resume message to the operator position. This message is sent when a call is reaccessed after being on hold.

Register CALLRES release history
CALLRES was introduced in BCS35.

Associated registers
None

Associated logs
None

Extension registers
CALLRES2

Register CALLSUS
Call Suspend message

CALLSUS is incremented each time the DMS sends a Call Suspend message to the operator position. This message is sent when a call is put on hold.

Register CALLSUS release history
CALLSUS was introduced in BCS35.

Associated registers
None

Associated logs
None

OM group TOPPMSG (end)

Extension registers

CALLSUS2

Register CALLUPD

Call Update message

CALLUPD is incremented each time the DMS sends a Call Update message to the operator position. This message results in a screen update at the operator position displaying a change in call characteristics.

Register CALLUPD release history

CALLUPD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

CALLUPD2

Register NCALLUPD

Non-call Update message

NCALLUPD is incremented each time the DMS sends a Non-Call Update message to the operator position. This message results in a screen update at the operator position displaying a change in a characteristic that is not related to a call.

Register NCALLUPD release history

NCALLUPD was introduced in BCS35.

Associated registers

None

Associated logs

None

Extension registers

NCALLUP2

OM group TOPQOCPS

OM description

Traffic Operator Position System (TOPS) Queue Management System (QMS) Operator Centralization (OC) Position Seizures (TOPQOCPS)

OM group TOPQOCPS pegs QMS position seizure information for TOPS OC host and stand-alone offices. QMS position seizures do not occur in TOPS offices that function solely as OC remotes; hence OM TOPQOCPS is not pegged.

Note: Even though TOPQOCPS only pegs QMS position seizures in OC host and stand-alone offices, it appears in all TOPS offices.

A QMS position seizure occurs when a call is presented to a TOPS QMS operator as an initial call arrival, as a transfer, as a recall, or with QMS Customer Assistance Service Enhancements (CASE) as an assistance request.

Note: Call arrivals to service assistant (SA) and in-charge (IC) positions are not regarded as QMS position seizures.

A TOPS office can operate in three modes: stand-alone, OC host, and OC remote.

A TOPS office is operating in the stand-alone mode when it provides operators for calls originating in its own office. An office that provides operators for calls originating in other TOPS offices is operating in the OC host mode. The other TOPS offices that are utilizing operators from the OC host are operating in the OC remote mode.

Note 1: A single TOPS office can operate simultaneously, in all three modes.

Note 2: The stand-alone mode is not associated with OC; it is the normal operating mode of TOPS switches that do not use OC.

In an office that functions solely as a stand-alone, TOPQOCPS counts the number of QMS position seizures. These QMS position seizures are displayed separately for each QMS Force Management (FM) call class. The total number of QMS position seizures is also displayed.

In an office that functions solely as a OC host, TOPQOCPS counts the number of QMS position seizures for each OC remote for which the OC host is datafilled to provide operators. For OC remotes, the total number of QMS position seizures is displayed as well as a QMS position seizure breakdown by QMS FM call class.

OM group TOPQOCPS (continued)

A QMS FM call class is associated, by datafill, with each QMS position seizure.

Note: Tables OCOFC and OCGRP define the OC remote offices for which a OC host can provide operators.

For more information about OC datafill, please refer to the “Host/Remote Networking by Queue Type" section of the “Datafilling Advanced Queuing" section in the *DMS-500 Translations Guide* 297-2663-350.

Note: Table TQCLSNAM identifies the names of the QMS FM call classes, and table TQCLSDEF maps FM call types to call classes. The FM call type associated with a QMS position seizure is determined by datafill in tables TQFMNAMS and TQFMCT4Q, and optionally by datafill in tables TQFMCLAS, TQFMCLDT, and TQFMREST.

For more information about the datafill of QMS FM call types and classes, please refer to the “Host Queue Management System" section of the “Datafilling Advanced Queuing" section in the *DMS-500 Translations Guide* 297-2663-350.

Also, for more detailed information about FM, please refer to the *Product Document Directory*, 297-8991-001 and reference the appropriate FM Guide.

Note: Traffic Operator Position System Automatic Call Distribution (TOPSACD) is another queuing system, in which position seizures occur. This queuing system also provides FM call classes and FM call types.

Release history

OM group TOPQOCPS was introduced in NA006.

NA006

Functional group Advanced Queuing (ADVQ0001) introduces OM group TOPQOCPS through the QMS Customer Service Enhancements (ADVQ0006) functionality. This OM is present in all TOPS offices; however, it is only functional in offices that have the Host Queue Management System functionality (ADVQ0003) or the ADVQ0006 functionality.

Registers

The following OM group TOPQOCPS registers display on the MAP terminal as follows:

```
OMSHOW TOPQOCPS ACTIVE
TOPQOCPS
CLASS:  ACTIVE
START:1996/04/17 17:30:00 WED;STOP: 1996/04/17  17:48:40 WED;
SLOWSAMPLES:        12 ; FASTSAMPLES:        112 ;

       INFO  (TOPS_QOCPS_REGISTERINFO)
                 PS


    0           OFCTOTAL
                  0

    1           CLASS1
                  0

    2           CLASS2
                  0

   16           REMOTE1 OFCTOTAL
                  0

   17           REMOTE1 CLASS1
                  0

   18           REMOTE1 CLASS2
                  0

   32           REMOTE2 OFCTOTAL
                  0

   33           REMOTE2 CLASS1
                  0

   34           REMOTE2 CLASS2
                  0
```

The previous example is for an office that is functioning as a stand-alone and an OC host. Two OC remotes (REMOTE1 and REMOTE2) are defined in tables OCOFC and OCGRP and two QMS FM call classes (CLASS1 and CLASS2) are defined in table TQCLSNAM.

OM group TOPQOCPS (continued)

Group structure

OM group TOPQOCPS provides a maximum of 528 tuples per OC host. For a stand-alone, the maximum is 16 tuples.

The calculation for the maximum number of tuples is derived from the following formula:

[(1 + number of offices with the OFCTYPE field in table OCGRP datafilled as REMOTE) (1 + number of QMS FM call classes datafilled in table TQCLSNAM)]

Note: A maximum of 32 offices can be datafilled as remote in the OFCTYPE field of table OCGRP. A maximum of 15 QMS FM call classes can be datafilled in table TQCLSNAM; hence, the maximum number of tuples is 528 [(1 + 32) (1 + 15)].

Key field:
None

Info field:
TOPS_QOCPS_REGISTERINFO

The TOPS_QOCPS_REGISTERINFO field consists of the following information:

- the name of the OC remote

  Note: This field is blank for tuples that report QMS position seizures for calls originating in the office where the report is generated.

- the name of the QMS FM call class for which QMS position seizures are counted, or office total (OFCTOTAL) that displays a total count of QMS position seizures for the specified office.

The TOPQOCPS report is generated, at an office that functions solely as an OC host, for each of its OC remotes. For each office one tuple displays the total number of QMS position seizures, followed by tuples for the QMS position seizures for each QMS FM call class.

For an office that functions solely as a stand-alone, the TOPQOCPS report is generated, displaying one tuple for the total number of QMS position seizures, followed by tuples for the QMS position seizures for each QMS FM call class.

At offices that function solely as OC remotes, the TOPQOCPS report should show all registers with zero values.

There are no tuples for the default QMS FM call class UNDEFINED. This QMS FM call class is not datafilled in table TQCLSNAM, but QMS position seizures are assigned to it if they are not assigned to other QMS FM call classes through datafill. If information about the UNDEFINED QMS FM call class is required, it can be obtained by subtracting the QMS position seizures reported for the datafilled QMS FM call classes from those reported for the office total.

Associated OM groups

TOPSOCPS is very similar to TOPQOCPS. It tracks position seizures for calls that use the TOPSACD queuing system, while TOPQOCPS tracks position seizures for calls that use the QMS queuing system.

Associated functional groups

Functional group Advanced Queuing (ADVQ0001) is associated with OM group TOPQOCPS.

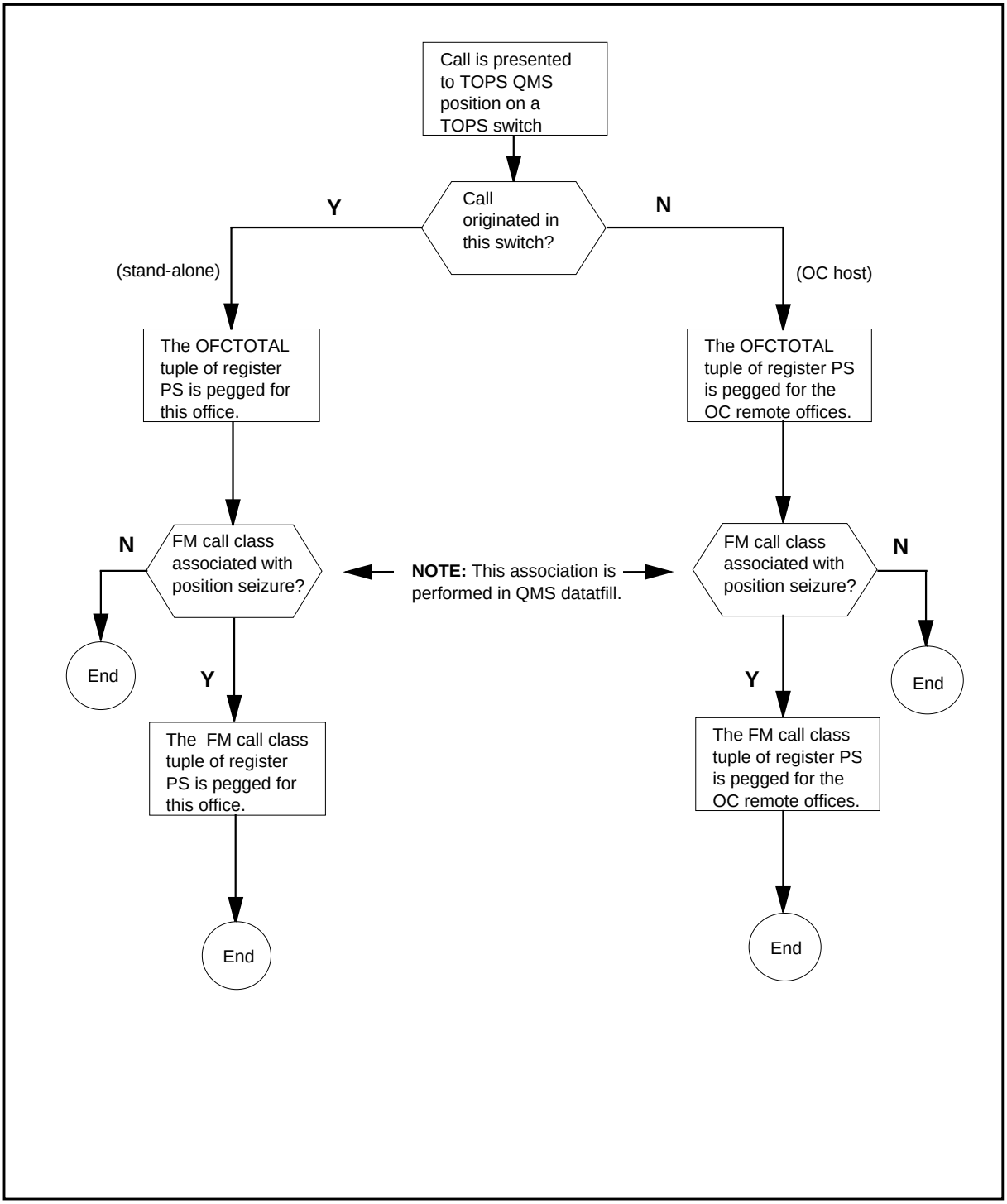
Associated functionality codes

The functionality codes associated with OM group TOPQOCPS are shown in the following table:

Functionality	Code
Host Queue Management System	ADVQ0003
QMS Customer Service Enhancements	ADVQ0006

OM group TOPQOCPS (continued)

OM group TOPQOCPS registers



Register PS

Register Position Seizures (PS)

Register PS is pegged each time a TOPS QMS operator receives a call as an initial call arrival, as a transfer, as a recall, or with QMS CASE, as an assistance request.

Register PS release history

Register PS was introduced in NA006.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TOPS950

OM description

Traffic operator position system 950

TOPS950 counts feature group B (FGB) calls to a particular carrier. TOPS access tandem (AT) switches route FGB 950 calls to FGB carriers, based on translation of the called digit streams.

Release history

OM group TOPS950 was introduced in BCS34.

Registers

OM group TOPS950 registers display on the MAP terminal as follows:

```
FWDTOCAR
```

Group structure

OM group TOPS950 provides one tuple for each entry in table FGBCIC.

Key field:
IC_INC_CARRIER_NAME

Info field:
None

Associated OM groups

None

Associated functional groups

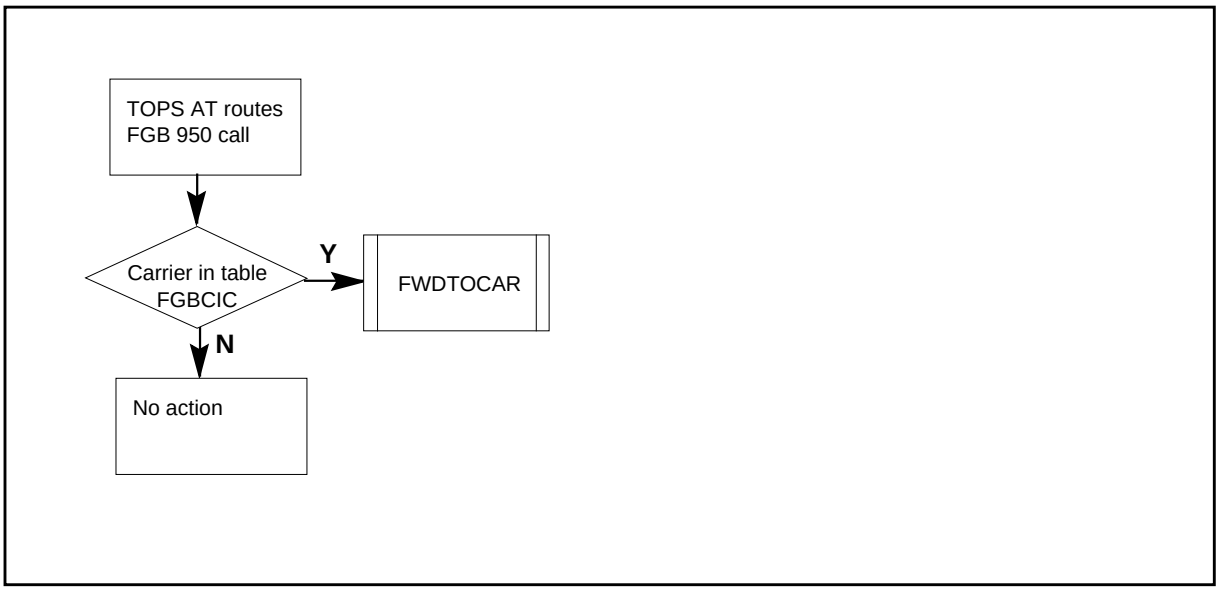
The TOPS call processing functional group is associated with OM group TOPS950.

Associated functionality codes

The functionality codes associated with OM group TOPS950 are shown in the following table.

Functionality	Code
950 Carrier Code Expansion	NTXP78AA01

OM group TOPS950 registers



Register FWDTOCAR

Forward to carrier

FWDTOCAR is incremented each time a 950 call is routed to a particular carrier that is datafilled in table FGBCIC.

Register FWDTOCAR release history

FWDTOCAR was introduced in BCS34.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TOPSAICC

OM Descriptions

TOPS automated intercept call completion

TOPSAICC monitors the use of the Automated Intercept Call Completion (AINTCC) feature. TOPSAICC contains six registers that count the following activities:

- the number of requests from the directory assistance system (DAS) for AINTCC that require an announcement
- the number of requests from the DAS for AINTCC that do not require an announcement
- the number of AINTCC calls that are completed using an announcement
- the number of AINTCC calls that do not require an announcement and are completed by the DMS switch
- the number of AINTCC calls for which the DAS requested a call completion with an announcement, but was denied by the DMS switch
- the number of AINTCC calls for which the DAS requested call completion without an announcement, but was denied by the DMS switch

Release history

OM group TOPSAICC was introduced in BCS32.

NA006

Functional group Directory Assistance (DA) (OSDA0001) introduces Database Instance as a key field in the group structure.

Registers

TOPS offices with release NA006 and higher

OM group TOPSAICC registers display on the MAP terminal as follows:

```
>OMSHOW TOPSAICC ACTIVE

TOPAICC

CLASS:   ACTIVE
START:1996/02/29 17:00:00 THU; STOP: 1996/02/29 17:10;56 THU;
SLOWSAMPLES:         7 ; FASTSAMPLES:         66 ;

      INFO (DBINST_REGISTINFO)
        REQSTANN    REQSTNIL    CMPLTANN    CMPLTNIL
        DENYANN     DENYNIL

  0   TOPSVR1   0
                50          4       20              2
                30          2

  1   TOPSVR1   1
                88          30      66              10
                22          20

  16  TOPSVR2   0
                3           99      2               66
                1           33

  17  TOPSVR2   1
                5           40      3               40
                2           0

  18  TOPSVR2   2
                6           7       6               7
                0           0
```

TOPS offices with a release below NA006

OM group TOPSAICC (continued)

```
>OMSHOW TOPSAICC ACTIVE

TOPSAICC

CLASS:   ACTIVE
START:1996/02/29 17:00:00 THU; STOP: 1996/02/29 17:10;56 THU;
SLOWSAMPLES:         7 ; FASTSAMPLES:         66 ;

        REQSTANN    REQSTNIL    CMPLTANN    CMPLTNIL
        DENYANN     DENYNIL

    0           0           0           0           0
                0           0
```

Group structure

TOPS offices with release NA006 and higher

OM group TOPSAICC provides a maximum of 32 tuples for each office.

Key field:

Database Instance [(TOPSVR1, TOPSVR2) (0-15)]

Note: The addition of this field allows the display of a tuple for each database instance that is defined in table SERVICES, when the OMSHOW command is issued.

Info field:

None

TOPS offices with a release below NA006

OM group TOPSAICC provides one tuple for each office.

Key field:

None

Info field:

None

Associated OM groups

None

OM group TOPSAICC (continued)

Associated functional groups

Functional group Directory Assistance (OSDA0001) is associated with OM group TOPSAICC.

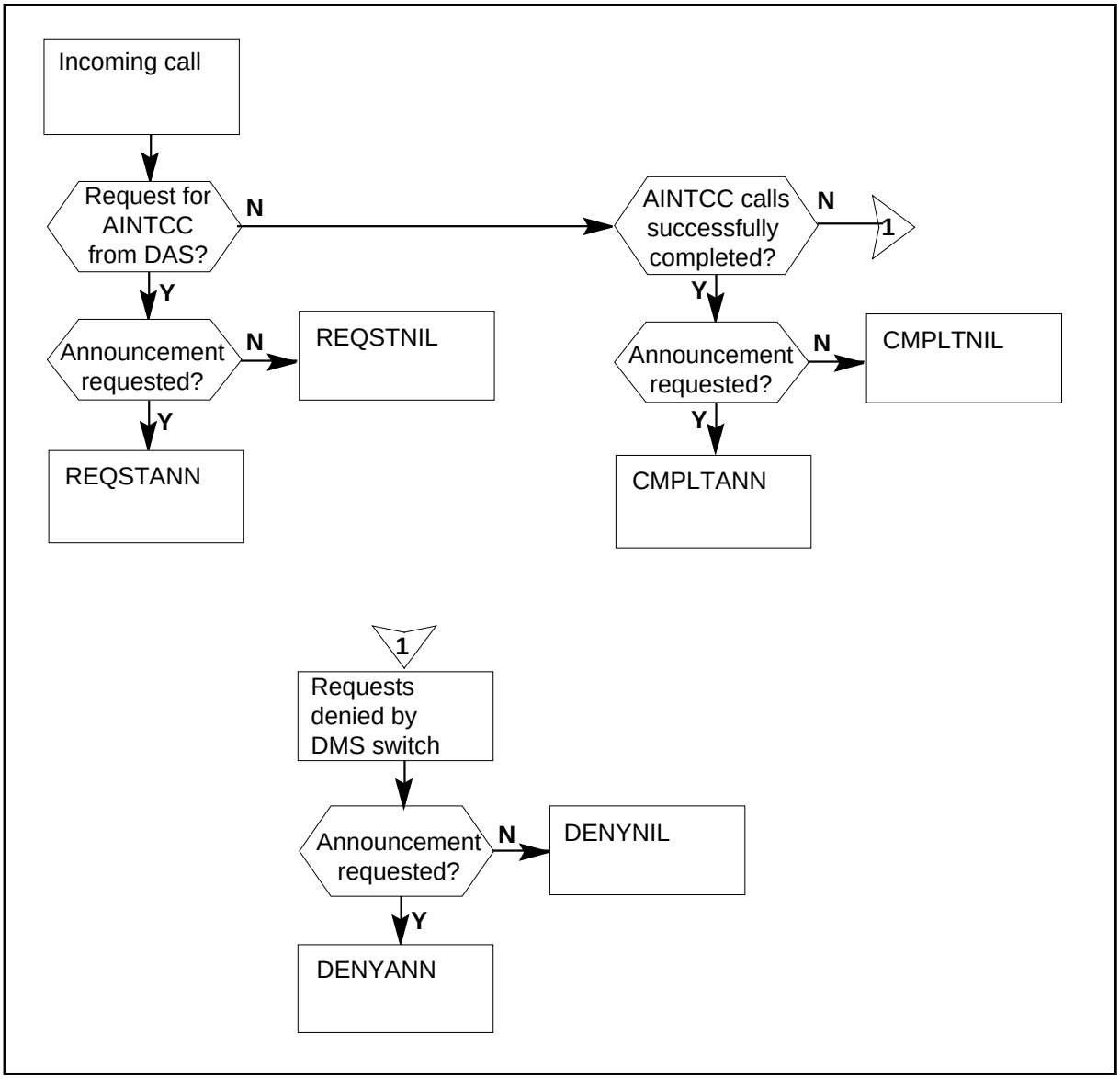
Associated functionality codes

The functionality codes associated with OM group TOPSAICC are shown in the following table.

Functionality	Code
Automated Intercept Call Completion	NTXN49AA

OM group TOPSAICC (continued)

OM group TOPSAICC registers



Register CMPLTANN

Complete with announcement (CMPLTANN)

CMPLTANN counts the number of AINTCC calls that are completed using an announcement.

Register CMPLTANN release history

CMPLTANN was introduced in BCS32.

Associated registers

Validation formula: CMPLTANN = REQSTANN - DENYANN

Note: Any OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

Associated logs

None

Extension registers

None

Register CMPLTNIL

Complete without announcement (CMPLTNIL)

CMPLTNIL counts the number of AINTCC calls that do not require an announcement and are completed by the DMS switch.

Register CMPLTNIL release history

CMPLTNIL was introduced in BCS32.

Associated registers

Validation formula: CMPLTNIL = REQSTNIL - DENYNIL

Note: Any OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

Associated logs

None

Extension registers

None

Register DENYANN

Deny with announcement (DENYANN)

OM group TOPSAICC (continued)

DENYANN counts the number of AINTCC calls for which the DAS requested a call completion with an announcement but was denied by the DMS switch.

Register DENYANN release history

DENYANN was introduced in BCS32.

Associated registers

Validation formula: DENYANN = REQSTANN - CMPLTANN

Note: Any OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

Associated logs

None

Extension registers

None

Register DENYNIL

Deny without announcement *(DENYNIL)*

DENYNIL counts the number of AINTCC calls for which the DAS requested call completion without an announcement, but was denied by the DMS switch.

Register DENYNIL release history

DENYNIL was introduced in BCS32.

Associated registers

Validation formula: DENYNIL = REQSTNIL - CMPLTNIL

Note: Any OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

Associated logs

None

Extension registers

None

Register REQSTANN

Request with announcement (REQSTANN)

REQSTANN counts the number of requests from the DAS for AINTCC that require an announcement.

Register REQSTANN release history

REQSTANN was introduced in BCS32.

Associated registers

Validation formula: REQSTANN = CMPLTANN + DENYANN

Note: Any OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

Associated logs

None

Extension registers

None

Register REQSTNIL

Request without announcement (REQSTNIL)

REQSTNIL counts the number of requests from the DAS for AINTCC that do not require an announcement.

Register REQSTNIL release history

REQSTNIL was introduced in BCS32.

Associated registers

Validation formula: REQSTNIL = CMPLTNIL + DENYNIL

Note: Any OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

OM group TOPSAICC (end)

Associated logs

None

Extension registers

None

OM group TOPSALT

OM description

TOPS alternate host

TOPSALT measures the number of calls that are routed to an alternate host. TOPSALT contains five registers that count the following activities:

- the number of times a call is rerouted to the alternate host because of resource failure at the primary host
- the number of times a call is rerouted to the alternate host because of queue overflow at the primary host
- the number of times a call is rerouted to the alternate host when the primary host is unavailable because of datalink failure
- the number of times a call is rerouted to the alternate host when the primary host is unavailable because of voice link throttling
- the total number of times calls are rerouted to the alternate host because of primary host failure

Release history

OM group TOPSALT was introduced in BCS32.

Registers

The following OM group TOPSALT registers display on the MAP terminal as follows:

```
ALTDEF          ALTOFL          ALTDL           ALTVL
ALTTOT
```

Group structure

OM group TOPSALT provides one tuple for each office.

Key field:
None

Info field:
TOPS_QUEUEINDX_REGISTERINFO

Associated OM groups

None

OM group TOPSALT (continued)

Associated functional groups

The following functional groups are associated with OM group TOPSALT:

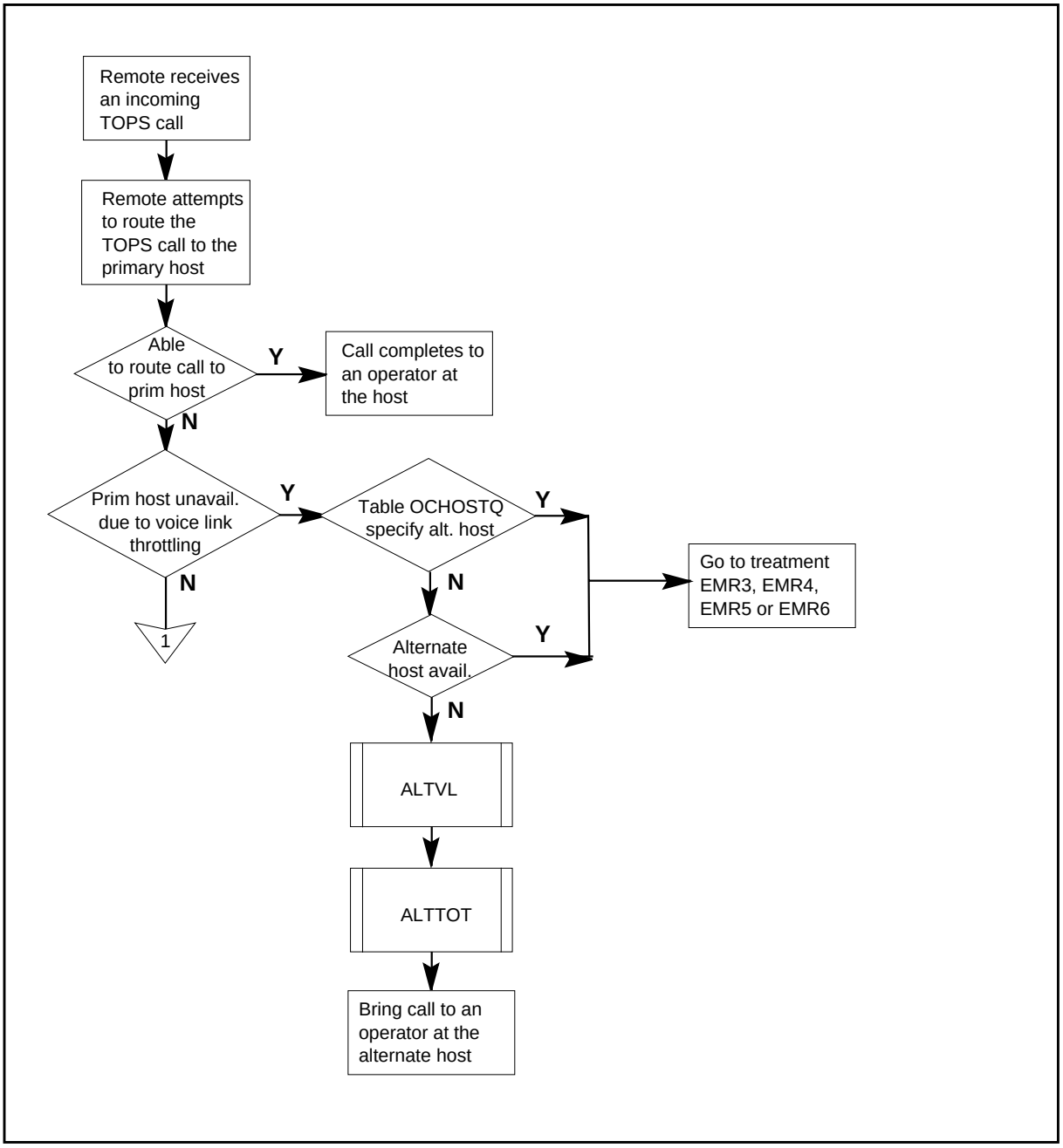
- DMS-100
- DMS-200

Associated functionality codes

The functionality codes associated with OM group TOPSALT are shown in the following table.

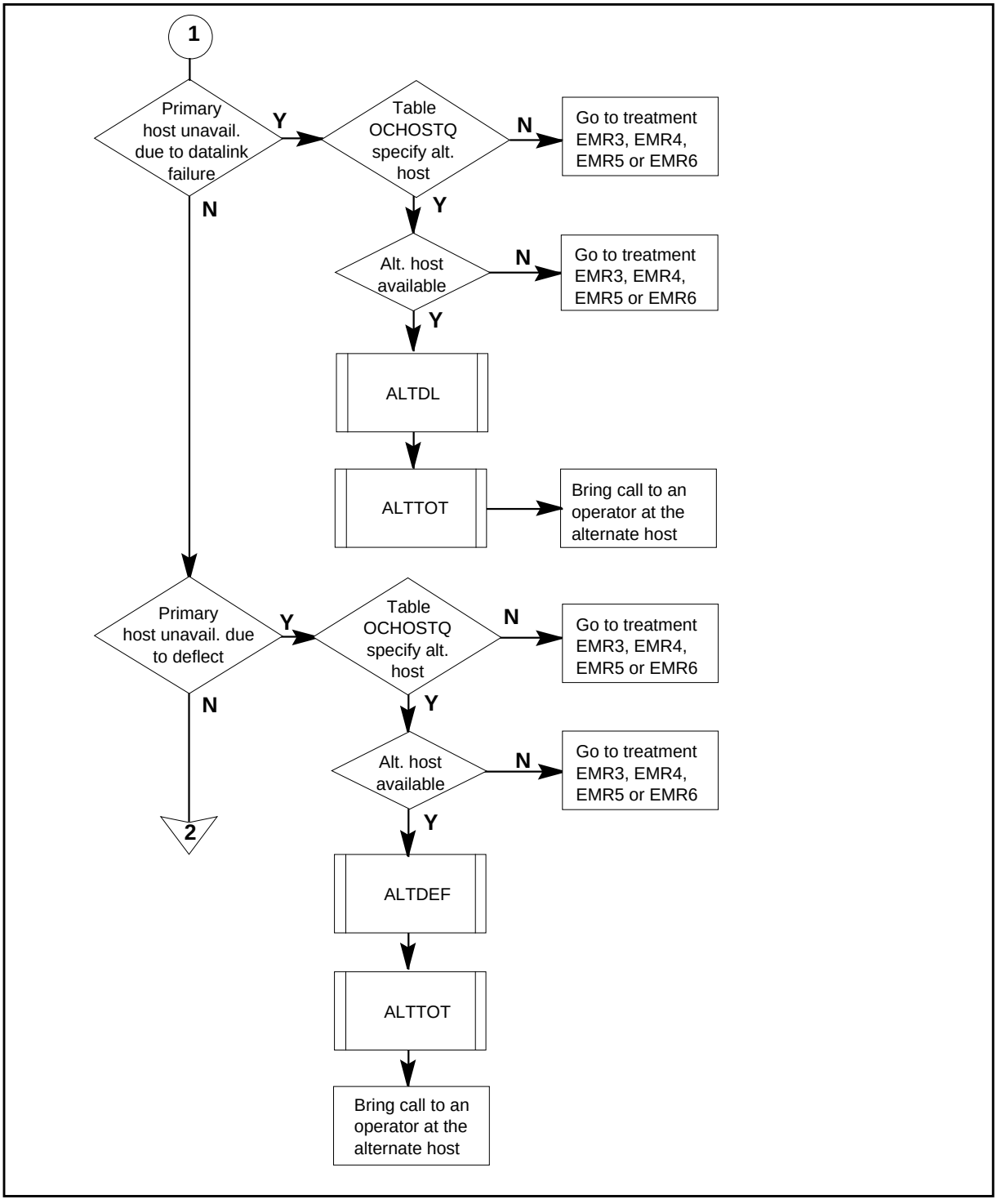
Functionality	Code
Host/Remote Networking via Call Type	NTXN54AA

OM group TOPSALT registers

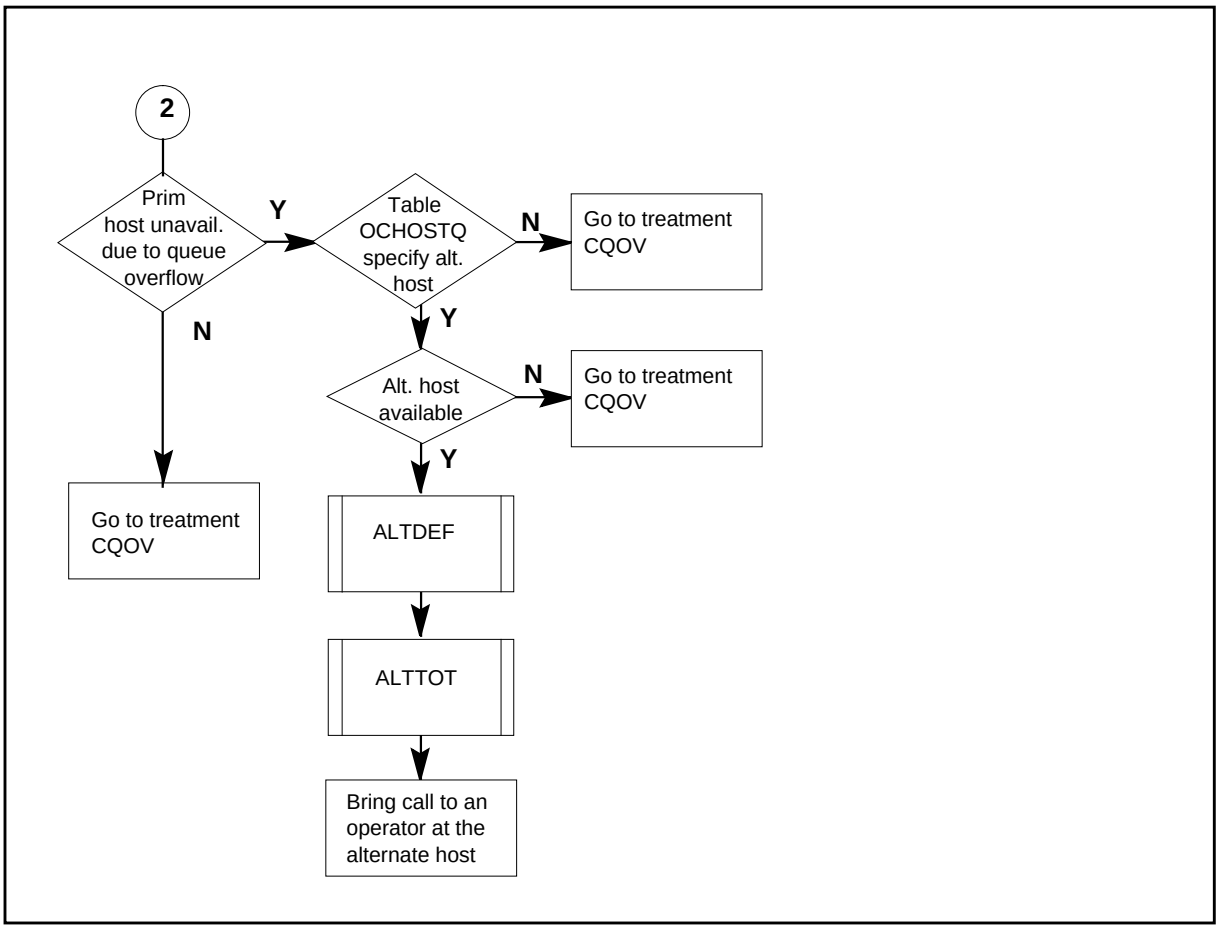


OM group TOPSALT (continued)

OM group TOPSALT registers (continued)



OM group TOPSALT registers (continued)



Register ALTDEF

ALT deflect

ALTDEF counts the number of times a call is rerouted to the alternate host because of resource failure at the primary host.

Register ALTDEF release history

ALTDEF was introduced in BCS32.

Associated registers

None

OM group TOPSALT (continued)

Associated logs

None

Extension registers

None

Register ALTDL

ALT datalink failure

ALTDL counts the number of times a call is rerouted to the alternate host when the primary host is unavailable because of datalink failure.

Register ALTDL release history

ALTDL was introduced in BCS32.

Associated registers

None

Associated logs

None

Extension registers

None

Register ALTOFL

ALT overflow

ALTOFL counts the number of times a call is rerouted to the alternate host because the primary host queue is overflowed.

Register ALTOFL release history

ALTOFL was introduced in BCS32.

Associated registers

None

Associated logs

None

Extension registers

None

Register ALTVL

ALT voice link

ALTVL counts the number of times a call is rerouted to the alternate host when the primary host is unavailable because of voice link throttling.

Note: OC voice link throttling is not supported; therefore, this register is never pegged.

Register ALTVL release history

ALTVL was introduced in BCS32.

Associated registers

None

Associated logs

None

Extension registers

None

Register ALTTOT

ALT total

ALTTOT counts the cumulative total of ALTVL, ALTDL, ALTOFL, and ALTDEF.

Register ALTTOT release history

ALTTOT was introduced in BCS32.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TOPSARU

OM description

Traffic Operator Position System (TOPS) audio response unit (ARU) (TOPSARU)

TOPSARU provides information on directory assistance (DA) and intercept calls in a TOPS office that are routed to an internal or external audio response unit.

DA calls request directory information to complete the call. Intercept calls are intercepted because the subscriber dials an out-of-service number or a number that has recently been changed.

An ARU is connected with the subscriber in order to provide recorded listing information to directory assistance and intercept calls.

Release history

OM group TOPSARU was introduced in BCS25.

NA006

Functional group Directory Assistance (OSDA0001) introduces Database Instance as a key field in the group structure.

Registers

TOPS offices with release NA006 and higher

OM group TOPSARU registers display on the MAP terminal as follows:

```
>OMSHOW TOPSARU ACTIVE

TOPSARU

CLASS:   ACTIVE
START:1996/02/29 17:00:00 THU; STOP: 1996/02/29 17:10:56 THU;
SLOWSAMPLES:         7 ; FASTSAMPLES:         66 ;

      INFO (DBINST_REGISTERINFO)
        DATOARU     DATOARU2    DAARUUN     DAARUAF
        DAARUSUC    DAARUSC2    INTTOARU    INTOARU2
        INTARUUN    INTARUAF    INARUSUC    INARUSC2
        PRIMRY      PRIMRY2     SECNDRY     SECNDRY2
        PRIMSEC     PRIMSEC2    SECPRIM     SECPRIM2

   0  TOPSVR1   0
               100          0       80              19
               1            0       6               0
               3            2       1               0
               77           0       22              0
               55           0       68              0

   1  TOPSVR1   1
               78           0       0               0
               78           0       55              0
               0            0       55              0
               2            0       4               0
               6            0       8               0

   2  TOPSVR1   2
               88           0       88              0
               0            0       6               0
               0            6       0               0
               8            0       2               0
               9            0       3               0
```

TOPS offices with a release below NA006

OM group TOPSARU registers display on the MAP terminal as follows:

OM group TOPSARU (continued)

```
>OMSHOW TOPSARU ACTIVE

TOPSARU

CLASS:   ACTIVE
START:1996/02/29 17:00:00 THU; STOP: 1996/02/29 17:10:56 THU;
SLOWSAMPLES:         7 ; FASTSAMPLES:         66 ;


          DATOARU    DATOARU2    DAARUUN     DAARUAF
          DAARUSUC   DAARUSC2    INTTOARU    INTOARU2
          INTARUUN   INTARUAF    INARUSUC    INARUSC2
          PRIMRY     PRIMRY2     SECNDRY     SECNDRY2
          PRIMSEC    PRIMSEC2    SECPRIM     SECPRIM2

    0           0          0          0           0
                0          0          0           0
                0          0          0           0
                0          0          0           0
                0          0          0           0
```

Group structure

TOPS offices with release NA006 and higher

OM group TOPSARU provides a maximum of 32 tuples for each office.

Key field:

Database Instance ([TOPSVR1, TOPSVR2][0-15])

Note: The addition of this field allows the display of a tuple for each database instance that is defined in table SERVICES, when the OMSHOW command is issued.

Info field:

None

TOPS offices with a release below NA006

OM group TOPSARU provides one tuple for each office.

Key field:
None

Info field:
None

Associated OM groups

None

Associated functional groups

Functional group Directory Assistance (OSDA0001) is associated with OM group TOPSARU.

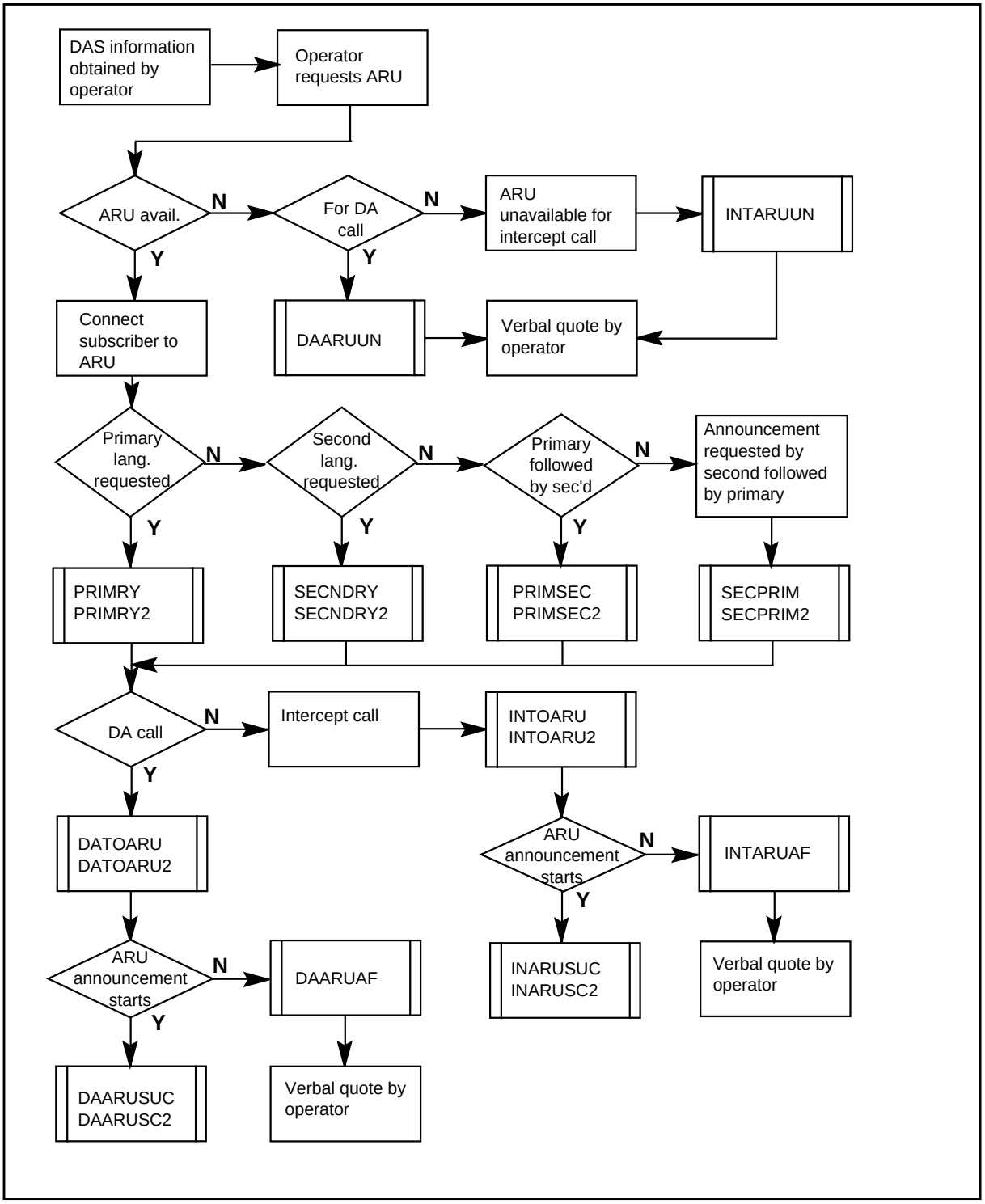
Associated functionality codes

The functionality codes associated with OM group TOPSARU are shown in the following table.

Functionality	Code
TOPS-MP DA Audio Response Unit Call Handling	NTXA62AA

OM group TOPSARU (continued)

OM group TOPSARU registers



Register DAARUAF

Directory assistance (DA) audio response unit (ARU) announcement failure (DAARUUF)

DAARUAF is incremented when a DA call released to an audio response unit announcement connects to an ARU channel that fails to provide the announcement.

Register DAARUAF release history

DAARUAF was introduced in BCS25.

Associated registers

DAARUSUC counts DA calls that are successfully provided with ARU announcement.

DAARUUN counts DA calls that cannot be released to an ARU because no ARUs are available.

DATOARU is incremented when an attempt is made to release a DA call to an ARU announcement.

Validation formula: TOPSARU_DAARUAF = TOPSARU_DATOARU - (TOPSARU_DAARUUN + TOPSARU_DAARUSUC)

Note: An OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

There are some scenarios that will cause no registers to be pegged in this OM group. Example: A call is released to audio causing register TOPSARU_DATOARU to be pegged. Before the ARU sends the answer message, the originator goes onhook and takes the call down. Since no answer message was received, register TOPSARU_DAARUSUC would not be pegged. This results in TOPSARU_DATOARU being pegged without any succeeding registers being pegged. Please allow for this possibility when using the validation formula.

Associated logs

None

Extension registers

None

OM group TOPSARU (continued)

Register DAARUSUC

Directory assistance (DA) audio response unit (ARU) success (DAARUSUC)

DAARUSUC is incremented when an ARU announcement is successfully presented during a TOPS DA call.

Register DAARUSUC release history

DAARUSUC was introduced in BCS25.

Associated registers

DAARUAF is incremented when a DA call released to ARU announcement connects to an ARU channel that fails to provide the announcement.

DAARUUN counts DA calls that cannot be release to an ARU because no ARUs are available.

DATOARU is incremented when an attempt is made to released a directory assistance call to an ARU announcement.

Validation formula: TOPSARU_DAARUSUC = TOPSARU_DATOARU - (TOPSARU_DAARUUN + TOPSARU_DAARUAF)

Note: An OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

There are some scenarios that will cause no registers to be pegged in this OM group. Example: A call is released to audio causing register TOPSARU_DATOARU to be pegged. Before the ARU sends the answer message, the originator goes onhook and takes the call down. Since no answer message was received, register TOPSARU_DAARUSUC would not be pegged. This results in TOPSARU_DATOARU being pegged without any succeeding registers being pegged. Please allow for this possibility when using the validation formula.

Associated logs

None

Extension registers

DAARUSC2

Extension registers

None

Register DAARUUN

Directory assistance (DA) audio response unit (ARU) unavailable (DAARUUN)

DAARUUN is incremented when a DA call cannot be released to an ARU announcement because no ARUs are available.

Register DAARUUN release history

DAARUUN was introduced in BCS25.

Associated registers

DAARUAF is incremented when a DA call released to ARU announcement connects to an ARU channel that fails to provide the announcement.

DAARUSUC counts DA calls that are successfully provided with an ARU announcement.

DATOARU is incremented when an attempt is made to release a DA call to an ARU announcement.

Validation formula: TOPSARU_DAARUUN = TOPSARU_DATOARU - (TOPSARU_DAARUAF + TOPSARU_DAARUSUC)

Note: An OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

There are some scenarios that will cause no registers to be pegged in this OM group. Example: A call is released to audio causing register TOPSARU_DATOARU to be pegged. Before the ARU sends the answer message, the originator goes onhook and takes the call down. Since no answer message was received, register TOPSARU_DAARUSUC would not be pegged. This results in TOPSARU_DATOARU being pegged without any succeeding registers being pegged. Please allow for this possibility when using the validation formula.

Associated logs

None

OM group TOPSARU (continued)

Extension registers

None

Register DATOARU

Directory assistance (DA) calls to audio response unit (ARU) (DATOARU)

DATOARU is incremented when an attempt is made to release a DA call to an ARU announcement.

Register DATOARU release history

DATOARU was introduced in BCS25.

Associated registers

DAARUAF is incremented when a DA call released to ARU announcement connects to an ARU channel that fails to provide the announcement.

DAARUSUC counts DA calls that are successfully provided with an ARU announcement.

DAARUUN counts DA calls that cannot be release to an ARU because no ARUs are available.

Validation formula: TOPSARU_DATOARU = TOPSARU_DAARUUN + TOPSARU_DAARUAF+ TOPSARU_DAARUSUC

Note: An OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

There are some scenarios that will cause no registers to be pegged in this OM group. Example: A call is released to audio causing register TOPSARU_DATOARU to be pegged. Before the ARU sends the answer message, the originator goes onhook and takes the call down. Since no answer message was received, register TOPSARU_DAARUSUC would not be pegged. This results in TOPSARU_DATOARU being pegged without any succeeding registers being pegged. Please allow for this possibility when using the validation formula.

Associated logs

None

Extension registers

DATOARU2

Register INARUSUC

Intercept audio response unit (ARU) success (INARUSUC)

INARUSUC is incremented when an ARU announcement is successfully presented during a TOPS intercept call.

Register INARUSUC release history

INARUSUC was introduced in BCS25.

Associated registers

INTARUAF is incremented when an intercept call released to ARU announcement connects to an ARU channel that fails to provide the announcement.

INTARUUN counts intercept calls that cannot be released to an ARU because no ARUs are available.

INTTOARU is incremented when an attempt is made to release an intercept call to an ARU announcement.

Validation formula: TOPSARU_INARUSUC = TOPSARU_INTTOARU - (TOPSARU_INTARUUN + TOPSARU_INTARUAF)

Note: An OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

There are some scenarios that will cause no registers to be pegged in this OM group. Example: A call is released to audio causing register TOPSARU_DATOARU to be pegged. Before the ARU sends the answer message, the originator goes onhook and takes the call down. Since no answer message was received, register TOPSARU_DAARUSUC would not be pegged. This results in TOPSARU_DATOARU being pegged without any succeeding registers being pegged. Please allow for this possibility when using the validation formula.

Associated logs

None

OM group TOPSARU (continued)

Extension registers

INARUSC2

Register INTARUAF

Intercept audio response unit (ARU) announcement failure (INTARUAF)

INTARUAF is incremented when an intercept call released to audio response unit (ARU) announcement connects to an ARU channel that fails to provide the announcement.

Register INTARUAF release history

INTARUAF was introduced in BCS25.

Associated registers

INARUSUC is incremented when an ARU announcement is successfully presented during a TOPS intercept call.

INTARUUN counts intercept calls that cannot be released to an ARU because no ARUs are available.

INTTOARU is incremented when an attempt is made to release an intercept call to an ARU announcement.

Validation formula: TOPSARU_INTARUAF = TOPSARU_INTTOARU - (TOPSARU_INTARUUN + TOPSARU_INARUSUC)

Note: An OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

There are some scenarios that will cause no registers to be pegged in this OM group. Example: A call is released to audio causing register TOPSARU_DATOARU to be pegged. Before the ARU sends the answer message, the originator goes onhook and takes the call down. Since no answer message was received, register TOPSARU_DAARUSUC would not be pegged. This results in TOPSARU_DATOARU being pegged without any succeeding registers being pegged. Please allow for this possibility when using the validation formula.

Associated logs

None

Extension registers

None

Register INTARUUN

Intercept audio response unit (ARU) unavailable (INTARUUN)

INTARUUN is incremented when an intercept call cannot be released to an ARU announcement because no ARUs are available.

Register INTARUUN release history

INTARUUN was introduced in BCS20.

Associated registers

INARUSUC is incremented when an ARU announcement is successfully presented during a TOPS intercept call.

INTARUAF is incremented when an intercept call released to ARU announcement connects to an ARU channel that fails to provide the announcement.

INTTOARU is incremented when an attempt is made to release an intercept call to an ARU announcement.

Validation formula: TOPSARU_INTARUUN = TOPSARU_INTTOARU - (TOPSARU-INTARUAF + TOPSARU_INARUSUC)

Note: An OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

There are some scenarios that will cause no registers to be pegged in this OM group. Example: A call is released to audio causing register TOPSARU_DATOARU to be pegged. Before the ARU sends the answer message, the originator goes onhook and takes the call down. Since no answer message was received, register TOPSARU_DAARUSUC would not be pegged. This results in TOPSARU_DATOARU being pegged without any succeeding registers being pegged. Please allow for this possibility when using the validation formula.

Associated logs

None

OM group TOPSARU (continued)

Extension registers

None

Register INTTOARU

Intercept calls released to audio response unit (ARU) (INTTOARU)

INTTOARU is incremented when an attempt is made to release an intercept call to an ARU announcement.

Register INTTOARU release history

INTTOARU was introduced prior to BCS25.

Associated registers

INARUSUC is incremented when an ARU announcement is successfully presented during a TOPS intercept call.

INTARUAF is incremented when an intercept call released to ARU announcement connects to an ARU channel that fails to provide the announcement.

INTARUUN counts intercept calls that cannot be release to an ARU because no ARUs are available.

Validation formula: TOPSARU_INTTOARU = TOPSARU_INTARUUN + TOPSARU_INTARUAF + TOPSARU_INARUSUC

Note: An OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

There are some scenarios that will cause no registers to be pegged in this OM group. Example: A call is released to audio causing register TOPSARU_DATOARU to be pegged. Before the ARU sends the answer message, the originator goes onhook and takes the call down. Since no answer message was received, register TOPSARU_DAARUSUC would not be pegged. This results in TOPSARU_DATOARU being pegged without any succeeding registers being pegged. Please allow for this possibility when using the validation formula.

Associated logs

None

Extension registers

INTOARU2

Register PRIMRY

Primary language (PRIMRY)

PRIMRY is incremented when an attempt is made to release a DA or intercept call to an ARU announcement in the TOPS office's primary language.

Register PRIMRY release history

PRIMRY was introduced in BCS25.

Associated registers

None

Associated logs

None

Extension registers

PRIMRY2

Register PRIMSEC

Primary and secondary language (PRIMSEC)

PRIMSEC is incremented when an attempt is made to release a DA or intercept call to an ARU announcement in the TOPS office's primary language, followed by an announcement in the office's secondary language.

Register PRIMSEC release history

PRIMSEC was introduced in BCS25.

Associated registers

None

Associated logs

None

Extension registers

PRIMSEC2

Register SECNDRY

Secondary language (SECNDRY)

OM group TOPSARU (end)

SECNDRY is incremented when an attempt is made to release a DA or intercept call to an ARU announcement in the TOPS office's secondary language.

Register SECNDRY release history

SECNDRY was introduced in BCS25.

Associated registers

None

Associated logs

None

Extension registers

SECNDRY2

Register SECPRIM

Secondary and primary language (SECPRIM)

SECPRIM is incremented when an attempt is made to release a DA or intercept call to an ARU announcement in the TOPS office's secondary language, followed by an announcement in the office's primary language.

Register SECPRIM release history

SECPRIM was introduced in BCS25.

Associated registers

None

Associated logs

None

Extension registers

SECPRIM2

OM group TOPSBRND

OM Description

TOPS branding announcement

TOPSBRND provides information on the use of branding announcements on TOPS calls destined for an operator or automated operator system.

TOPSBRND contains four registers that count:

- successful attempts to play a branding announcement
- unsuccessful attempts to play a branding announcement
- calls that are abandoned while the branding announcement is playing

Release history

OM group TOPSBRND was introduced in BCS29.

Registers

OM group TOPSBRND registers display on the MAP terminal as follows:

```
BRNDSUC          BRNDSUC2          BRNDABDN          BRNDFAIL
```

Group structure

OM group TOPSBRND provides one tuple for each key.

Key field:
TA for toll and assist calls

DA for directory assist calls

Info field:
None

Associated OM groups

None

OM group TOPSBRND (continued)

Associated functional groups

The following functional groups are associated with OM group TOPSBRND:

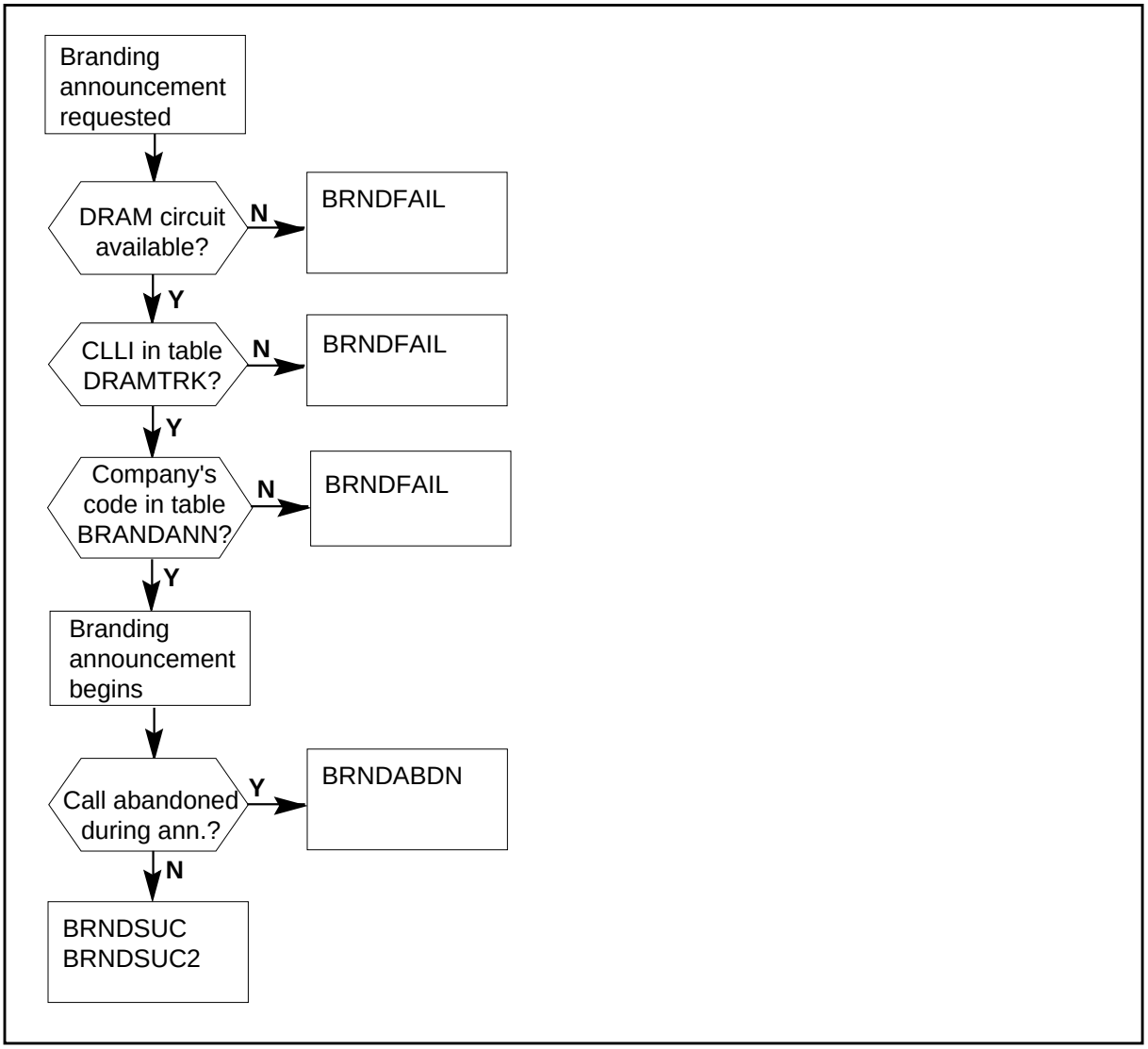
- TOPSBRND is provided for DMS-200 TOPS offices.

Associated functionality codes

The functionality codes associated with OM group TOPSBRND are shown in the following table.

Functionality	Code
TOPS Directory Assistance/Toll Branding	NTXE71AA

OM group TOPSBRND registers



Register BRNDABDN

Branding announcement abandons

BRNDABDN counts calls that are abandoned while the branding announcement is playing.

Register BRNDABDN release history

BRNDABDN was introduced in BCS29.

OM group TOPSBRND (continued)

Associated registers

None

Associated logs

None

Extension registers

None

Register BRNDFAIL

Branding announcement failure

BRNDFAIL counts unsuccessful attempts to play a branding announcement.

A branding announcement may fail to play for any one of the following reasons:

- no digital recorded announcement machine (DRAM) circuit is available to play the branding announcement
- the indicated CLLI is not datafilled in table DRAMTRK
- the company's code is not datafilled in table BRANDANN

Register BRNDFAIL release history

BRNDFAIL was introduced in BCS29.

Associated registers

None

Associated logs

TOPS114 is generated when the company's code is not datafilled in table BRANDANN.

Extension registers

None

Register BRNDSUC

Branding successes

BRNDSUC counts successful attempts to play a branding announcement. This register is incremented when a requested branding announcement plays to completion.

Register BRNDSUC release history

BRNDSUC was introduced in BCS29.

Associated registers

None

Associated logs

None

Extension registers

BRNDSUC2

OM group TOPSCCAB

OM description

Traffic Operator Position System (TOPS) directory assistance call completion (DACC) alternate billing (TOPSCCAB)

TOPSCCAB provides information on the method of billing used for automatic directory assistance call completion (ADACC).

TOPSCCAB contains ten registers that count the following types of calls:

- calls that select continue billing as the billing method for ADACC, when the billing for the directory-assisted portion of the call was sent paid
- calls that select continue billing as the billing method for ADACC, when the billing for the directory-assisted portion of the call was alternate billing method
- calls that select sent paid as the billing method for ADACC, when the directory-assisted portion of the call was not billable
- calls that select alternate billing as the ADACC billing method, when the directory-assisted portion of the call was not billable
- calls that select alternate billing as the billing method for ADACC, when the billing for the directory-assisted portion of the call was sent paid
- calls that select sent paid as the billing method for ADACC, when the billing for the directory-assisted portion of the call was alternate billing
- calls that select auto collect as the billing method for ADACC

Release history

OM group TOPSCCAB was introduced in BCS29.

NA006

Functional group Directory Assistance (DA) (OSDA0001) introduces Database Instance as a key field in the group structure.

Registers

TOPS offices with release NA006 and higher

OM group TOPSCCAB registers display on the MAP terminal as follows:

```
>OMSHOW TOPSCCAB ACTIVE

TOPSCCB

CLASS:   ACTIVE
START:1996/02/29 17:00:00 THU; STOP: 1996/02/29 17:10;56 THU;
SLOWSAMPLES:         7 ; FASTSAMPLES:         66 ;

      INFO (DBINST_REGISTERINFO)
        CONTSNT     CONTALT     NCHG2SNT    NCHG2ALT
        SNT2ALT     ALT2SNT     AUTOCOL     SNT2OPR
        ALT2OPR     NCHG2OPR

  0   TOPSVR1   0
                10          9       8               7
                6           5       4               3
                2           1
  16  TOPSVR2   0
                0           0       0               0
                0           0       0               0
                0           0
  17  TOPSVR2   1
                5           2       1               8
                0           8       0               5
                0           2
```

TOPS offices with a release below NA006

The OM group TOPSCCAB registers are displayed on the MAP terminal as follows:

OM group TOPSCCAB (continued)

```
>OMSHOW TOPSCCAB ACTIVE

TOPSCCB

CLASS:   ACTIVE
START:1996/02/29 17:00:00 THU; STOP: 1996/02/29 17:10;56 THU;
SLOWSAMPLES:          7 ; FASTSAMPLES:          66 ;

          CONTSNT     CONTALT   NCHG2SNT    NCHG2ALT
          SNT2ALT     ALT2SNT   AUTOCOL     SNT2OPR
          ALT2OPR     NCHG2OPR

    0           0           0         0           0
                0           0         0           0
                0           0         0           0
```

Group structure

TOPS offices with release NA006 and higher

OM group TOPSCCAB provides a maximum of 32 tuples for each office.

Key field:

Database Instance [(TOPSVR1, TOPSVR2) (0-15)]

Note: The addition of this field allows the display of a tuple for each database instance that is defined in table SERVICES, when the OMSHOW command is issued.

Info field:

None

TOPS offices with a release below NA006

OM group TOPSCCAB provides one tuple for each office.

Key field:

None

Info field:

None

OM group TOPSCCAB (continued)

Associated OM groups

None

Associated functional groups

Functional group Directory Assistance (OSDA0001) is associated with OM group TOPSCCAB.

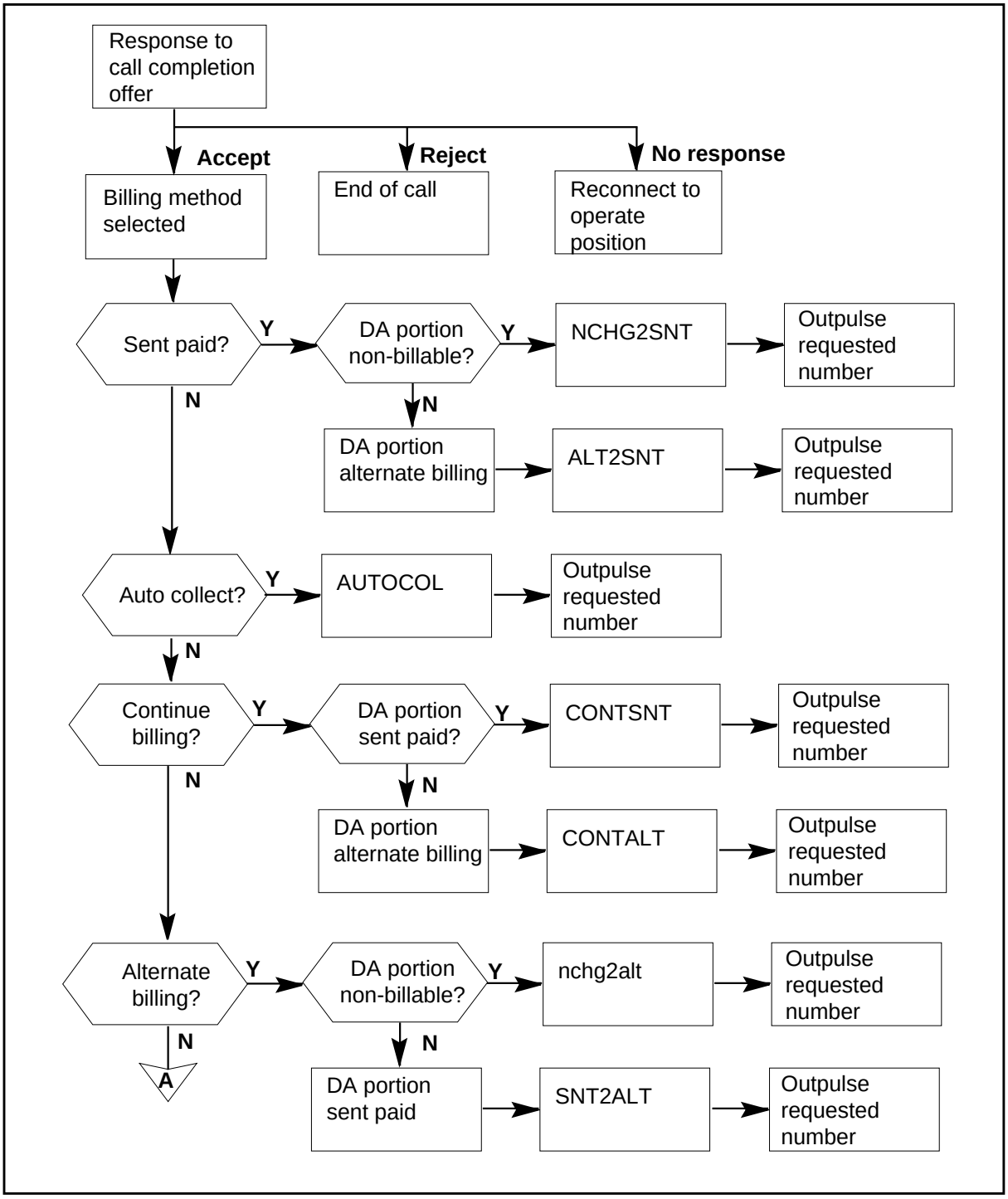
Associated functionality codes

The functionality codes associated with OM group TOPSCCAB are shown in the following table.

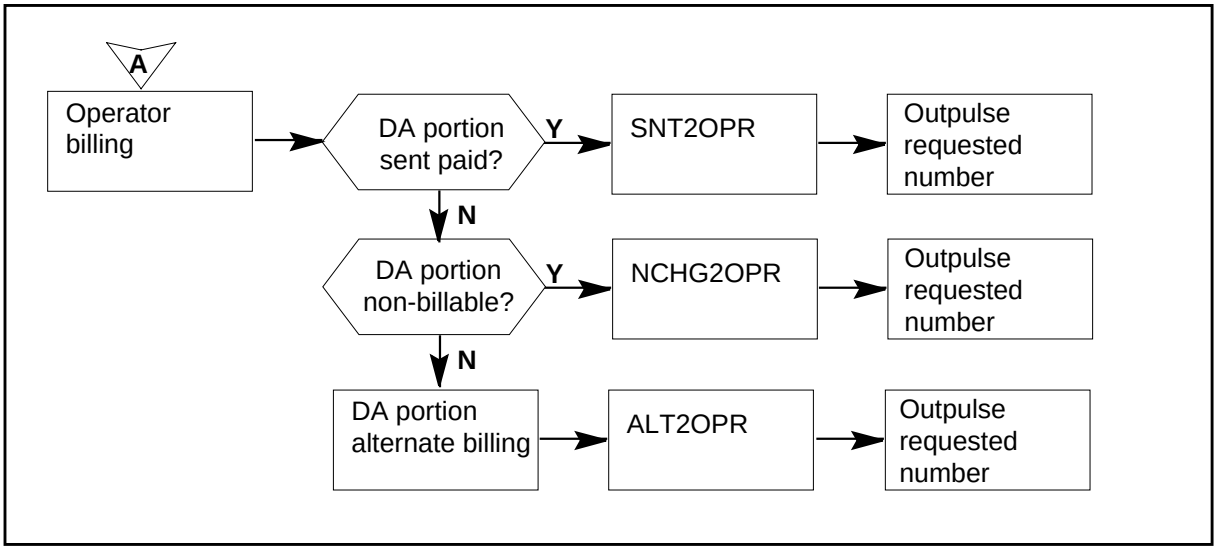
Functionality	Order code
Automated DA Call Completion with Alternate Billing	NTXF10AA/OSDA0002Y

OM group TOPSCCAB (continued)

OM group TOPSCCAB registers



OM group TOPSCCAB registers (continued)



Register ALT2OPR

Register alternate billing changed to operator billing (ALT2OPR)

Register ALT2OPR measures the number of times a subscriber whose DA call was billed using alternate billing selected operator billing for the call-completion billing method. The modification applies to IBM DA protocol as well as to standard DA protocol.

Register ALT2OPR release history

Register ALT2OPR was introduced in DMSTOPS02.

Associated registers

None

Associated logs

None

Extension registers

None

Register ALT2SNT

Alternate billing to sent paid (ALT2SNT)

ALT2SNT counts calls that select sent paid as the billing method for ADACC, when the billing for the directory-assisted portion of the call was alternate billing.

OM group TOPSCCAB (continued)

Register ALT2SNT release history

ALT2SNT was introduced in BCS29.

Associated registers

None

Associated logs

None

Extension registers

None

Register AUTOCOL

Auto collect (AUTOCOL)

AUTOCOL counts calls that select auto collect as the billing method for ADACC.

Register AUTOCOL release history

AUTOCOL was introduced in BCS29.

Associated registers

None

Associated logs

None

Extension registers

None

Register CONTALT

Continue alternate billing (CONTALT)

CONTALT counts calls that select continue billing as the billing method for ADACC, when the billing method for the directory-assisted portion of the call was alternate billing.

Register CONTALT release history

CONTALT was introduced in BCS29.

Associated registers

None

Associated logs

None

Extension registers

None

Register CONTSNT

Continue sent paid (CONTSNT)

CONTSNT counts calls that select continue billing as the billing method for ADACC, when the billing for the directory-assisted portion of the call was sent paid.

Register CONTSNT release history

CONTSNT was introduced in BCS29.

Associated registers

None

Associated logs

None

Extension registers

None

Register NCHG2ALT

No charge to alternate billing (NCHG2ALT)

NCHG2ALT counts calls that select alternate billing as the ADACC billing method, when the directory-assisted portion of the call was not billable.

Register NCHG2ALT release history

NCHG2ALT was introduced in BCS29.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TOPSCCAB (continued)

Register NCHG2OPR

Register no charge changed to operator billing (NCHG2OPR)

Register NCHG2OPR measures the number of times a subscriber whose DA call was free selected operator billing for the call-completion billing method. The modification applies to IBM DA protocol as well as standard DA protocol.

Register NCHG2OPR release history

Register NCHG2OPR was introduced in DMSTOPS02.

Associated registers

None

Associated logs

None

Extension registers

None

Register NCHG2SNT

No charge to sent paid (NCHG2SNT)

NCHG2SNT counts calls that select sent paid as the billing method for ADACC, when the directory-assisted portion of the call was not billable.

Register NCHG2SNT release history

NCHG2SNT was introduced in BCS29.

Associated registers

None

Associated logs

None

Extension registers

None

Register SNT2ALT

Sent paid to alternate billing (SNT2ALT)

SNT2ALT counts calls that select alternate billing as the billing method for ADACC, when the billing for the directory-assisted portion of the call was sent paid.

Register SNT2ALT release history

SNT2ALT was introduced in BCS29.

Associated registers

None

Associated logs

None

Extension registers

None

Register SNT2OPR

Register sent paid changed to operator billing (SNT2OPR)

Register SNT2OPR measures the number of times a subscriber whose DA call was billed station paid selected operator billing for the call-completion billing method. The modification applies to IBM DA protocol as well as to standard DA protocol.

Register SNT2OPR release history

Register SNT2OPR was introduced in DMSTOPS02.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TOPSDA

OM Description

Traffic Operator Position System directory assistance (TOPSDA)

TOPSDA provides information on directory assistance (DA) and intercept calls that are handled by the Traffic Operator Position System (TOPS).

TOPS operators service DA calls by providing subscribers with directory information. The DA service includes handling intercept calls that occur when a subscriber dials an out-of-service number or a number that has recently been changed. Intercept calls are handled by both announcements and operators.

TOPSDA has 12 registers that count the following types of calls:

- DA calls and recalls
- intercept calls
- auto-intercept calls
- intercept Automatic Number Identification Fail (ANIF) calls
- intercept Operator Number Identification (ONI) calls
- intercept special recalls
- intercept regular recalls
- intercept cut-through calls

The data supplied by TOPSDA is used to monitor DA traffic.

Release history

OM group TOPSDA was introduced in BCS25.

NA006

Functional group Directory Assistance (OSDA0001) introduces Database Instance as a key field in the group structure.

Registers

TOPS offices with release NA006 and higher

OM group TOPSDA registers display on the MAP terminal as follows:

```
>OMSHOW TOPSDA ACTIVE

TOPSDA

CLASS:   ACTIVE
START:1996/02/29 17:00:00 THU; STOP: 1996/02/29 17:10;56 THU;
SLOWSAMPLES:         7 ; FASTSAMPLES:         66 ;

      INFO (DBINST_REGISTERINFO)
        DACALL      DACALL2     DARCL       INTCCALL
        INTCCAL2    INTCAUT     INTCAUT2    INTCANIF
        INTCONI     INTCSPL     INTCRCL     INTCCUT
        DASRLS      DATIMRLS    ADASELG     ADASELG2
        ADASARUF    ADASOPR     ADASOPR2    ADASAUTO
        ADASAUT2    ADASMON

  0   TOPSVR1   0
                594         0       66              600
                0           100     0               200
                300         4       2               8
                3           2       9               0
                5           2       0               1
                0           7

  1   TOPSVR1   1
                398         0       9               3
                0           1       0               1
                1           0       0               0
                0           0       5               2
                1           0       3               0
                0           4

  16  TOPSVR2   0
                0           0       0               1000
                0           500     0               300
                200         0       0               0
                0           0       0               0
                0           0       0               0
                0           0
```

TOPS offices with a release below NA006

The OM group TOPSDA registers are displayed on the MAP terminal as follows:

OM group TOPSDA (continued)

```
>OMSHOW TOPSDA ACTIVE

TOPSDA

CLASS:   ACTIVE
START:1996/02/29 17:00:00 THU; STOP: 1996/02/29 17:10;56 THU;
SLOWSAMPLES:         7 ; FASTSAMPLES:         66 ;

        DACALL      DACALL2     DARCL       INTCCALL
        INTCCAL2    INTCAUT     INTCAUT2    INTCANIF
        INTCONI     INTCSPL     INTCRCL     INTCCUT
        DASRLS      DATIMRLS    ADASELG     ADASELG2
        ADASARUF    ADASOPR     ADASOPR2    ADASAUTO
        ADASAUT2    ADASMON

   0           0           0           0           0
               0           0           0           0
               0           0           0           0
               0           0           0           0
               0           0           0           0
               0           0           0           0
```

Group structure

TOPS offices with release NA006 and higher

OM group TOPSDA provides a maximum of 32 tuples for each office.

Key field:

Database Instance ([TOPSVR1, TOPSVR2] ([0-15])

Note: The addition of this field allows the display of a tuple for each database instance that is defined in table SERVICES, when the OMSHOW command is issued.

Info field:

None

TOPS offices with a release below NA006

OM group TOPSDA provides one tuple for each office.

Key field:
None

Info field:
None

Associated OM groups

None

Associated functional groups

Functional group Directory Assistance (OSDA0001) is associated with OM group TOPSDA.

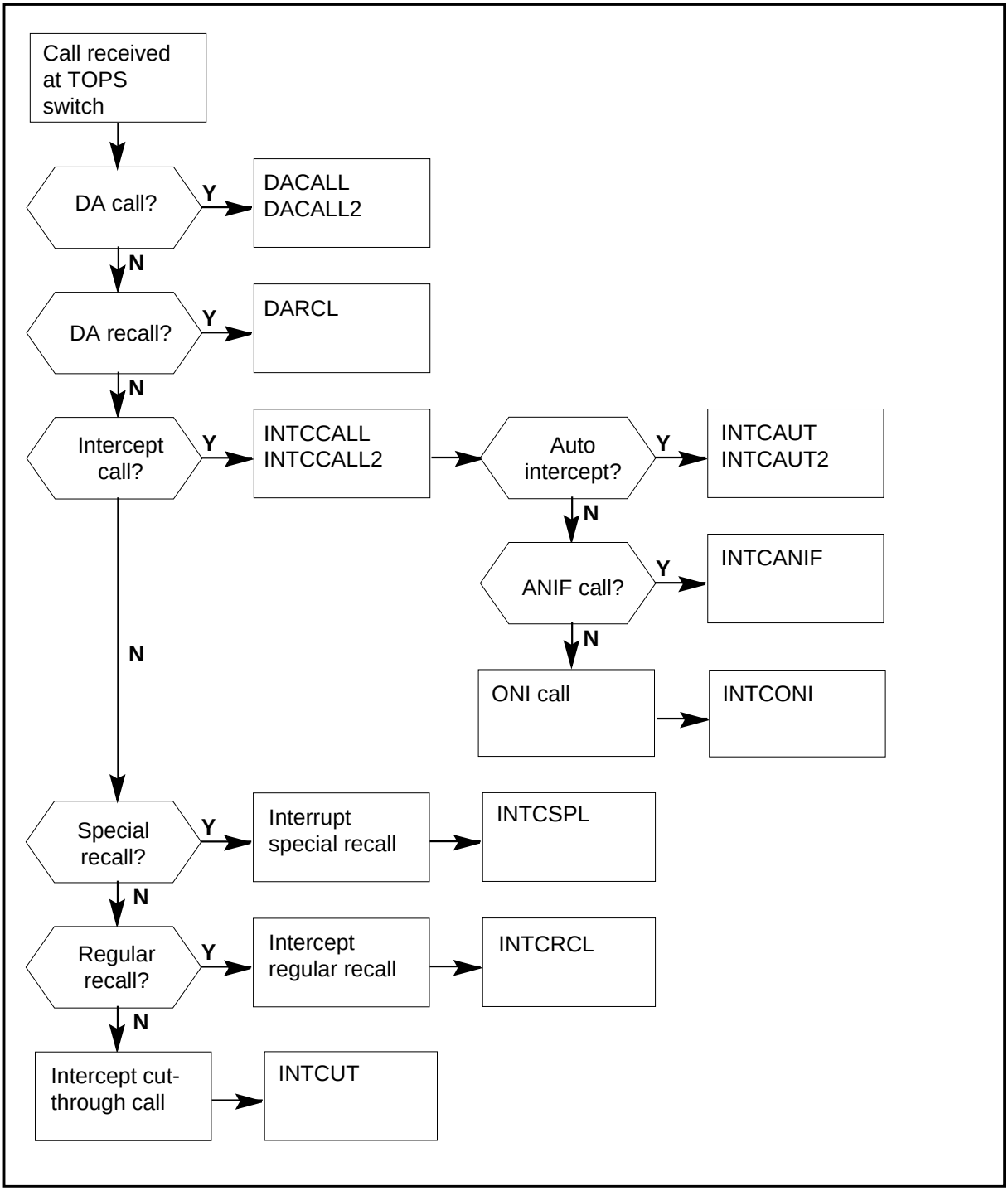
Associated functionality codes

The functionality codes associated with OM group TOPSDA are shown in the following table.

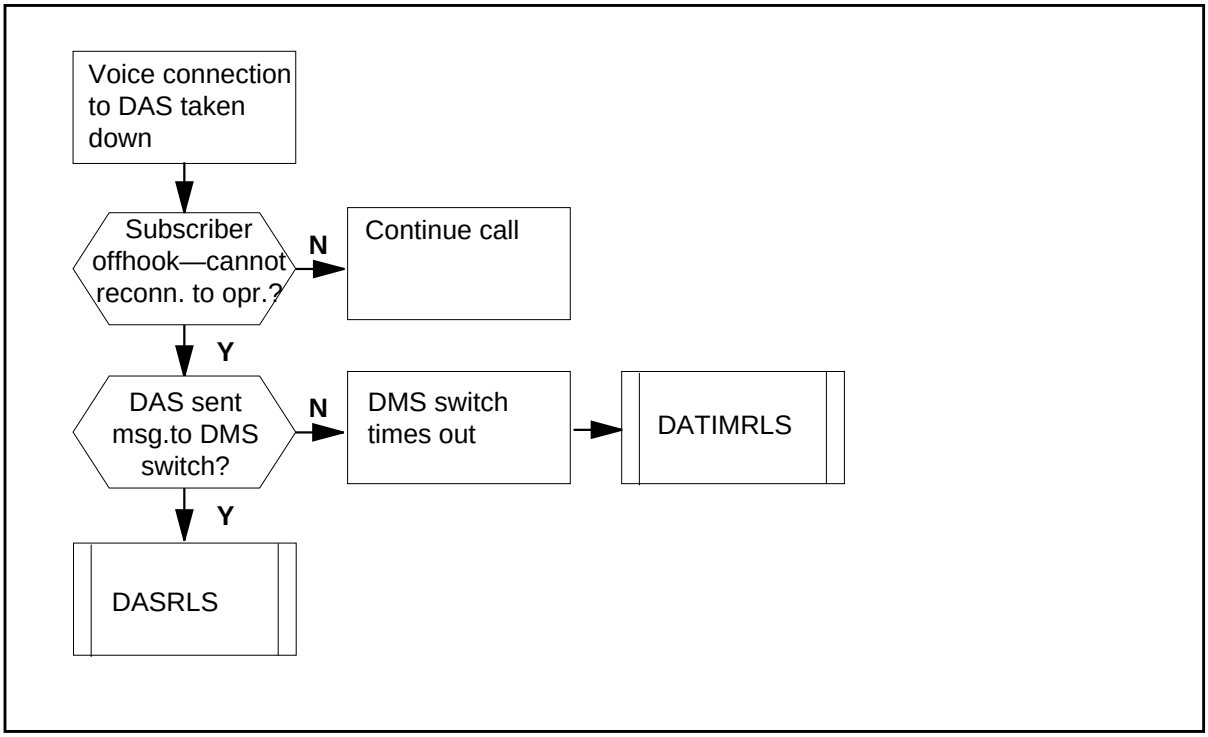
Functionality	Order code
OSDA TOPS DA Call Processing	NTXA62AA

OM group TOPSDA (continued)

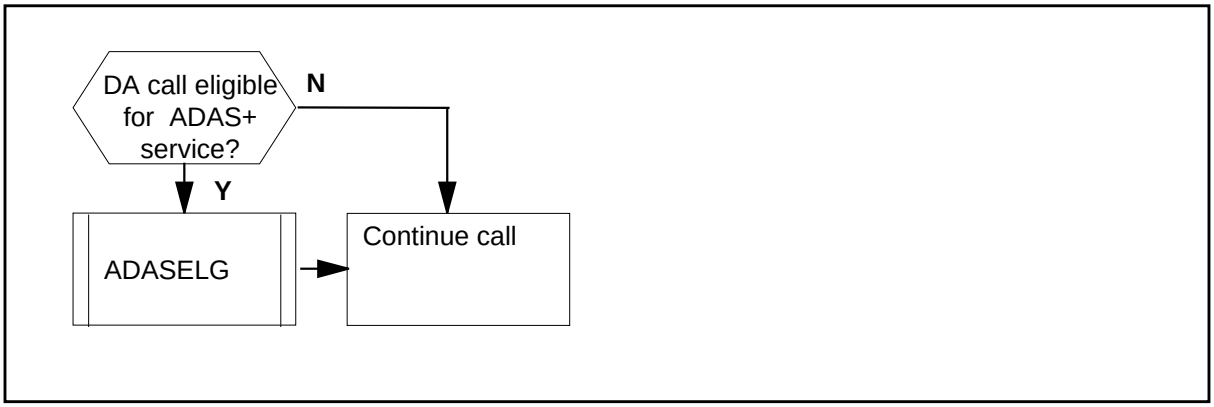
OM group TOPSDA registers



OM group TOPSDA registers: DASRLS and DATIMRLS

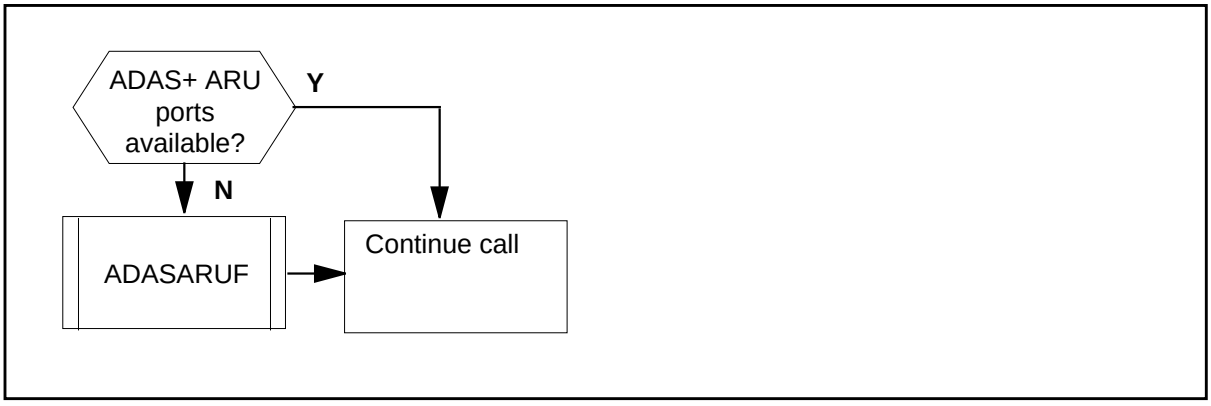


OM group TOPSDA registers: ADASELG

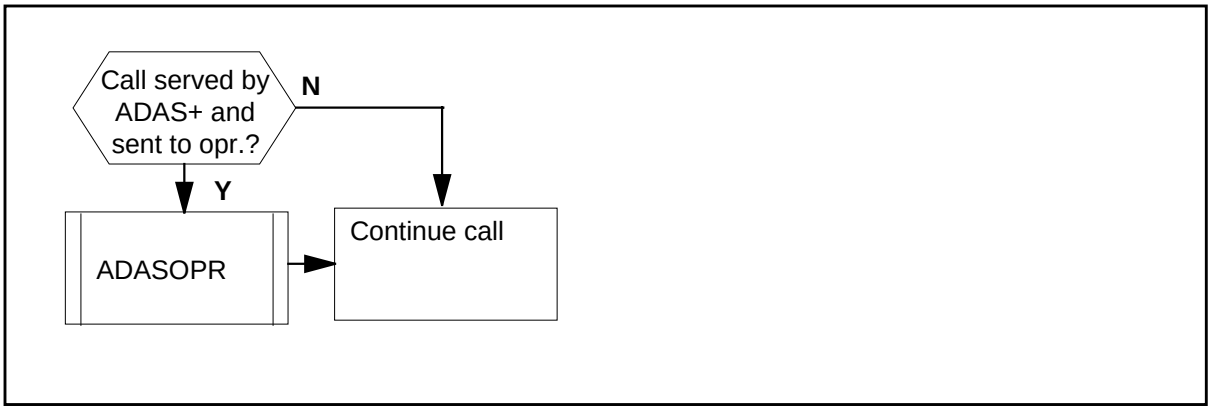


OM group TOPSDA (continued)

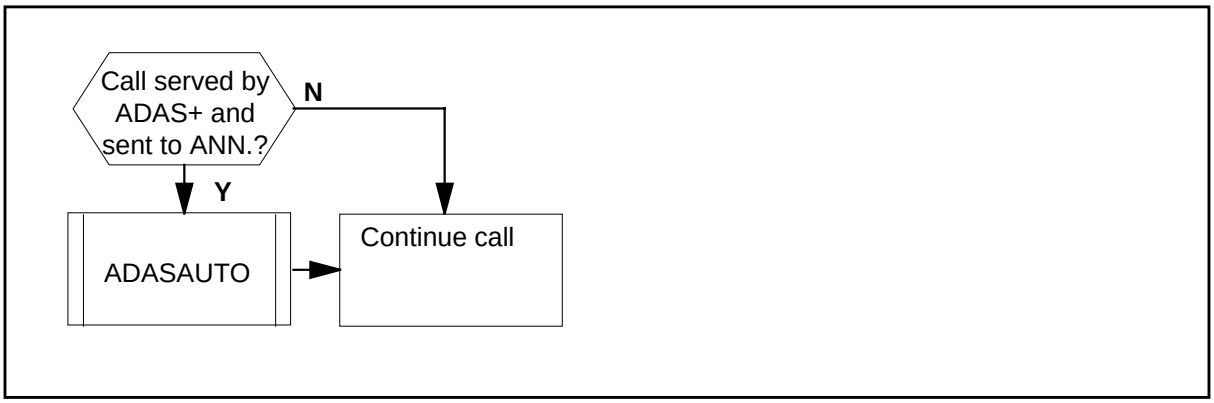
OM group TOPSDA registers: ADASARUF



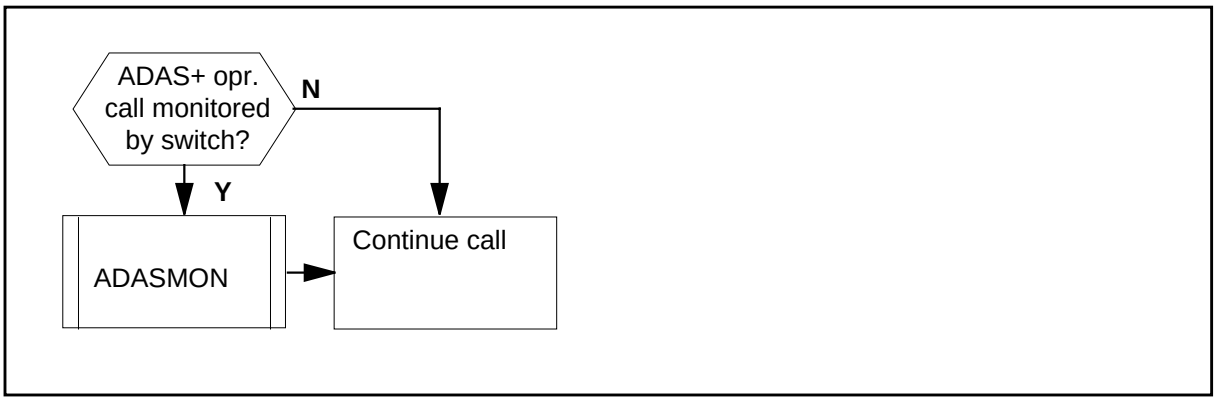
OM group TOPSDA registers: ADASOPR



OM group TOPSDA registers: ADASAUTO



OM group TOPSDA registers: ADASMON



Register ADASARUF

Automated Directory Assistance Service Plus (ADAS+) audio response unit (ARU) Failures (ADASRUF)

Register ADASARUF is pegged if an ADAS+ port is blocked. This blockage occurs if several attempts are made from different pools for an ADAS+ ARU and none is available. Then ADASARUF is pegged.

Register ADASARUF release history

Register ADASARUF was introduced in TOPS03 by feature AN0880.

This register was updated in TOPS09 by feature AF7132, which caused generation of log DAS107 instead of DAS103.

Associated registers

None

Associated logs

Log DAS107 is generated when an ARU failure occurs.

Extension registers

None

Register ADASAUTO

Automated Directory Assistance Service Plus (ADAS+) to Announcement Calls (ADASAUTO)

OM group TOPSDA (continued)

Register ADASAUTO measures the number of ADAS+ eligible calls that are served by ADAS+ and sent directly to a listing announcement.

Register ADASAUTO release history

Register ADASAUTO was introduced in DMSTOPS03.

Associated registers

None

Associated logs

None

Extension registers

ADASAUT2

Register ADASELG

Automated Directory Assistance Service Plus (ADAS+) Eligible calls (ADASELG)

Register ADASELG measures the number of DA calls that are eligible for ADAS+ service. It is pegged when a call is determined to be ADAS+ eligible.

Register ADASELG release history

Register ADASELG was introduced in DMSTOPS03.

Associated registers

None

Associated logs

None

Extension registers

ADASELG2

Register ADASMON

Automated Directory Assistance Service Plus (ADAS+) Monitored Calls (ADASMON)

ADASMON measures the number of ADAS+ to operator calls that are monitored.

Register ADASMON release history

Register ADASMON was introduced in DMSTOPS03.

Associated registers

None

Associated logs

None

Extension registers

None

Register ADASOPR

Automated Directory Assistance Service Plus (ADAS+) to Operator Calls (ADASOPR)

Register ADASOPR measures the number of ADAS+ eligible calls that are served by ADAS+ and sent to an operator.

Register ADASOPR release history

Register ADASOPR was introduced in DMSTOPS03.

Associated registers

None

Associated logs

None

Extension registers

ADASOPR2

Register DARCL

Directory assistance (DA) recall (DARCL)

Register DARCL measures the number of times that a call reconnects to an operator after the voice connection to the DAS has been taken down. The reconnect to operator only occurs when the DAS requests it from the DMS switch.

Register DARCL release history

Register DARCL was introduced in DMSTOPS02.

Associated registers

None

OM group TOPSDA (continued)

Associated logs

None

Extension registers

None

Register DASRLS

Directory Assistance System (DAS) initiated release (DASRLS)

Register DASRLS measures the number of times that the DAS requests that the Digital Multiplex System (DMS) switch release a DA call after the voice connection to the DAS is taken down.

Register DASRLS release history

Register DASRLS was introduced in DMSTOPS02.

Associated registers

None

Associated logs

None

Extension registers

None

Register DATIMRLS

Directory assistance (DA) time-out release (DATIMRLS)

Register DATIMRLS measures the number of times that the DMS switch releases a DA call because the subscriber has neglected to hang up the phone after the voice connection to the DAS has been taken down and the DAS does not send a message informing the DMS switch what to do next. This value should normally be zero; if it is not, it is an indication that either the DAS is not handling interactive reconnects properly, or that messages are being lost.

Register DATIMRLS release history

Register DATIMRLS was introduced in DMSTOPS02.

Associated registers

None

OM group TOPSDA (end)

Associated logs

Log DAS103 is generated with a reason of “DAS TIMEOUT" whenever this OM is pegged.

Extension registers

None

OM group TOPSDACC

OM description

Traffic Operator Position System (TOPS) directory assistance call completion (DACC) (TOPSDACC)

TOPSDACC counts call completions that are handled by an operator and by Automatic Directory Assistance Call Completion (ADACC). ADACC allows a subscriber making a directory assistance (DA) call to be connected to the requested number without originating a new call. The subscriber can be connected to the requested number manually by an operator, or automatically by an audio response unit (ARU).

TOPSDACC registers count the following activities:

- call completion offers for operator-handled DA calls that are accepted by a subscriber
- ADACC requests that are received from directory assistance system (DAS)
- ADACC requests that are denied by a DMS switch
- ADACC requests that are offered to subscribers
- ADACC requests that are accepted by subscribers
- no-announcement ADACC calls that are completed by subscribers
- no-announcement ADACC requests denied to subscribers

OM group TOPSDACC is pegged on TOPS IS-41 RLT calls as well as TOPS ISUP RLT. TOPSDACC is also used for calls without any RLT

Release history

SN06 (DMS)

Feature A00000816 was introduced to allow wireless calls that receive TOPS Directory Assistance (DA) to be released back to the originating Mobile Switching Center (MSC) for call completion. These calls peg registers in group TOPSDACC.

NA006

Functional group Directory Assistance (OSDA0001) introduces Database Instance as a key field in the group structure.

DMSTOPS02

Register NOANNCC was added in DMSTOPS02. It measures the number of times that a subscriber completes a no-announcement ADACC call.

OM group TOPSDACC (continued)

Register NOANNFL was added in DMSTOPS02. It measures the numer of times that a subscriber is denied no-announcement ADACC.

BCS33

Register ADENY is incremented if ADACC is not offered by the DMS switch because of local or toll restrictions added by the ADACC Toll Restrictions feature.

TOPS05

OM group TOPSDACC was introduced in TOPS05.

Registers

TOPS offices with release NA006 and higher

OM group TOPSDACC registers display on the MAP terminal as follows:

```
>OMSHOW TOPSDACC ACTIVE

TOPSDACC

CLASS:   ACTIVE
START:1996/02/29 17:00:00 THU; STOP: 1996/02/29 17:10:56 THU;
SLOWSAMPLES:          7 ; FASTSAMPLES:          66 ;

      INFO (DBINST_REGISTERINFO)
        OHACCPT     AREQST      ADENY       AOFFER
        AACCPT      NOANNCC     NOANNFL


   0  TOPSVR1   0
                8           100     3               97
                9           3       4               ?

   1  TOPSVR1   1
                0           4       2               2
                0           0       0
```

TOPS offices with a release below NA006

OM group TOPSDACC registers display on the MAP terminal as follows:

```
>OMSHOW TOPSDACC ACTIVE

TOPSDACC

CLASS:   ACTIVE
START:1996/02/29 17:00:00 THU; STOP: 1996/02/29 17:10:56 THU;
SLOWSAMPLES:          7 ; FASTSAMPLES:          66 ;


         OHACCPT      AREQST      ADENY           AOFFER
         AACCPT       NOANNCC     NOANNFL

    0          0           0           0              0
               0           0           0
```

Group structure

TOPS offices with release NA006 and higher

OM group TOPSDACC provides a maximum of 32 tuples for each office.

Key field:

Database Instance ([TOPSVR1, TOPSVR2] [0-15])

Note: The addition of this field allows the display of a tuple for each database instance that is defined in table SERVICES, when the OMSHOW command is issued.

Info field:

None

TOPS offices with a release below NA006

OM group TOPSDACC provides one tuple for each office with TOPS multipurpose positions that is connected to a DAS database.

Key field:

None

Info field:

None

OM group TOPSDACC (continued)

Associated OM groups

None

Associated functional groups

The following functional groups are associated with OM group TOPSDACC:

- TOPSMP with access to a DAS database
- NTX714AA (TOPS Inter-LATA Carrier Service)
- NTX187AA (TOPS Equal Access)
- NTX030CC (TOPS Call Processing Features)
- OSDA0001

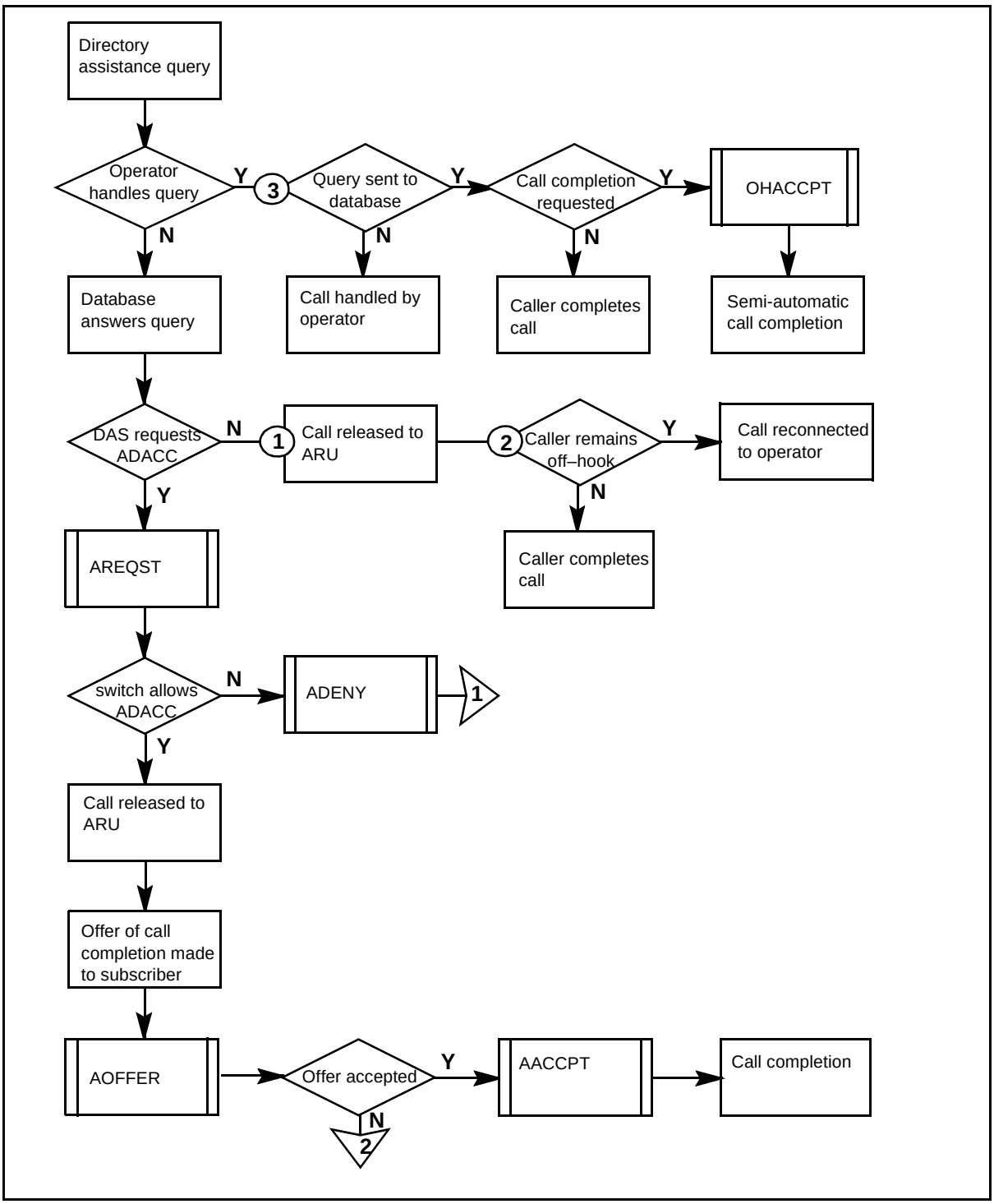
Associated functionality codes

The functionality codes associated with OM group TOPSDACC are shown in the following table.

Functionality	Order code
Automatic DA Call Completion (This software is required for counts in registers AREQST, ADENY, AOFFER, and AACCPT.)	NTXE36AA/OSDA0002Y

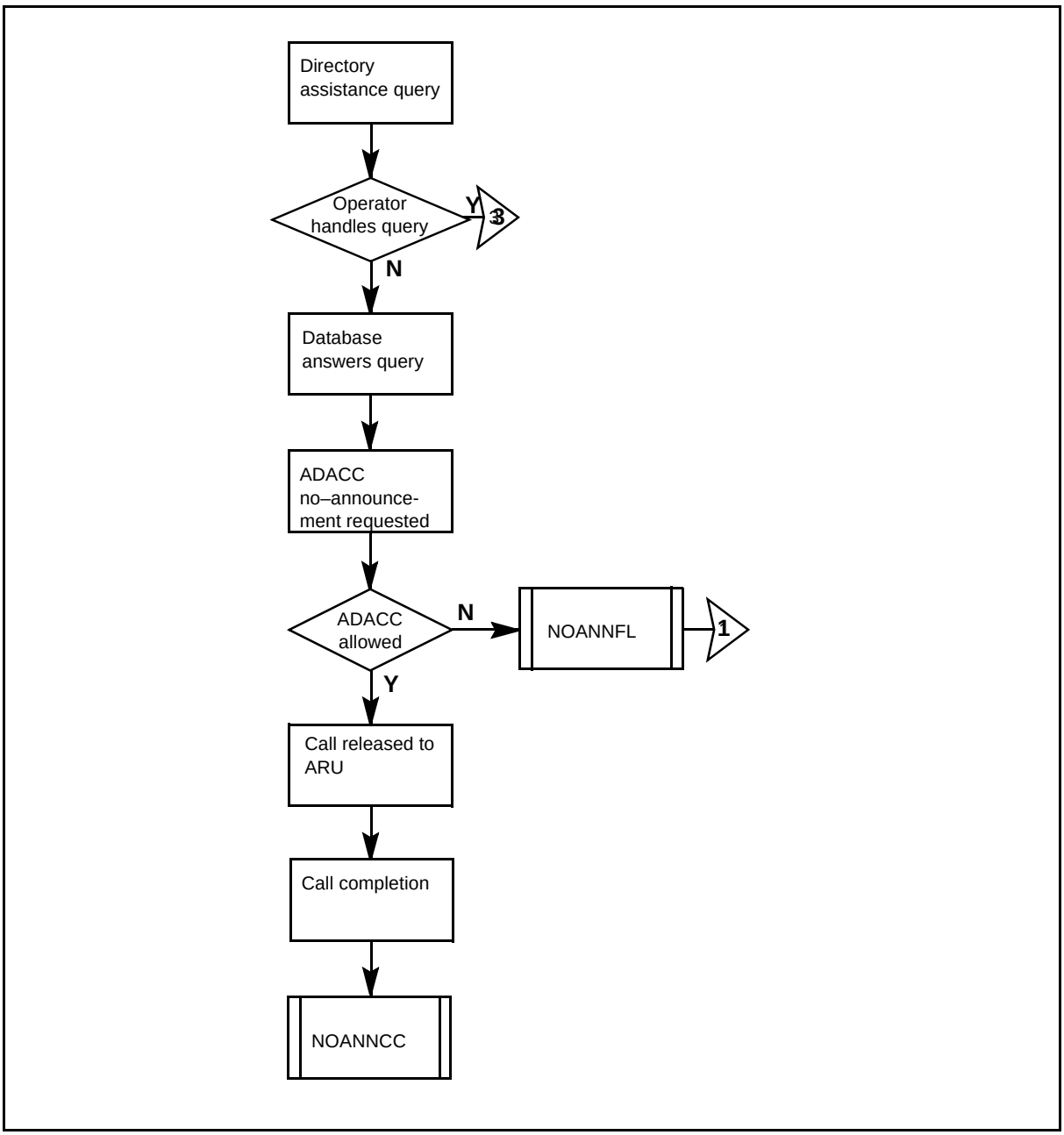
OM group TOPSDACC (continued)

OM group TOPSDACC registers



OM group TOPSDACC (continued)

OM group TOPSDACC registers: ADACC call with no announcement - success and failure



Register AACCPT

Automatic Directory Assistance Call Completion (ADACC) offers accepted (AACCPT)

Register AACCPT is incremented when a subscriber accepts an automatic call completion offer.

Register AACCPT release history

AACCPT was introduced in BCS28.

Associated registers

None

Associated logs

None

Extension registers

None

Register ADENY

Automatic directory assistance call completion (ADACC) denials (ADENY)

Register ADENY is incremented when a DAS request for automatic call completion is denied because of datafill, billing, carrier, or translation restrictions.

Register ADENY is also incremented if ADACC is not offered by the DMS switch because of local or toll restrictions added by the ADACC Toll Restrictions feature.

Register ADENY release history

ADENY was introduced in BCS28.

BCS33

Register ADENY is incremented if ADACC is not offered by the DMS switch because of local or toll restrictions added by the ADACC Toll Restrictions feature.

Associated registers

Validation formula: ADENY = AREQST - AOFFER

Note: An OM validation formula may appear inaccurate when taken around the interval where OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

OM group TOPSDACC (continued)

Associated logs

None

Extension registers

None

Register AOFFER

Automatic Directory Assistance Call Completion (ADACC) offers (AOFFER)

AOFFER is incremented when a subscriber is offered automatic call completion.

Register AOFFER release history

AOFFER was introduced in BCS28.

Associated registers

Validation formula: AOFFER = AREQST - ADENY

Note: An OM validation formula may appear inaccurate when taken around the interval where OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

Associated logs

None

Extension registers

None

Register AREQST

Automatic Directory Assistance Call Completion (ADACC) requests (AREQST)

AREQST is incremented when the DAS requests the DMS switch to determine whether automatic call completion can be offered to a DA call. The DMS switch checks for datafill, billing, carrier, or translation restrictions that prevent automatic call completion for a call.

Register AREQST release history

AREQST was introduced in BCS28.

Associated registers

Validation formula: AREQST = AOFFER - ADENY

Note: An OM validation formula may appear inaccurate when taken around the interval where OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

Associated logs

None

Extension registers

None

Register NOANNCC

No Announcement Automatic Directory Assistance Call Completion (ADACC) (NOANNCC)

Register NOANNCC measures the number of times that a subscriber completes a no-announcement ADACC call. This modification applies to the International Business Machine (IBM) DA protocol as well as the standard DA protocol.

Register NOANNCC release history

NOANNCC was introduced in DMSTOPS02.

Associated registers

None

Associated logs

None

Extension registers

None

Register NOANNFL

No Announcement Automatic Directory Assistance Call completion (ADACC) Requested and Denied (NOANNFL)

Register NOANNFL measures the number of times that a subscriber is denied no-announcement ADACC. This modification applies to the IBM DA protocol as well as the standard DA protocol.

OM group TOPSDACC (end)

Register NOANNFL release history

NOANNFL was introduced in DMSTOPS02.

Associated registers

None

Associated logs

None

Extension registers

None

Register OHACCPT

Operator-handled directory assistance call completions (DACC) (OHACCPT)

OHACCPT counts operator-handled DACC offers that are accepted by subscribers.

OHACCPT includes calls that are completed manually and semi-automatically by an operator. In a manual call completion, an operator enters the digits for the requested number. In a semi-automatic call completion, an operator selects the requested number from the DAS database and presses the TA key to transmit the digits.

Register OHACCPT release history

OHACCPT was introduced in BCS28.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TOPSDEV

OM description

Traffic Operator Position System output devices

TOPSDEV counts messages that are printed on Traffic Operator Position System (TOPS) output devices.

TOPS output devices are assigned to administration and billing positions within a TOPS traffic office.

Release history

OM group TOPSDEV was introduced prior to BCS20.

BCS21

Device type DADS added.

Registers

OM group TOPSDEV registers display on the MAP terminal as follows:

```
NUMMSGS
```

Group structure

OM group TOPSDEV provides one tuple for each output device.

Key field:
None

Info field:
TOPS_DEV_REGISTER_INFO

TOPS_DEV_REGISTER_INFO consists of

- the device identification number (1-9999)
- the device type (for example, SADS, HADS)
- hotel name acronym (three characters) (if applicable)
- team identification number (0-30)

Table TOPSPOS must be datafilled to specify information on TOPS positions.

Table TOPSDEV must be datafilled to specify information on TOPS devices.

Associated OM groups

None

Associated functional groups

The following functional groups are associated with OM group TOPSDEV:

- DMS-100 Local
- DMS-100/200
- DMS-100/200 TOPS
- DMS-200 Toll
- DMS-200 TOPS
- DMS-250
- DMS-300
- LBR
- Meridian SL-100 PBX
- DMS-MTX

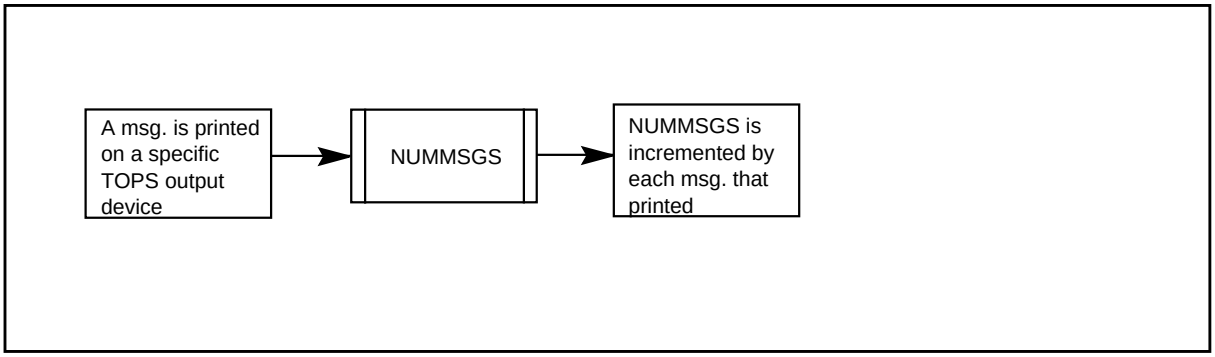
Associated functionality codes

The functionality codes associated with OM group TOPSDEV are shown in the following table.

Functionality	Code
TOPS Call Processing	NTX030CC
Host OC Data-Link Handling	NTX039AA
Delay Call Storage and Management	NTX633AA

OM group TOPSDEV (end)

OM group TOPSDEV registers



Register NUMMSGS

Number of messages

NUMMSGS is incremented when a message is printed on a TOPS output device.

Register NUMMSGS release history

NUMMSGS was introduced prior to BCS20.

BCS21

Device type DADS added.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TOPSEA

OM description

Traffic operator position system equal access

TOPSEA counts calls handled by a traffic operator position system (TOPS) operator for a carrier, transferred by a TOPS operator to a carrier, and forwarded by a TOPS operator to a carrier. It also counts inward service type calls received from a carrier, and calls that the initial carrier cannot complete and must be routed to an alternate carrier for completion.

Release history

OM group TOPSEA was introduced in BCS21.

BCS29

ALTFRMIC and ALTTOIC added.

BCS25

INWFRIC added.

DMSTOPS03

Registers updated (0-999 to 0-9999) to accomodate 4 digit CICs.

Registers

OM group TOPSEA registers display on the MAP terminal as follows:

```
FWDTOIC     XFRTOIC     HDLFORIC    INWFRIC
ALTFRMIC    ALTTOIC
```

Group structure

OM group TOPSEA provides one tuple for each carrier.

Key field:
None

Info field:
None

Carriers for which TOPS operator services are provided are specified in table TOPEACAR.

Associated OM groups

None

OM group TOPSEA (continued)

Associated functional groups

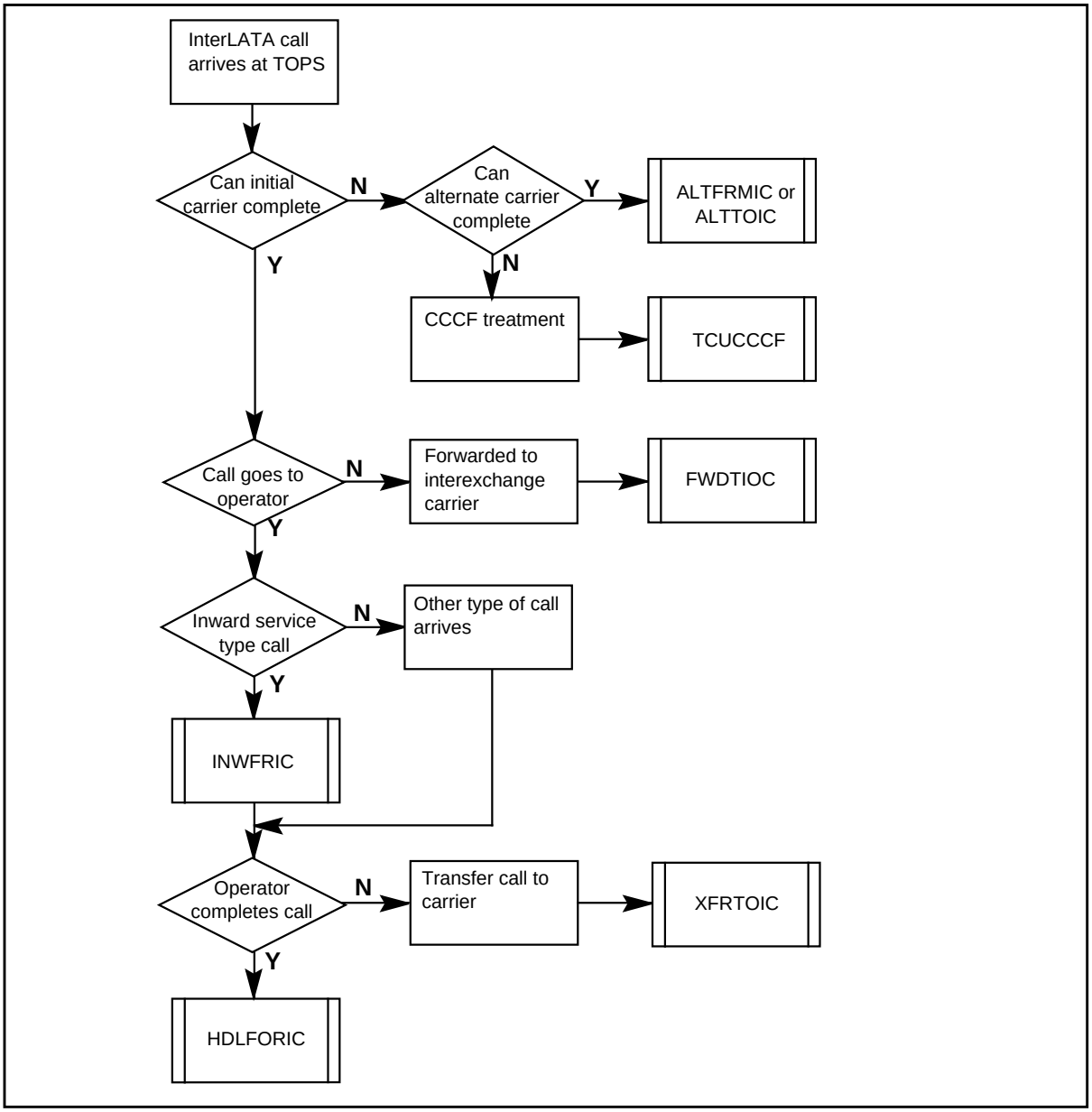
The TOPS Traffic Operator Position System functional group is associated with OM group TOPSEA.

Associated functionality codes

The functionality codes associated with OM group TOPSEA are shown in the following table.

Functionality	Code
TOPS InterLATA Carrier Service	NTX714AA
Alternate Carrier Selection	NTXE35AA

OM group TOPSEA registers



Register ALTFRMIC

Alternate carrier from initial carrier

ALTFRMIC counts traffic operator position system (TOPS) equal access calls that the initial carrier cannot complete and are routed to an alternate carrier for completion. This register is incremented for the initial carrier.

OM group TOPSEA (continued)

Register ALTFRMIC release history

ALTFRMIC was introduced in BCS29.

Associated registers

None

Associated logs

None

Extension registers

None

Register ALTTOIC

Initial carrier to alternate carrier

ALTTOIC counts traffic operator position system (TOPS) equal access calls that are routed to an alternate carrier because the initial carrier selected cannot complete the call. This register is incremented for the alternate carrier.

Register ALTTOIC release history

ALTTOIC was introduced in BCS29.

Associated registers

None

Associated logs

None

Extension registers

None

Register FWDTOIC

Forward to interexchange carrier

FWDTOIC counts traffic operator position system (TOPS) equal access interLATA calls that are forwarded to the interexchange carrier.

The following calls are TOPS equal access interLATA calls that are forwarded to the interexchange carrier:

- interLATA calls for which the telephone company does not provide operator service
- centralized automatic message accounting (CAMA) calls for which the telephone company provides operator services

FWDTOIC is incremented when the route to the carrier has been determined.

Register FWDTOIC release history

FWDTOIC was introduced in BCS21.

Associated registers

None

Associated logs

None

Extension registers

None

Register HDLFORIC

Handled for interexchange carriers

HDLFORIC counts interLATA calls handled by a traffic operator position system (TOPS) operator for interexchange carriers.

HDLFORIC is incremented when the call is released from the TOPS operator position.

Register HDLFORIC release history

HDLFORIC was introduced in BCS21.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TOPSEA (end)

Register INWFRIC

Inward from interexchange carrier

INWFRIC counts inward service type calls received from an interexchange carrier.

Inward service type calls are requests for services such as verification and directory assistance.

Register INWFRIC release history

INWFRIC was introduced in BCS25.

Associated registers

None

Associated logs

None

Extension registers

None

Register XFRTOIC

Transferred to interexchange carrier

XFRTOIC counts traffic operator position system (TOPS) equal access interLATA calls that are transferred by the operator to the carrier.

These calls are not completed by the operator.

XFRTOIC is incremented when the call is released from the operator position.

Register XFRTOIC release history

XFRTOIC was introduced in BCS21.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TOPSGCA

OM description

TOPS global competitive access

This OM group provides information about TOPS GCA calls. This OM group is indexed by the carrier number as defined in table TOPCACAR. It is an informational OM group.

Release history

OM group TOPSGCA was introduced in TOPS11.

Registers

The following OM group TOPSGCA registers display on the MAP terminal as follows:

```
omshow topsgca active

TOPSGCA

CLASS:   ACTIVE
START:1998/04/16 11:00:00 THU; STOP: 1998/04/16 11:22:19 THU;
SLOWSAMPLES:        14 ; FASTSAMPLES:        134 ;

       KEY  (GCA_CIC_RANGE)
                GCACOMP        GCAXFR            GCACDIR

123              578            0                 0
191              0              78                0
2222             54             0                 47
```

Group structure

OM group TOPSGCA provides a tuple for each carrier number datafilled in table TOPCACAR.

Table TOPCACAR must be datafilled with the carrier numbers before they appear in this OM group.

Key field:

none

OM group TOPSGCA (continued)

Info field:
Carrier Number as defined in table TOPCACAR

Associated OM groups

none

Associated functional groups

The following functional group is associated with OM group TOPSGCA:

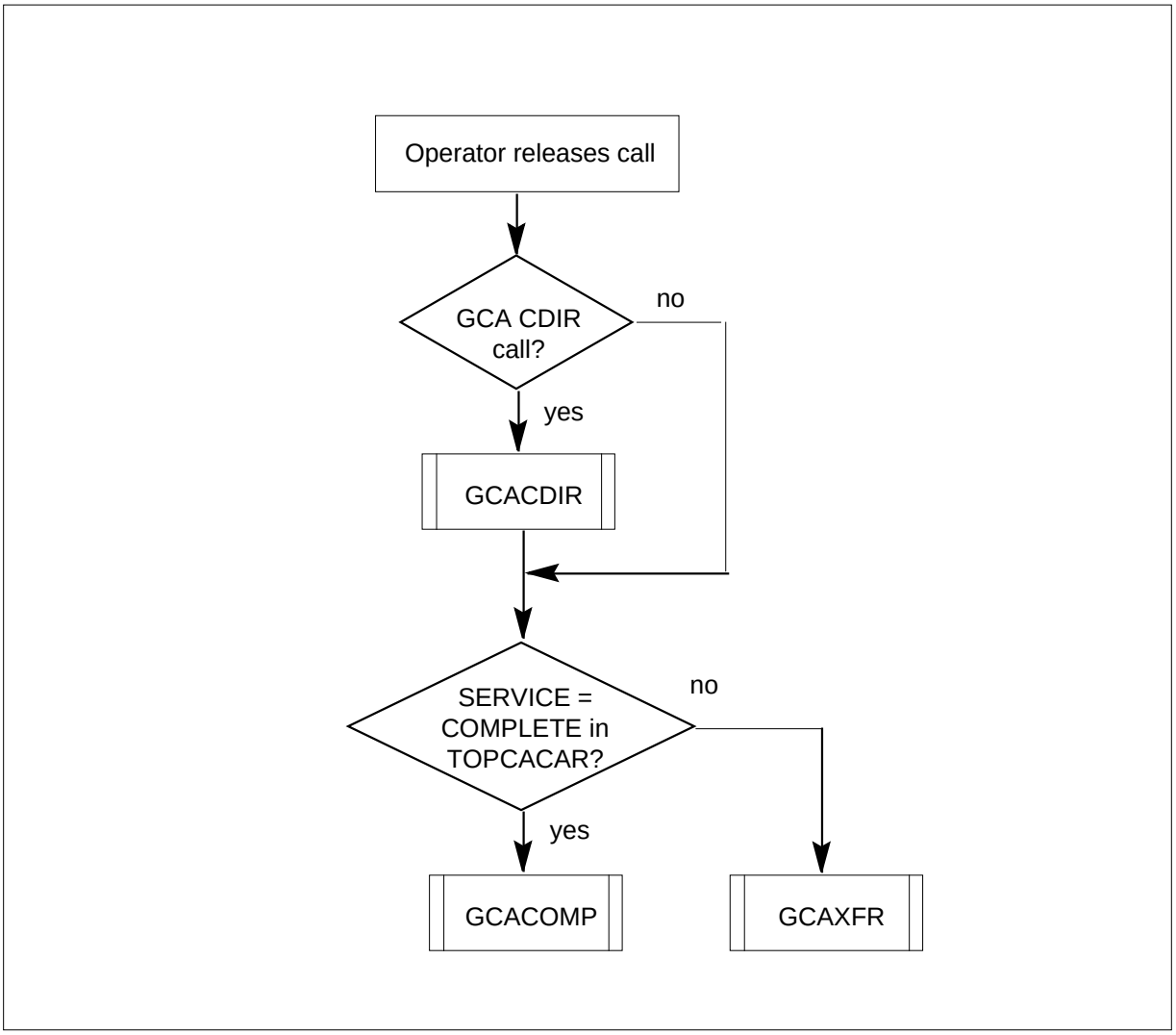
- Global operator services, GOS00001

Associated functionality codes

The functionality codes associated with OM group TOPSGCA are shown in the following table.

Functionality	Code
Global Competitive Access II	GOS00007

OM group TOPSGCA registers



Register GCACDIR

Register GCA Country Direct

This register is pegged for GCA CDIR calls when released from position.

To test this register, make a CDIR call arrive at position with a GCA CIC as defined in table CDCSOPTS. Release the call and verify register GCACDIR is pegged.

OM group TOPSGCA (continued)

Register GCACDIR release history

Register GCACDIR was introduced in TOPS11 by feature AF7576. For further information, refer to functionality Global Competitive Access II, GOS00007, in the GTOP DMS-100 Translations Guide, 297-8441-350.

Associated registers

none

Associated logs

none

Extension registers

none

Register GCACOMP

Register GCA Complete

This register counts the number of GCA calls that are completed by the Operating Company on behalf of the carrier. The carrier service of COMPLETE is defined in table TOPCACAR.

The register is pegged when the operator releases the call from position.

To test this register, bring a call to position and assign a COMPLETE carrier. Outpulse and release the call from position. Verify that the GCACOMP register is pegged.

Register CGACOMP release history

Register GCACOMP was introduced in TOPS11 by feature AF7576.

Associated registers

none

Associated logs

none

Extension registers

none

Register GCAXFR

Register GCA Transfer

This register counts the number of GCA calls which are transferred to the carrier office by the Operating Company. The carrier service of TRANSFER is defined in table TOPCACAR.

The register is pegged when the operator releases the call from position.

To test this register, bring a call to position and assign a TRANSFER carrier. Verify a route is found and the transfer display is present. Release the call from position. Verify that the GCAXFR register is pegged.

Register GCAXFR release history

Register GCAXFR was introduced in TOPS11 by feature AF7576.

Associated registers

none

Associated logs

none

Extension registers

none

OM group TOPSINCC

OM description

TOPS international calling card

TOPSINCC pegs statistics for all ISO cards, that is, those conforming to the ISO 7812 standard including commercial credit cards and International Telegraph and Telephone Consultative Committee (CCITT) cards.

TOPSINCC pegs information indicating the use of ISO billing cards for TOPS calls that are alternately billed. Registers are defined to record:

- the number of special numbers that are considered potential ISO cards (INTCCFMT); register INTCCFMT
- of the special numbers that are potential ISO cards, the number whose length does or does not match the card length specified in table INTCCFMT; registers LENPASS and LENFAIL
- the results of format checks on ISO cards; registers LUHNPASS and LUHNFAIL
- the type of validation performed on ISO cards; registers VALCCTRN
- the number of carrier select options pegged (CARSEL)

Release history

GTOPS8.1 and TOPS09

Three new registers, CCCSAL, CCCSBL, and CCCSSUB are added to this release.

BCS29

OM group TOPSINCC was introduced in BCS29.

Registers

OM group TOPSINCC registers display on the MAP terminal as follows:

```
OMSHOW TOPSINCC ACTIVE

CLASS:   ACTIVE
START:1997/06/12 11:00:00 THU;STOP: 1997/06/12 11:22:28 THU;
SLOWSAMPLES:        14 ; FASTSAMPLES:        135 ;

INFO (TOPSINCC_INDEX_REGISTERINFO)
   INTCCFMT       LUHNPASS       LUHNFAIL       VALCCTRN
   LENPASS        LENFAIL        CCCSAL         CCCSAL2
   CCCSBL         CCCSBL2        CCCSSUB        CCCSSUB2

1 DEFAULTNAME
   3               0              0             0
   0               0              1             0
   1               0              1             0
```

Group structure

OM group TOPSINCC provides 1 to 63.

Key field:
CARDBRND

Info field:
TOPSINCC_INDEX_REGISTERINFO

Number of tuples:
1 to 63

Associated OM groups

None

Associated functional groups

The AABS Alternate Billing Service functional group is associated with OM group TOPSINCC.

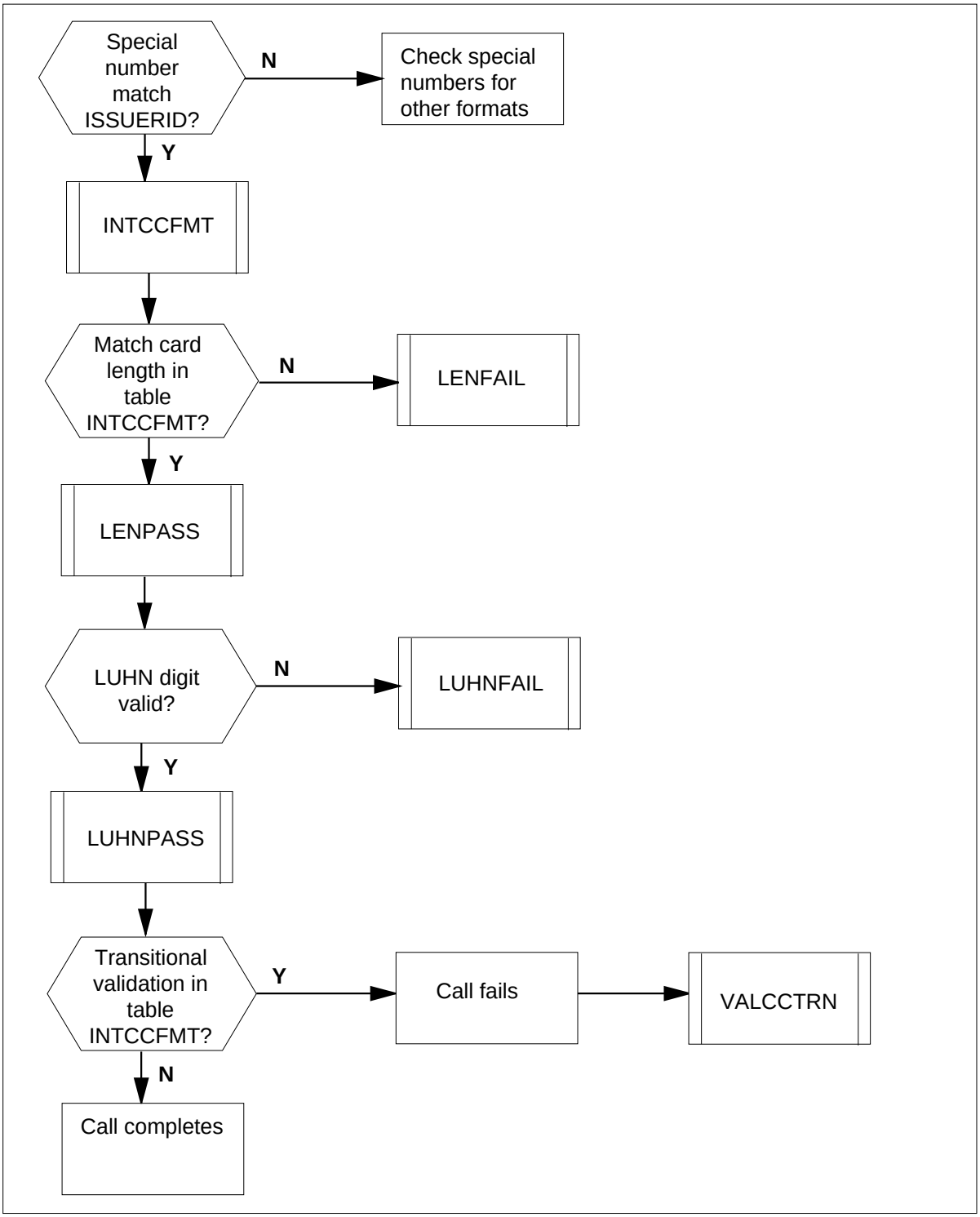
OM group TOPSINCC (continued)

Associated functionality code

The functionality code associated with OM group TOPSINCC is shown in the following table.

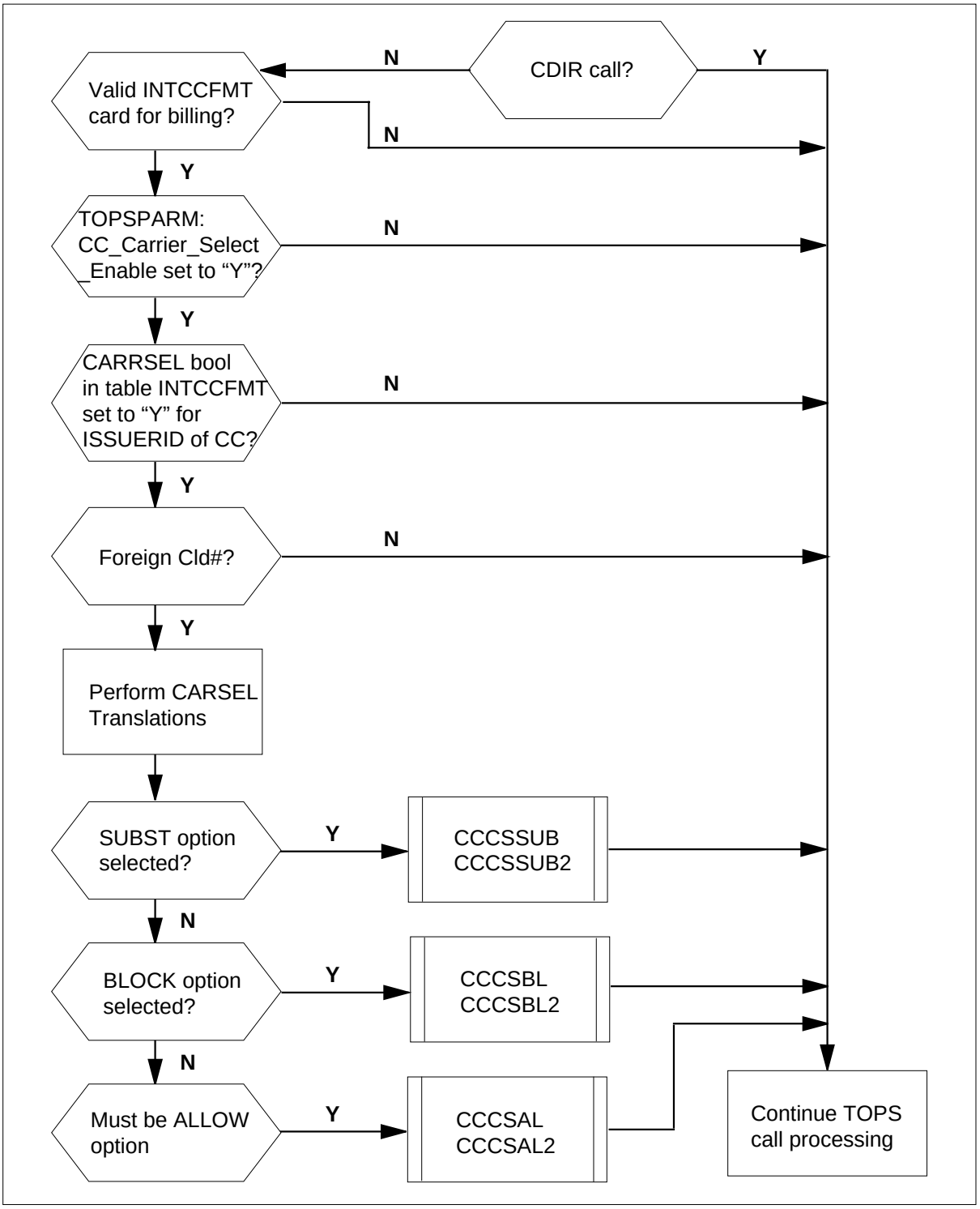
Functionality	Code
Expanded Calling Card Format SS7	ABS00001
ENSV Carrier Selection	ENSV0001

OM group TOPSINCC registers



OM group TOPSINCC (continued)

OM group TOPSINCC registers (continued)



Register CCCSAL

Calling Card Carrier Selection option ALLOW

Register CCCSAL counts the number of CC calls that have received carrier selection service resulting in the ALLOW option.

Register CCCSAL release history

Register CCCSAL was introduced in GTOPS8.1 and TOPS09.

Associated registers

None

Associated logs

None

Extension registers

CCCSAL2

Register CCCSBL

Calling Card Carrier Selection option BLOCK

Register CCCSBL counts the number of CC calls that have received carrier selection service resulting in the BLOCK option.

Register CCCSBL release history

Register CCCSBL was introduced in GTOPS8.1 and TOPS09.

Associated registers

None

Associated logs

None

Extension registers

CCCSBL2

Register CCCSSUB

Calling Card Carrier Selection option SUBST

Register CCCSSUB counts the number of CC calls that have received carrier selection service resulting in the SUBST option.

OM group TOPSINCC (continued)

Register CCCSSUB release history

Register CCCSSUB was introduced in GTOPS8.1 and TOPS09.

Associated registers

None

Associated logs

None

Extension registers

CCCSSUBT2

Register INTCCFMT

International calling card format

This register is pegged when processing any ISO card (commercial credit card or CCITT calling card).

A peg to this register indicates that a special number was entered and that it matched field ISSUERID in table INTCCFMT. (Cards that match field ISSUERID in table INTCCFMT are considered potential ISO cards.)

Note: No format checks have been performed, except for ISSUERID match.

Register INTCCFMT release history

Register INTCCFMT was introduced in BCS29.

Associated registers

Register INTCCFMT = Register LENPASS + Register LENFAIL

Associated logs

None

Extension registers

None

Register LENPASS

Length pass

Register LENPASS indicates the number of special numbers that meet the following conditions:

- the special number matches field ISSUERID in table INTCCFMT (indicating that the card may be an ISO card)
- the length of the special number matches the card length specified in table INTCCFMT

Register LENPASS release history

Register LENPASS was introduced in BCS29.

Associated registers

Register INTCCFMT = Register LENPASS + Register LENFAIL

Associated logs

None

Extension registers

None

Register LENFAIL

Length fail

Register LENFAIL indicates the number of special numbers that match field ISSUERID in table INTCCFMT and are considered potential ISO billing cards but whose length does not match the card length specified in table INTCCFMT.

Register LENFAIL release history

Register LENFAIL was introduced in BCS29.

Associated registers

Register INTCCFMT = Register LENPASS + Register LENFAIL

Associated logs

None

Extension registers

None

Register LUHNPASS

Luhn check digit passes

OM group TOPSINCC (continued)

Register LUHNPASS indicates:

- the number matches field ISSUERID in table INTCCFMT (and is thus, a potential ISO card)
- the length of the entered billing card does match the card length specified in table INTCCFMT
- that either the LUHN digit check was performed and did pass or was not performed (due to the fact that table INTCCFMT, field LUHNCHK was set to no)

This register is pegged for all ISO cards (both CCITT calling cards and commercial credit cards).

Register LUHNPASS release history

Register LUHNPASS was introduced in BCS29.

Associated registers

Register LENPASS = Register LUHNPASS + Register LUHNFAIL

Associated logs

None

Extension registers

None

Register LUHNFAIL

Luhn check digit fails

Register LUHNFAIL indicates:

- the number matches field ISSUERID in table INTCCFMT (and is thus, a potential ISO card
- the length of the entered billing card does match the card length specified in table INTCCFMT
- that the LUHN digit check was performed and failed

This register is pegged for all ISO cards (both CCITT calling cards and commercial credit cards).

Register LUHNFAIL release history

Register LUHNFAIL was introduced in BCS29.

Associated registers

Register LENPASS = Register LUHNPASS + Register LUNFAIL

Associated logs

None

Extension registers

None

Register VALCCTRN

Transitional validation calling cards

Register VALCCTRN is pegged when the entered billing card matches a tuple in table INTCCFMT and field VAL14TRN is set to N(o). It is pegged for all ISO cards.

Register VALCCTRN release history

Register VALCCTRN was introduced in BCS29.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TOPSISUP

OM description

TOPS and ISUP Interactions

The TOPSISUP OM group contains information about Integrated Services Digital Network (ISUP) trunks in the Traffic Operator Position System (TOPS) environment. This OM group is indexed by the trunk groups defined in table ISUPTRK. It is an informational OM group.

OM group history

SN06 (DMS)

Feature A00000816 was introduced to allow wireless calls that receive TOPS Directory Assistance (DA) to be released back to the originating Mobile Switching Center (MSC) for call completion. These calls peg registers in group TOPSISUP

TOPS05

OM group TOPSISUP was introduced in TOPS05.

Registers

OM group TOPSISUP registers display on the MAP terminal as follows:

```
> OMSHOW TOPSISUP ACTIVE

TOPSISUP

CLASS: ACTIVE
START:1995/04/21 15:00:00 FRI; STOP:1995/04/21 15:12:58 FRI;
SLOWSAMPLES: 7; FASTSAMPLES: 77

        KEY (COMMON_LANGUAGE_NAME)
                 DARLT                      DARLT2

    0   ISUPTRK1
                           5                        0
    1   ISUPTRK2
                           0                        0
    2   ISUPTRK3
                           3                        0
```

Group structure

OM group TOPSISUP provides one tuple for each trunk.

OM group TOPSISUP (continued)

Key field:
COMMON_LANGUAGE_NAME (CLLI)

Info field:
None

Associated OM groups

None

Associated functional groups

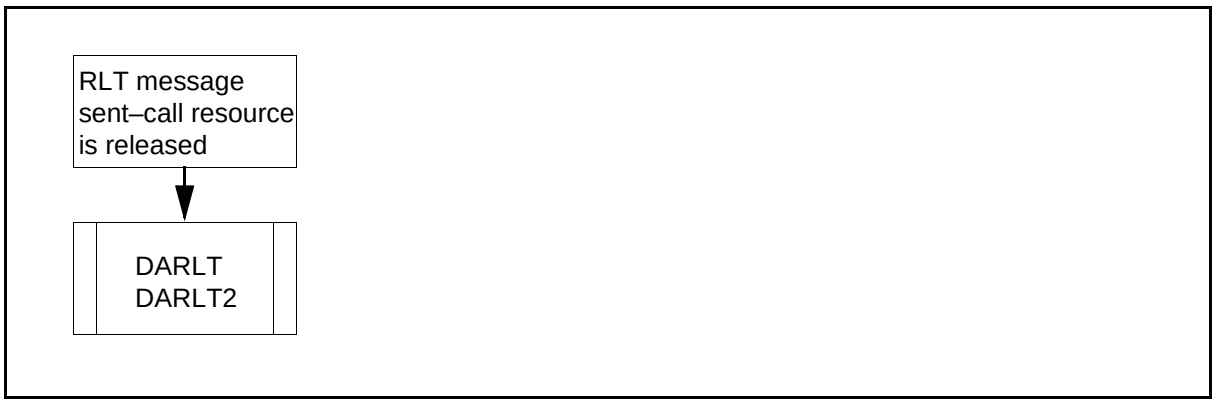
None

Associated functionality codes

The functionality codes associated with OM group TOPSISUP are shown in the following table.

Functionality	Code
GR317/394 ISUP/TOPS	OSEA0005

OM group TOPSISUP registers



Register DARLT

Directory Assistance Release Link Trunking

DARLT counts the number of RLT requests per trunk group performed for DA Call Completion calls. Currently only station paid ADACC calls are supported. It is pegged when:

- TOPS ISUP RLT is provided on a trunk group in table ISUPTRK.
- TOPS I-S41 RLT is provided on a trunk group in table ISUPTRK.

Register DARLT release history

DARLT was introduced in TOPS05.

Associated registers

None

Associated logs

None

Extension registers

DARLT2

OM group TOPSKFAM

OM description

Traffic operator position system key function automatic message accounting

TOPSKFAM provides information about automatic message accounting (AMA) billing records that are produced by traffic operator position system (TOPS) operators using the GEN AMA key on TOPS-IV positions or the SVCS key on TOPS-MP positions.

The GEN AMA and SVCS keys are used by TOPS operators to generate multiple AMA billing records for single calls receiving toll and assistance (TA) or directory assistance (DA).

TOPSKFAM has two registers: TAGENAMA and DAGENAMA.

TAGENAMA is incremented when a TOPS operator uses the GEN AMA or SVCS keys to produces an AMA billing record for a TA call at a TOPS-MP or TOPS-IV position.

DAGENAMA is incremented when a TOPS operator uses the SVCS key at a TOPS-MP position to create an AMA billing record for a DA call while continuing to provide additional DA service to the call.

The data supplied by TOPSKFAM is used to monitor the multiple billing performed by TOPS operators.

Release history

OM group TOPSKFAM was introduced in BCS26.

Registers

OM group TOPSKFAM registers display on the MAP terminal as follows:

```
TAGENAMA      DAGENAMA
```

Group structure

OM group TOPSKFAM provides one tuple for each office.

Key field:
None

Info field:
None

OM group TOPSKFAM (continued)

Office parameter TOPS_GEN_AMA_SET in table OFCENG defines the types of calls on which TOPS operators can perform multiple AMA billing.

Associated OM groups

None

Associated functional groups

The following functional groups are associated with OM group TOPSKFAM:

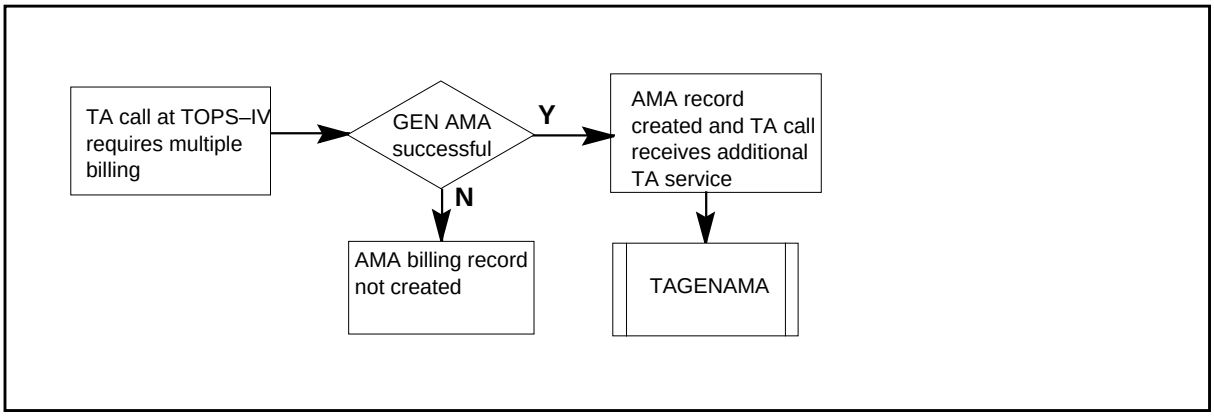
- DMS-200 TOPS
- DMS-200 ITOPS

Associated functionality codes

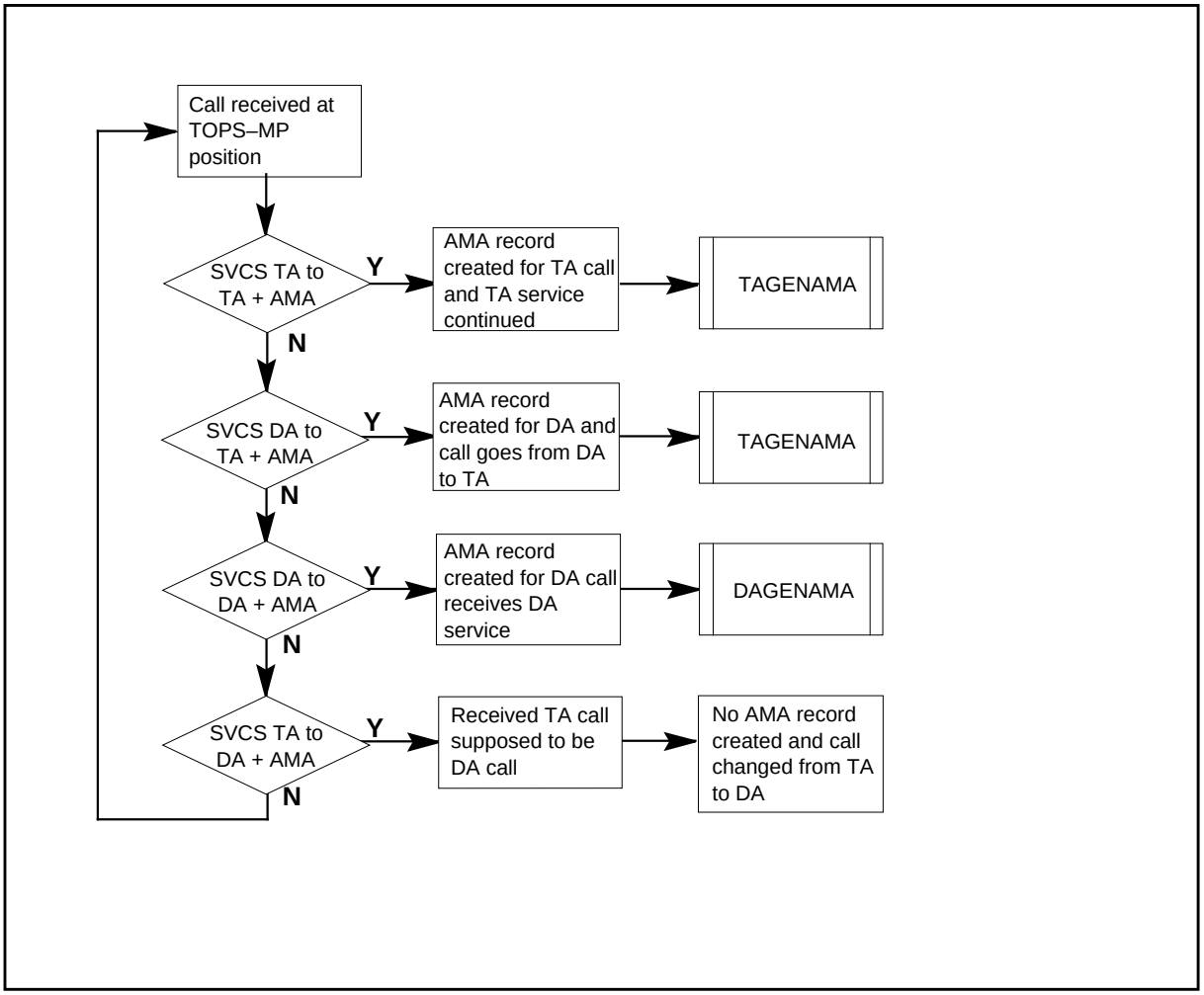
The functionality codes associated with OM group TOPSKFAM are shown in the following table.

Functionality	Code
TOPS AWT Enhancements	NTXA28AA

OM group TOPSKFAM registers: tops IV position



OM group TOPSKFAM registers: tops mp position



Register DAGENAMA

Directory assistance generate automatic message accounting

DAGENAMA is incremented when a traffic operator position system (TOPS) operator uses the SVCS key at a TOPS-MP position to create an automatic message accounting (AMA) billing record for a directory assistance (DA) call while continuing to provide additional DA service to the call.

DAGENAMA is not incremented if an operator makes an unsuccessful attempt to generate an AMA record.

Register DAGENAMA release history

DAGENAMA was introduced in BCS26.

OM group TOPSKFAM (end)

Associated registers

None

Associated logs

None

Extension registers

None

Register TAGENAMA

Toll and assistance generate automatic message accounting

TAGENAMA is incremented when a traffic operator position system (TOPS) operator uses one of the following:

- the GEN AMA key at a TOPS-IV position to create an automatic message accounting (AMA) record for a toll and assistance (TA) call
- the SVCS key at a TOPS-MP position to create an AMA record for a TA call while providing additional TA service to the call
- the SVCS key at a TOPS-MP position to create an AMA record for a directory assistance (DA) call that changes from a DA to a TA call

TAGENAMA is not incremented if an operator makes an unsuccessful attempt to generate an AMA record.

Register TAGENAMA release history

TAGENAMA was introduced in BCS26.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TOPSLNP

OM description

Traffic Operator Position System Local Number Portability (TOPSLNP)

In TOPS07, OM group TOPSLNP is added to track Local Number Portability (LNP) queries usage in the Traffic Operator Position System (TOPS) environment.

Release history

OM group TOPSLNP was introduced in TOPS07.

TOPS07

Functional group Operator Services Equal Access (OSEA0001) introduces OM group TOPSLNP through the TOPS LNP functionality (OSEA0008).

Registers

OM group TOPSLNP registers display on the MAP terminal as follows:

```
>OMSHOW TOPSLNP ACTIVE

TOPSLNP

CLASS: ACTIVE
START:1996/08/19 14:30:00 MON;STOP:1996/08/19 14:32:39 MON;
SLOWSAMPLES:        2 ; FASTSAMPLES:       16 ;

          LNPQRY    LNPQRY2    LNPPORT     LNPPORT2
          LNPNPRT   LNPNPRT2   LNPACG      LNPCAN
          LNPERR

   0
                0          0         0           0
                0          0         0           0
```

Group structure

OM group TOPSLNP provides one tuple per office.

Key field:
None

Info field:
None

OM group TOPSLNP (continued)

Associated OM groups

The following OM groups are associated with OM group TOPSLNP:

- TOPASCCP - tracks TOPS LNP Signaling Connection Control Part (SCCP) statistics.
- TOPATCAP - tracks TOPS LNP Transaction Capability Application Part (TCAP) statistics.
- TOPAAPPL - tracks TOPS Advanced Intelligent Network (AIN) statistics for LNP.

The TOPS LNP TCAP interface feature introduces these OMs in TOPS07. The registers in these groups provide more precise information concerning problems that may arise in processing TOPS LNP queries.

Note: Refer to the “OM group TOPASCCP," “ OM group TOPATCAP," and “OM group TOPAAPPL" sections in this document.

Associated functional groups

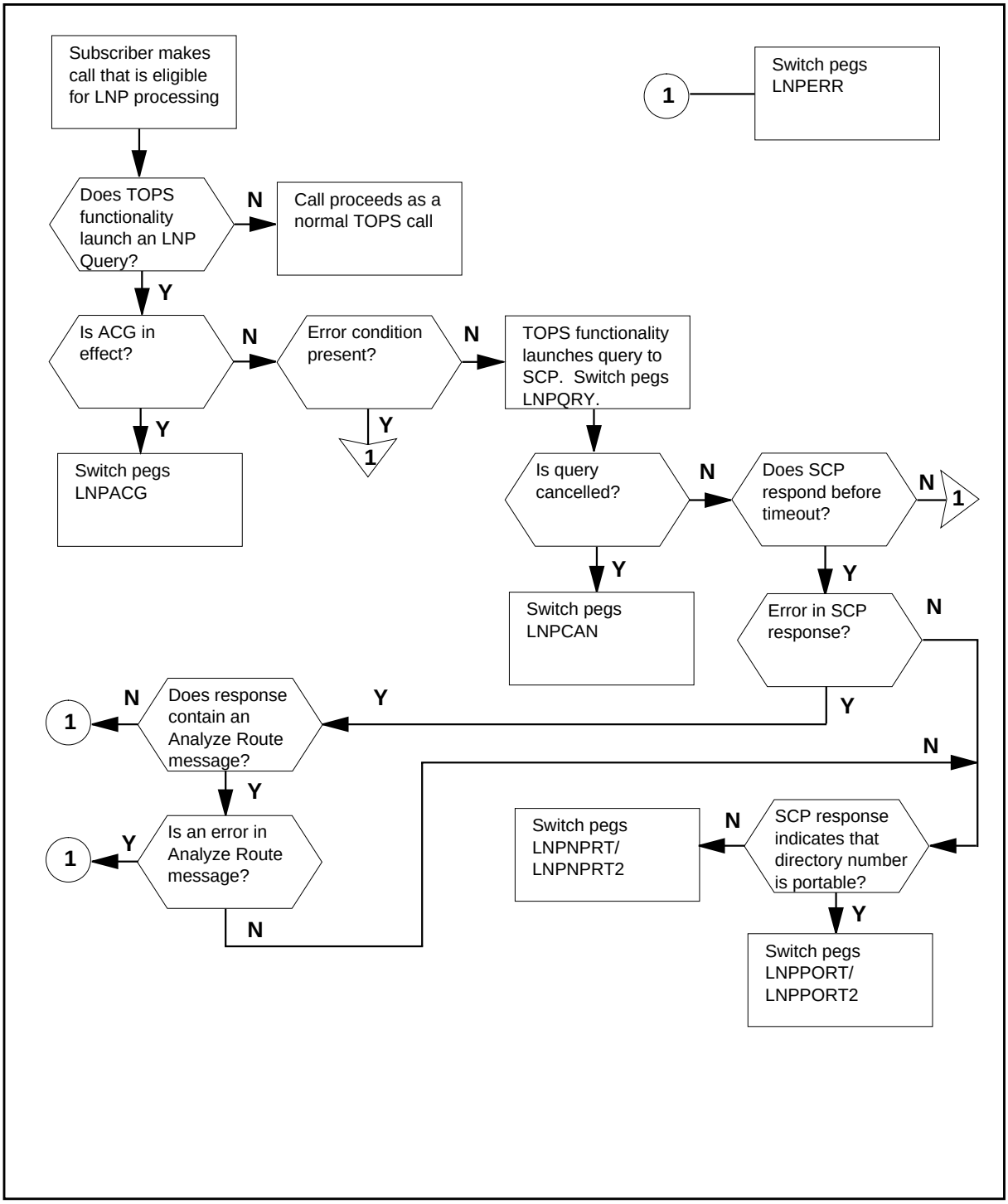
Functional group Operator Services Equal Access (OSEA0001) is associated with OM group TOPSLNP.

Associated functionality codes

The functionality codes associated with OM group TOPSLNP are shown in the following table.

Functionality	Code
TOPS LNP	OSEA0008

OM group TOPSLNP registers



OM group TOPSLNP (continued)

Register LNPACG

Register Local Number Portability Automatic Code Gapping (LNPACG)

The DMS switch pegs register LNPACG each time a TOPS LNP query is not launched because Automatic Code Gapping (ACG) is in effect.

Register LNPACG release history

Register LNPACG was introduced in TOPS07.

Associated registers

None

Associated logs

Log TOPS600 is generated when ACG blocks a TOPS LNP query.

Extension registers

None

Register LNPCAN

Register Local Number Portability Cancelled (LNPCAN)

The DMS switch pegs register LNPCAN each time a TOPS LNP query is launched and then cancelled.

Note: A query may be cancelled by operator action or because a non-operator-hold trunk associated with the query was released from the call.

Register LNPCAN release history

Register LNPCAN was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register LNPERR

Register Local Number Portability Error (LNPERR)

The DMS switch pegs register LNPERR each time a TOPS LNP query is required but cannot be launched because of an error condition. The DMS switch also pegs this register when a query is successfully launched but an error prevents receipt or processing of a valid response.

The following are possible query errors:

- subsystem not in service
- network congestion
- query encode problem
- query send problem
- reject received
- query timeout
- returned CalledPartyID not a 10-digit North American Numbering Plan (NANP) number

Note: Automatic Code Gapping is not considered an error; therefore, the DMS switch does not peg register LNPERR when ACG is in effect.

Register LNPERR release history

Register LNPERR was introduced in TOPS07.

Associated registers

In most cases when the DMS switch pegs LNPERR, a corresponding register in the TOPASCCP, TOPATCAP, or TOPAAPPL OM groups is also pegged.

Associated logs

The following logs are associated with register LNPERR:

- TOPS301 - generated when a query fails because the TOPSLNP subsystem is not in service.
- TOPS600 - generated when a query times out.
- TOPS601 - generated when the CalledParyID parameter received in the LNP response is not a valid 10-digit NANP number.

OM group TOPSLNP (continued)

For other query errors, the following logs may be generated:

- TCAP100
- TCAP101
- TCAP199

Note: Refer to the *Logs Reference Manual* for additional information about these logs.

Extension registers

None

Register LNPNPRT

Register Local Number Portability Non-ported (LNPNPRT)

The DMS switch pegs register LNPNPRT each time the SCP response to a TOPS LNP query indicates that the queried number is not ported.

Register LNPNPRT release history

Register LNPNPRT was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

LNPNPRT2

Register LNPPORT

Register Local Number Portability Ported (LNPPORT)

The DMS switch pegs register LNPPORT each time the Service Control Point (SCP) response to a TOPS LNP query indicates that the queried number is ported.

Register LNPPORT release history

Register LNPPORT was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

LNPPORT2

Register LNPQRY

Register Local Number Portability Queries (LNPQRY)

The DMS switch pegs register LNPQRY each time it launches a TOPS LNP query.

Register LNPQRY release history

Register LNPQRY was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

LNPQRY2

OM group TOPSMISC

OM description

Traffic operator position system miscellaneous

TOPSMISC provides information on trouble reports, use of automatic rating and manual rating for calls, and messages lost in TOPS operator centralization offices.

Release history

OM group TOPSMISC was created prior to BCS20.

TOPS05

Registers AUTHATT and AUTHFAIL added.

TOPS04

Registers TBIATT and TBIACC added.

BCS35

Register CLGBLKD added.

BCS33

Register PSTIMOUT added. TMSGLOST and TOPRLOST deleted.

BCS32

Registers TMSGLOST and TOPRLOST moved to OM group TOPSVC

BCS25

TOTLINW and NONCINW added.

BCS24

Registers OGTKEY1, OGTKEY2, OGTKEY3, OGTKEY4, OGTKEY5, OGTKEY6, OGTKEY7 deleted.

BCS23

Registers POSACS added. OGTKEY1, OGTKEY2, OGTKEY3, OGTKEY4, OGTKEY5, OGTKEY6, OGTKEY7 zeroed.

Registers

TOPSMISC registers appear at the MAP terminal as follows:

```
OMSHOW example:

TOPSMISC
CLASS:   ACTIVE
START:1995/05/04 14:30:00 THU; STOP: 1995/05/04 14:56:16 THU;
SLOWSAMPLES:        16 ; FASTSAMPLES:        158 ;

   TBLREPRT          RONITBL          AUTORATE         MANRATE
   TDUNLOST          POSACS           TOTLINW          NONCINW
   PSTIMOUT          CLGBLKD          TBIATT           TBIACC
   AUTHATT           AUTHFAIL

    0           0          0          0          0
                0          3          0          0
                0          0          0          0
                0          0
```

Group structure

TOPSMISC provides one tuple for each office.

Key field:
None

Info field:
None

Associated OM groups

None

Associated functional groups

The TOPS functional group is associated with OM group TOPSMISC.

Associated functionality codes

The functionality codes associated with OM group TOPSMISC are shown in the following table.

(Sheet 1 of 2)

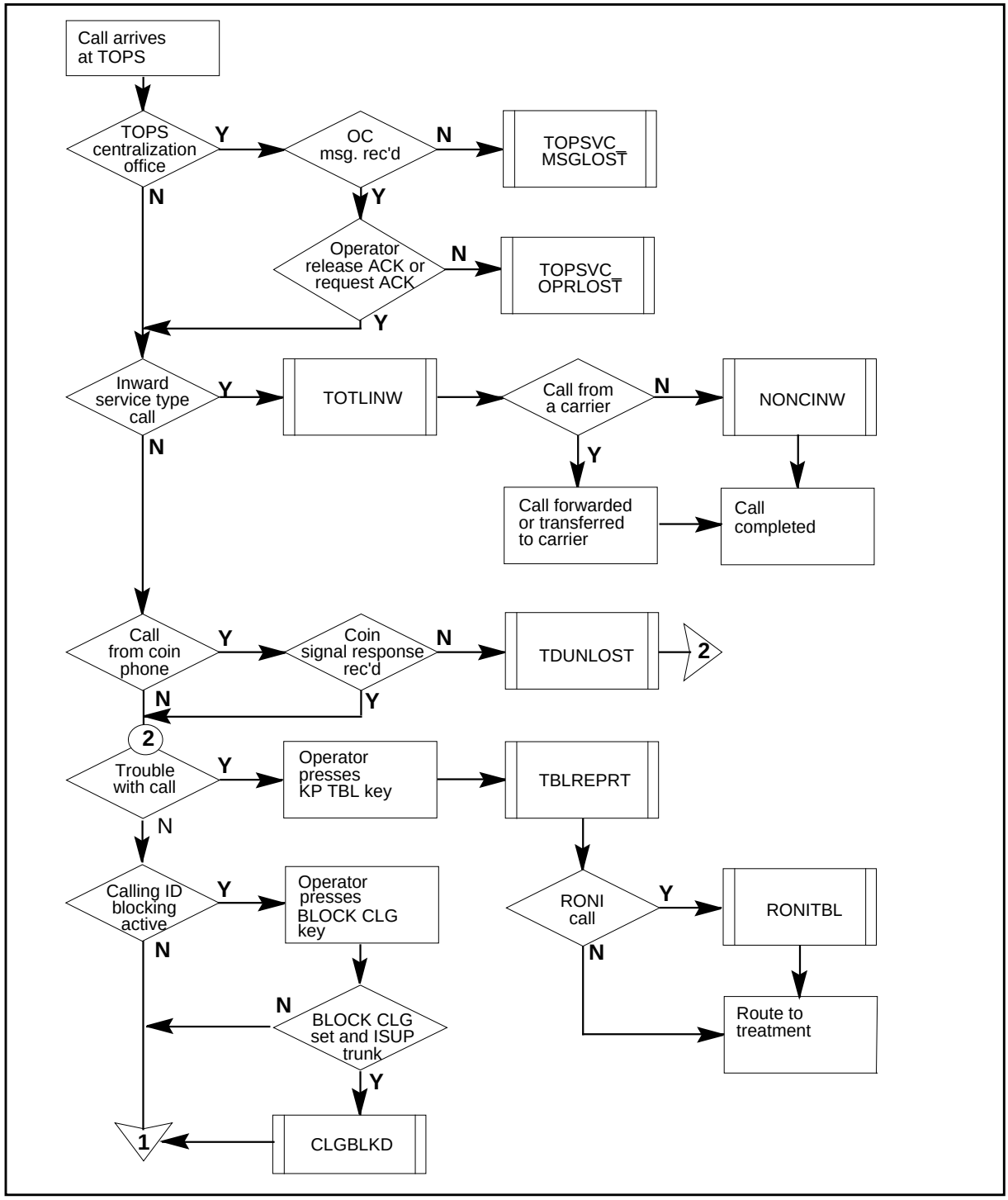
Functionality	Code
TOPS Call Processing Features (Rep NTX030CB)	OSB00001

OM group TOPSMISC (continued)

(Sheet 2 of 2)

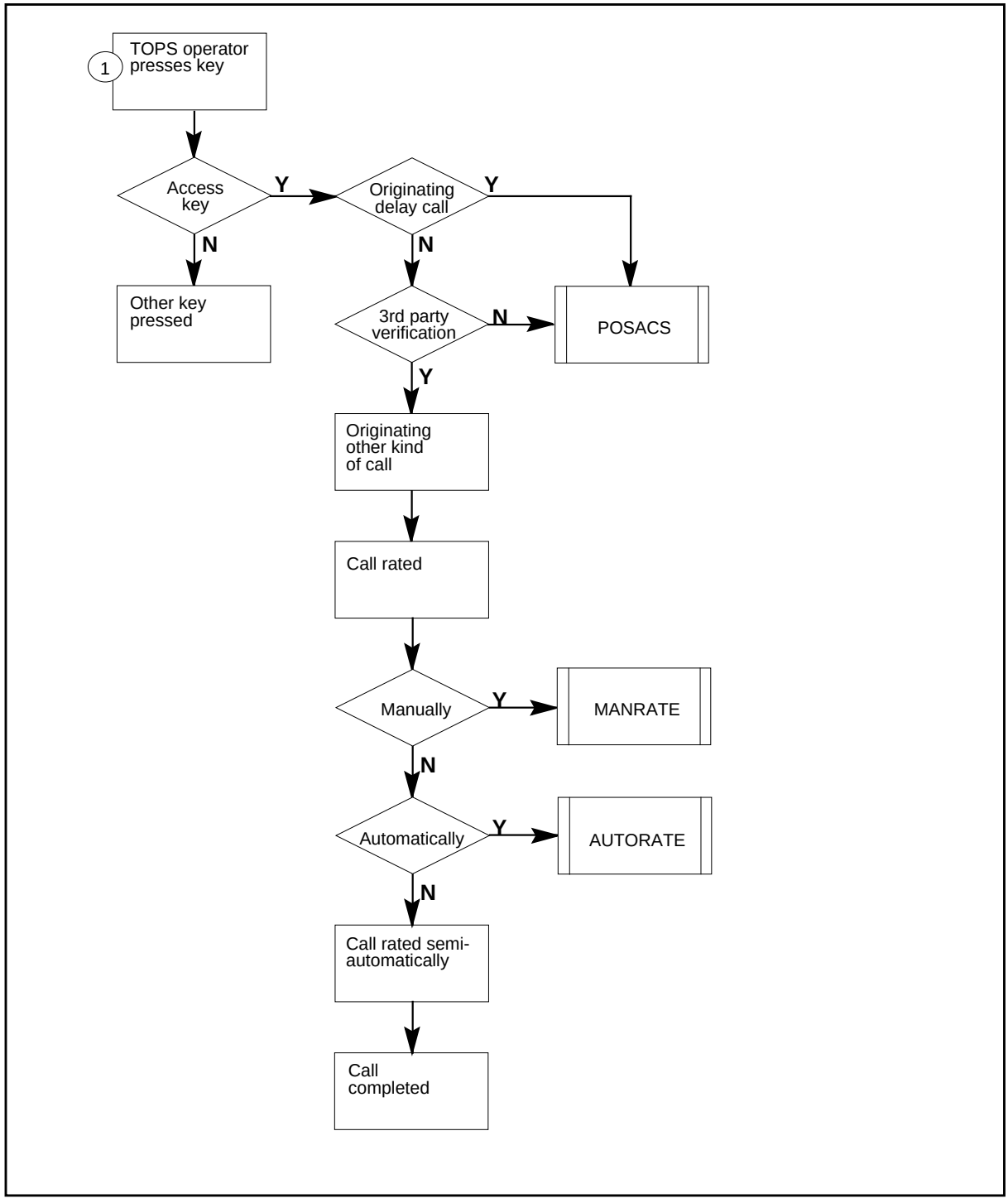
Functionality	Code
Host OC Data—Link Handling	OSB00001
TOPS Auth Code Billing	ABS00013

OM group TOPSMISC registers

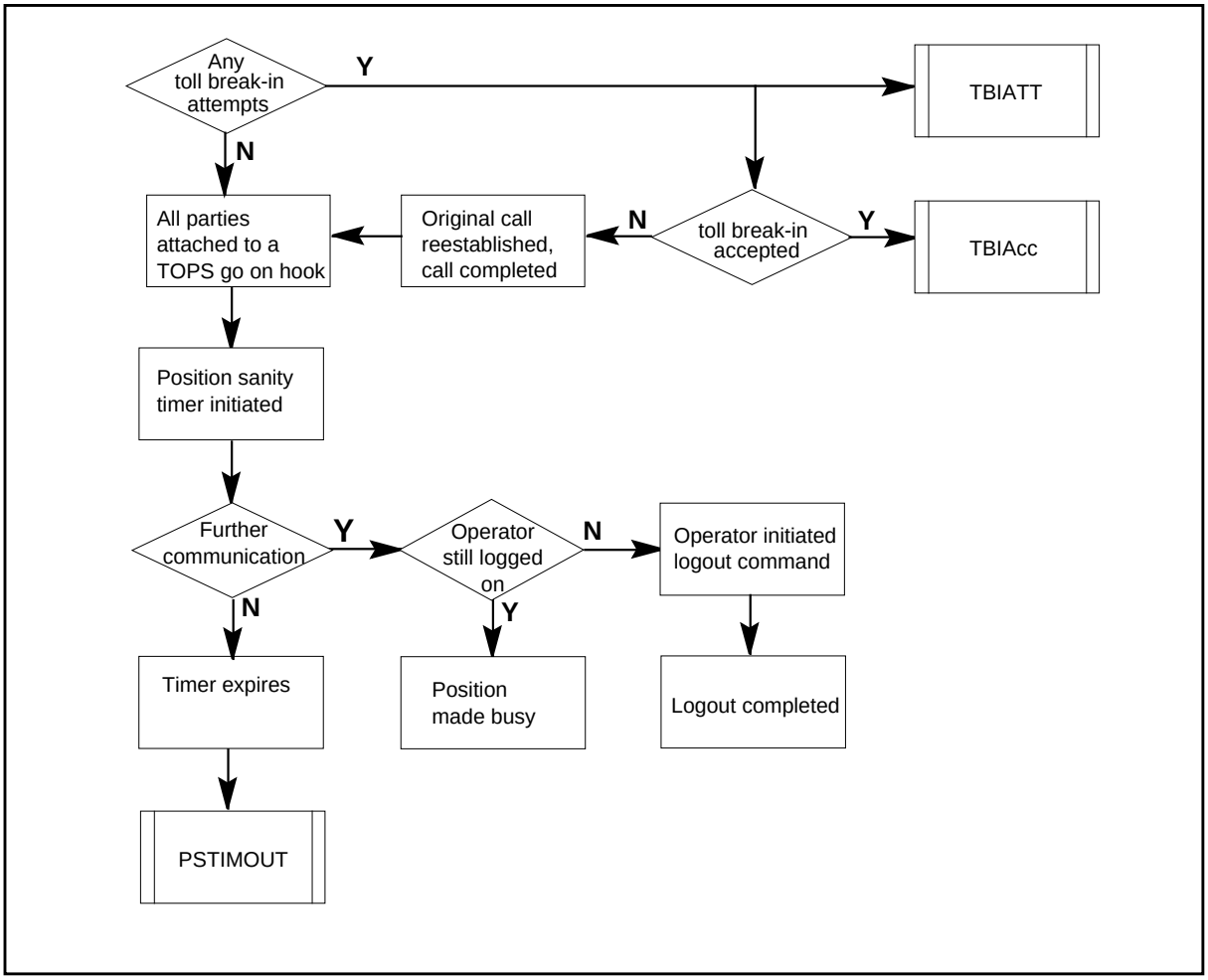


OM group TOPSMISC (continued)

OM group TOPSMISC registers (continued)

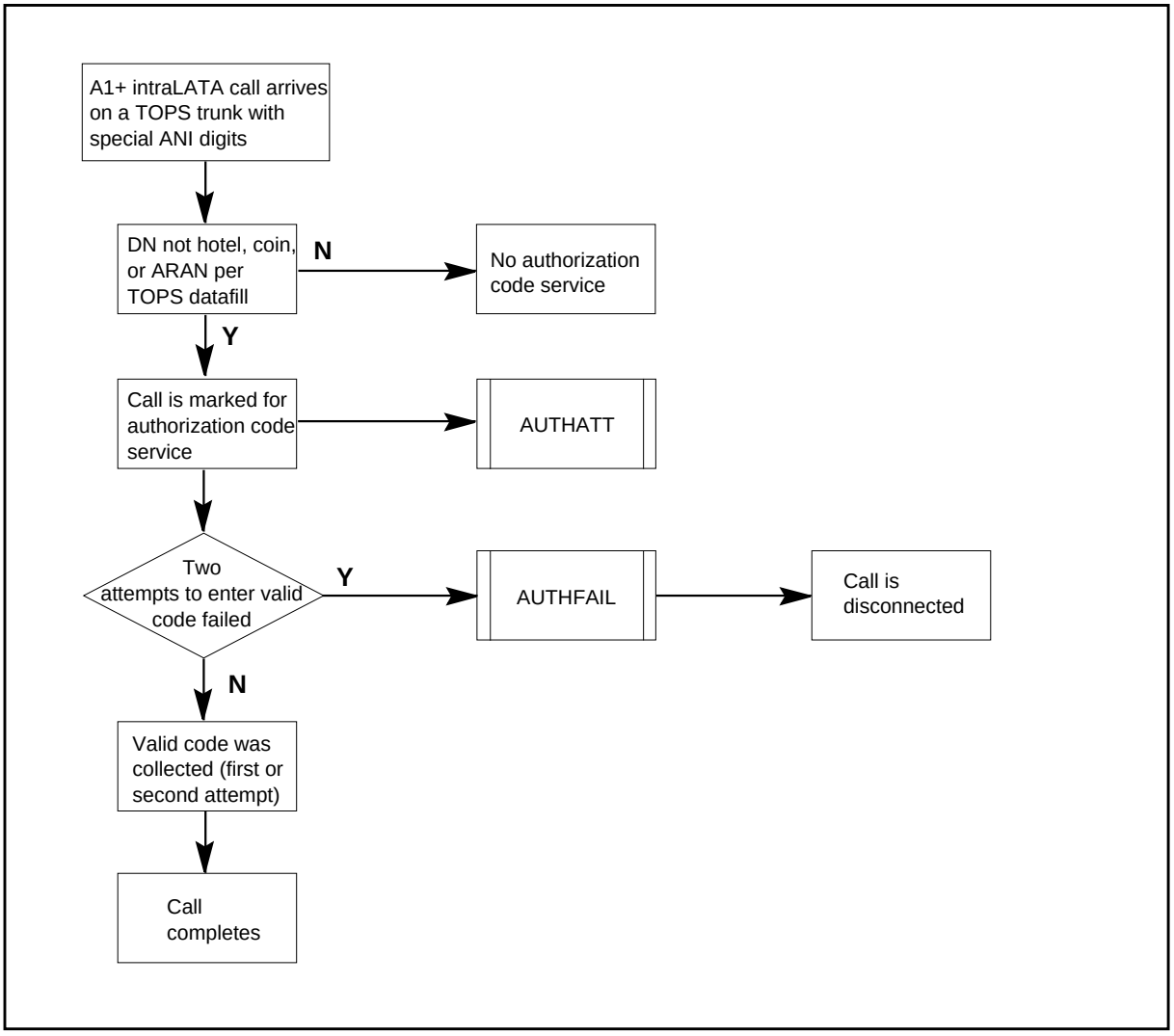


OM group TOPSMISC registers (continued)



OM group TOPSMISC (continued)

OM group TOPSMISC registers (end)



Register AUTHATT

Authorization Code Attempts

AUTHATT counts the number of attempted TOPS authorization code calls.

Register AUTHATT release history

AUTHATT was created in TOPS05.

Associated registers

AUTHFAIL counts the number of attempted TOPS authorization code calls (register AUTHATT) that fail to get a valid code and are disconnected.

Associated logs

None

Extension registers

None

Register AUTHFAIL

Authorization Code Failures

AUTHFAIL counts the number of attempted TOPS authorization code calls (register AUTHATT) that fail to get a valid code and are disconnected.

Register AUTHFAIL release history

AUTHFAIL was created in TOPS05.

Associated registers

AUTHATT counts the number of attempted TOPS authorization code calls.

Associated logs

None

Extension registers

None

Register AUTORATE

Automatic rating

AUTORATE is scored when a call is automatically rated by TOPS.

The system automatically calculates the rate step according to the rate schedule in effect when the call was made.

Register AUTORATE release history

AUTORATE was created prior to BCS20.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TOPSMISC (continued)

Register CLGBLKD

Calling number blocked

CLGBLKD is scored when the Caller ID blocking status is set to true and an initial address message (IAM) is sent to the terminating end office through an integrated services digital network user part (ISUP) trunk.

In an operator centralization (OC) environment, this register is scored in the remote site.

Register CLGBLKD release history

CLBLKD was created in BCS35.

Associated registers

None

Associated logs

None

Extension registers

None

Register MANRATE

Manual rating

MANRATE is scored when a call is manually rated by a TOPS operator.

The operator calculates the rate step according to the rate schedule in effect when the call was made and enters it into the system.

Register MANRATE release history

MANRATE was created prior to BCS20.

Associated registers

None

Associated logs

None

Extension registers

None

Register NONCINW

Noncarrier inward

NONCINW counts noncarrier inward service-type calls received at a TOPS position.

Inward service type calls are requests for services such as verification and directory assistance. Noncarrier inward service type calls originate from a telephone company.

Register NONCINW release history

NONCINW was created in BCS25.

Associated registers

TOTLINW counts inward service type calls.

Associated logs

None

Extension registers

None

Register POSACS

Position access

POSACS is scored when the TOPS operator originates a delay call or third-party verification call by using the access key.

Register POSACS release history

POSACS was created in BCS23.

Associated registers

None

Associated logs

None

Extension registers

None

Register PSTIMOUT

Position sanity timeout

OM group TOPSMISC (continued)

PSTIMOUT is scored when the position sanity timer expires. The timer is initiated when all parties attached to an operator position go on hook and no further keystrokes are received from the operator. The value of the position sanity timer is datafilled in table TOPSPARM and can be disabled.

If the timer expires before any further communication is received, the call is taken down. If the operator is still logged in, the position is made busy and if the operator has initiated the logout command, logout is completed.

Register PSTIMOUT release history

PSTIMOUT was created in BCS33.

Associated registers

None

Associated logs

TOPS118 will be generated.

Extension registers

None

Register RONITBL

remote operator number identification (RONI) trouble

RONITBL is scored when a trouble report is produced on a RONI call.

Register RONITBL release history

RONITBL was created prior to BCS20.

Associated registers

None

Associated logs

SNAC100, SNAC101, SNAC102, and SNAC103 are generated when an operator at a TOPS position or at an overseas operator center keys in a trouble code.

Extension registers

None

Register TBISUCC

Accepted TBI attempts.

TBISUCC measures the number of accepted operator initiated toll break-in attempts. This count corresponds to the number of calls that the TOPS office received an R2 answer signal after performing a toll break-in.

Register TBISUCC release history

TBISUCC was created in release TOPS04.

Associated registers

None

Associated logs

None

Extension registers

None

Register TBIATT

TBI attempts made.

TBIATT measures the number of operator initiated toll break-in attempts. This count corresponds to the number of trunk offer start functions performed.

Register TBLREPRT release history

TBIATT was created in release TOPS04.

Associated registers

None

Associated logs

None

Extension registers

None

Register TBLREPRT

Trouble report

TBLREPRT is scored when the TOPS operator presses the key pulse trouble (KP TRBL) key.

Register TBLREPRT release history

TBLREPRT was created prior to BCS20.

OM group TOPSMISC (continued)

Associated registers

None

Associated logs

SNAC100, SNAC101, SNAC102, and SNAC103 are generated when an operator at a TOPS position or at an overseas operator center keys in a trouble code.

Extension registers

None

Register TDUNLOST

TOPS detection coin lost

TDUNLOST is scored when a coin signal message response is not received from a peripheral before the end of a time-out period.

When TDUNLOST is scored, it indicates faulty coin detection circuitry.

Register TDUNLOST release history

TDUNLOST was created in BCS20.

Associated registers

None

Associated logs

TRK123 is generated when the peripheral processor sends the wrong message to the central control.

Extension registers

None

Register TOTLINW

Total inward

TOTLINW counts inward service type calls received at a TOPS position.

Inward service-type calls are requests for services such as verification and directory assistance.

Register TOTLINW release history

TOTLINW was created in BCS25.

Associated registers

NONCINW counts inward service-type calls originating from within a telephone operating company.

Associated logs

None

Extension registers

None

OM group TOPSMTCE

OM description

Traffic operator position system maintenance

TOPSMTCE provides maintenance information on traffic operator position system (TOPS) equipment.

TOPSMTCE has four registers that count:

- system diagnostics run on TOPS positions
- failed system diagnostics run on TOPS positions
- failed system diagnostics run on TOPS trunk circuits
- failed system diagnostics run on the digital modems at TOPS positions

The data supplied by TOPSMTCE is used monitor the performance of TOPS equipment.

Release history

OM group TOPSMTCE was introduced prior to BCS20.

Registers

OM group TOPSMTCE registers display on the MAP terminal as follows:

```
POSD        POSDF         POSTRKDF       POSDMDF
```

Group structure

OM group TOPSMTCE provides one tuple for each TOPS office.

Key field:
None

Info field:
None

Associated OM groups

None

OM group TOPSMTCE (continued)

Associated functional groups

The following functional groups are associated with OM group TOPSMTCE:

- DMS-100/200 Local/Toll
- DMS-200 Toll
- DMS-200 TOPS
- DMS-200 ITOPS

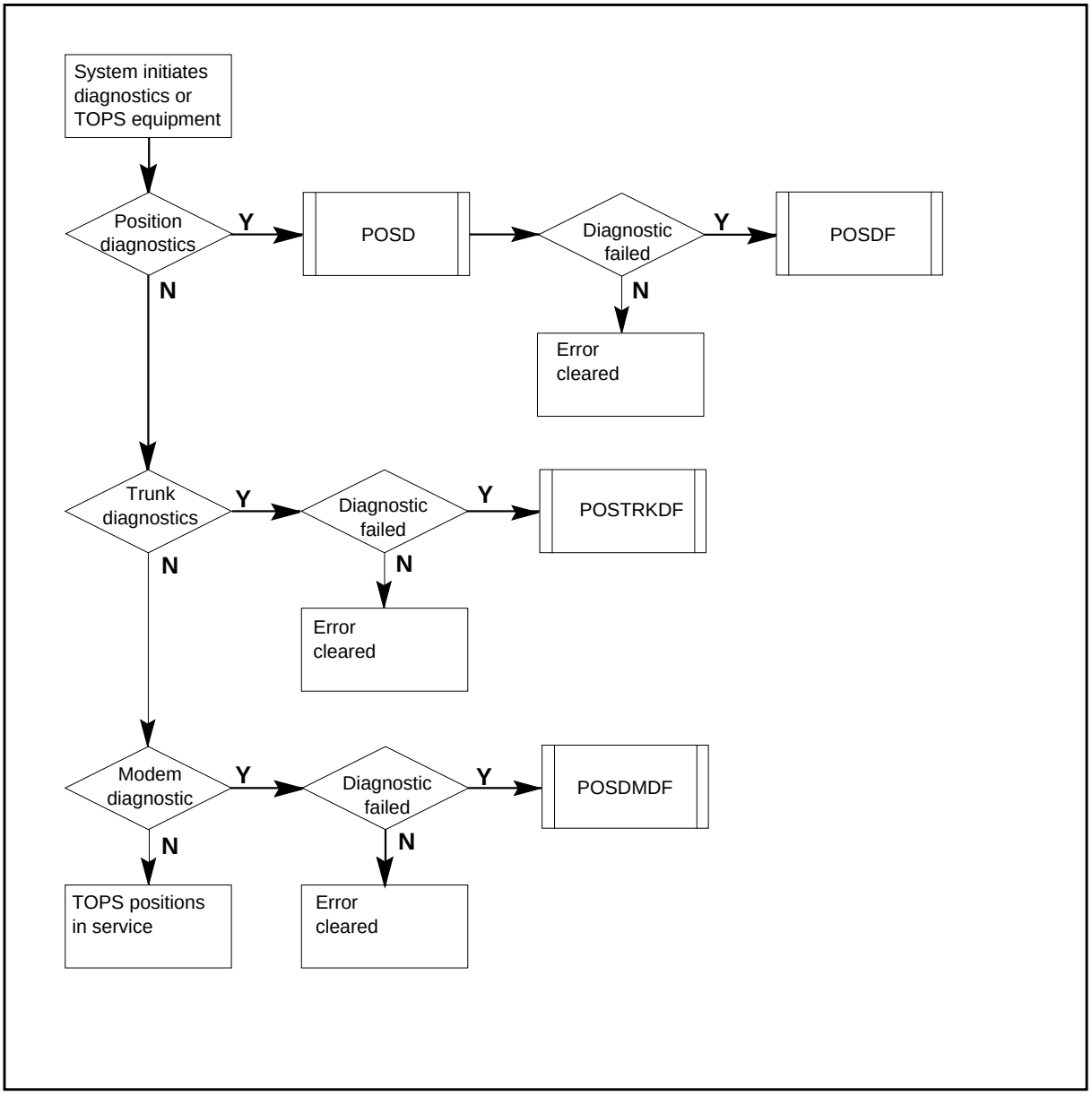
Associated functionality codes

The functionality codes associated with OM group TOPSMTCE are shown in the following table.

Functionality	Code
TOPS Call Processing Features	NTX030CC

OM group TOPSMTCE (continued)

OM group TOPSMTCE registers



Register POSD

Position diagnostic

POSD is incremented when a system-initiated diagnostic is run on a traffic operator position system (TOPS) position.

Register POSD release history

POSD was introduced prior to BCS20.

Associated registers

None

Associated logs

TOPS102 is generated when a message arrives that is not expected.

TOPS103 is generated when an unexpected message from a TOPS device causes the TOPS device to be made system busy.

Extension registers

None

Register POSDF

Position diagnostic failure

POSDF is incremented when a traffic operator position system (TOPS) position fails a system-initiated diagnostic.

Register POSDF release history

POSDF was introduced prior to BCS20.

Associated registers

None

Associated logs

TOPS100 is generated when a TOPS trunk is made system busy due to trouble encountered during a TOPS call attempt.

TOPS101 is generated when a data transmission error causes a modem to be made system busy.

TOPS105 is generated when trouble is encountered during a procedure.

TOPS106 is generated when data link trouble is encountered during a procedure.

Extension registers

None

OM group TOPSMTCE (end)

Register POSDMDF

Position digital modem diagnostic failure

POSDMDF is incremented when the digital modem associated with a traffic operator position system (TOPS) position fails a system-initiated diagnostic.

Register POSDMDF release history

POSDMDF was introduced prior to BCS20.

Associated registers

None

Associated logs

TOPS100 is generated when a TOPS trunk is made system busy due to trouble encountered during a TOPS call attempt.

Extension registers

None

Register POSTRKDF

Position trunk diagnostic failure

POSTRKDF is incremented when a trunk circuit that is associated with a traffic operator position system (TOPS) position fails a system-initiated diagnostic.

Register POSTRKDF release history

POSTRKDF was introduced prior to BCS20.

Associated registers

None

Associated logs

TOPS106 is generated when data link trouble is encountered during a procedure.

Extension registers

None

OM group TOPSOC

OM description

Traffic operator position system operator centralization

TOPSOC provides information on calls that are routed from a remote toll switch to a traffic operator position system (TOPS) operator at an operator centralization (OC) host switch.

The OC feature enables a DMS-200 or DMS-100/200 TOPS switch to handle the operator traffic for several remote toll switches.

The Mechanized Calling Card Service (MCCS) feature allows callers to apply billing charges to personal calling cards.

TOPSOC has three registers that count the following:

- calls routed to an OC host switch from remote toll switches
- MCCS validation queries routed to an OC host switch from remote toll switches
- calls from remote switches that are abandoned

The data supplied by TOPSOC is used to monitor OC traffic and to assess the demand for TOPS OC positions.

Release history

OM group TOPSOC was introduced in BCS21.

BCS32

OM group indexed by every remote switch that is datafilled in table OCGRP.

Registers

OM group TOPSOC registers display on the MAP terminal as follows:

```
OCINI          OCMCCS          OCQABN
```

Group structure

OM group TOPSOC provides one tuple for each OC host office.

Key field:

None

OM group TOPSOC (continued)

Info field:
TOPS_OCINDEX_REGISTERINFO

Associated OM groups

TOPSOCPS provides information about calls received at an OC host office or at a TOPS standalone office.

Associated functional groups

The following functional groups are associated with OM group TOPSOC:

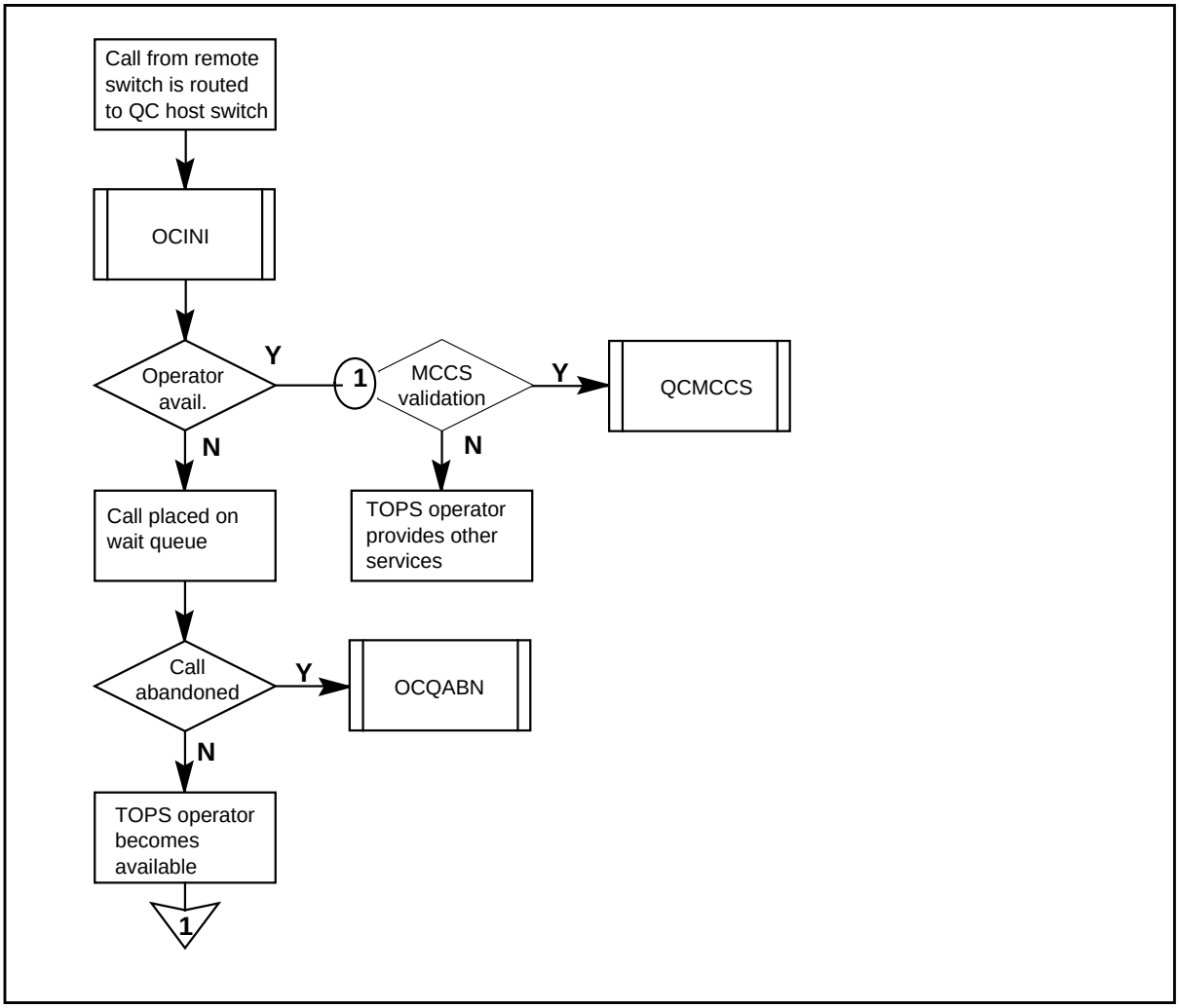
- DMS-100/200 Local/Toll
- DMS-200 Toll
- DMS-200 TOPS
- DMS-200 ITOPS

Associated functionality codes

The functionality codes associated with OM group TOPSOC are shown in the following table.

Functionality	Code
TOPS Call Processing Features	NTX030CC

OM group TOPSOC registers



Register OCINI

Operator centralization (OC) initiation

OCINI is incremented when a call requiring a TOPS operator is routed to an OC host switch from a remote toll switch.

Register OCINI release history

OCINI was introduced in BCS21.

Associated registers

None

OM group TOPSOC (end)

Associated logs

None

Extension registers

None

Register OCMCCS

Operator centralization (OC) mechanized call card service (MCCS)

OCMCCS is incremented when a TOPS operator at an OC host switch performs an MCCS validation request that originated at a remote toll switch.

Register OCMCCS release history

OCMCCS was introduced in BCS21.

Associated registers

None

Associated logs

None

Extension registers

None

Register OCQABN

Operator centralization (OC) query abandons

OCQABN is incremented when a call originating at a remote toll switch and queued at an OC host switch is abandoned before being served by a TOPS operator.

Register OCQABN release history

OCQABN was introduced in BCS21.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TOPSOLNE

OM description

Traffic Operator Position System (TOPS) Originating Line Number Screening (OLNS) Errors (TOPSOLNE)

OM group TOPSOLNE contains registers that peg counts for each OLNS error, including signaling connection control part (SCCP) routing errors (for example, subsystem failure or no translation for a specific address) or transaction capability application part (TCAP) level errors (for example, a missing customer record).

Note: The TCAP and the SCCP are services associated with Common Channel Signaling 7 (CCS7). Additional information about TCAP and SCCP services can be found in the “Trunk peripheral capacity" chapter in the *Capacity Engineering Manual,* 297-1001-170.

Release history

OM group TOPSOLNE was introduced in NA006.

NA006

Functional group Alternate Billing Services (ABS00001) introduces OM group TOPSOLNE through the TOPS OLNS Interface (ABS00012) functionality.

Registers

The following OM group TOPSOLNE registers display on the MAP terminal as follows:

OM group TOPSOLNE (continued)

```
OMSHOW TOPSOLNE ACTIVE

TOPSOLNE

CLASS:    ACTIVE
START:1996/11/16 14:30:00 WED;STOP:1996/11/16 14:53:13 WED;
SLOWSAMPLES:         5 ; FASTSAMPLES:       49  ;

       OLNDATER   OLNDATUN   OLNMISRT   OLNMISSR
       OLNMSCER   OLNMSSGR   OLNNETCG   OLNNETFL
       OLNNOPGR   OLNNOXLA   OLNNOXLS   OLNPRTPR
       OLNSCRND   OLNSUBCG   OLNSUBFL   OLNUNEQP
       OLNUNEXC   OLNUNEXD   OLNUNNET   OLNVCTGR

 0             0          0          0          0
               0          0          0          0
               0          0          0          0
               0          0          0          0
               0          0          0          0
```

Group structure

OM group TOPSOLNE provides one tuple for each office.

Key field:
None

Info field:
None

Associated OM groups

TOPSOLNS is associated with OM group TOPSOLNE in that both OM groups are associated with OLNS processing.

Associated functional groups

Functional group Alternate Billing Services (ABS00001) is associated with OM group TOPSOLNE.

Associated functionality codes

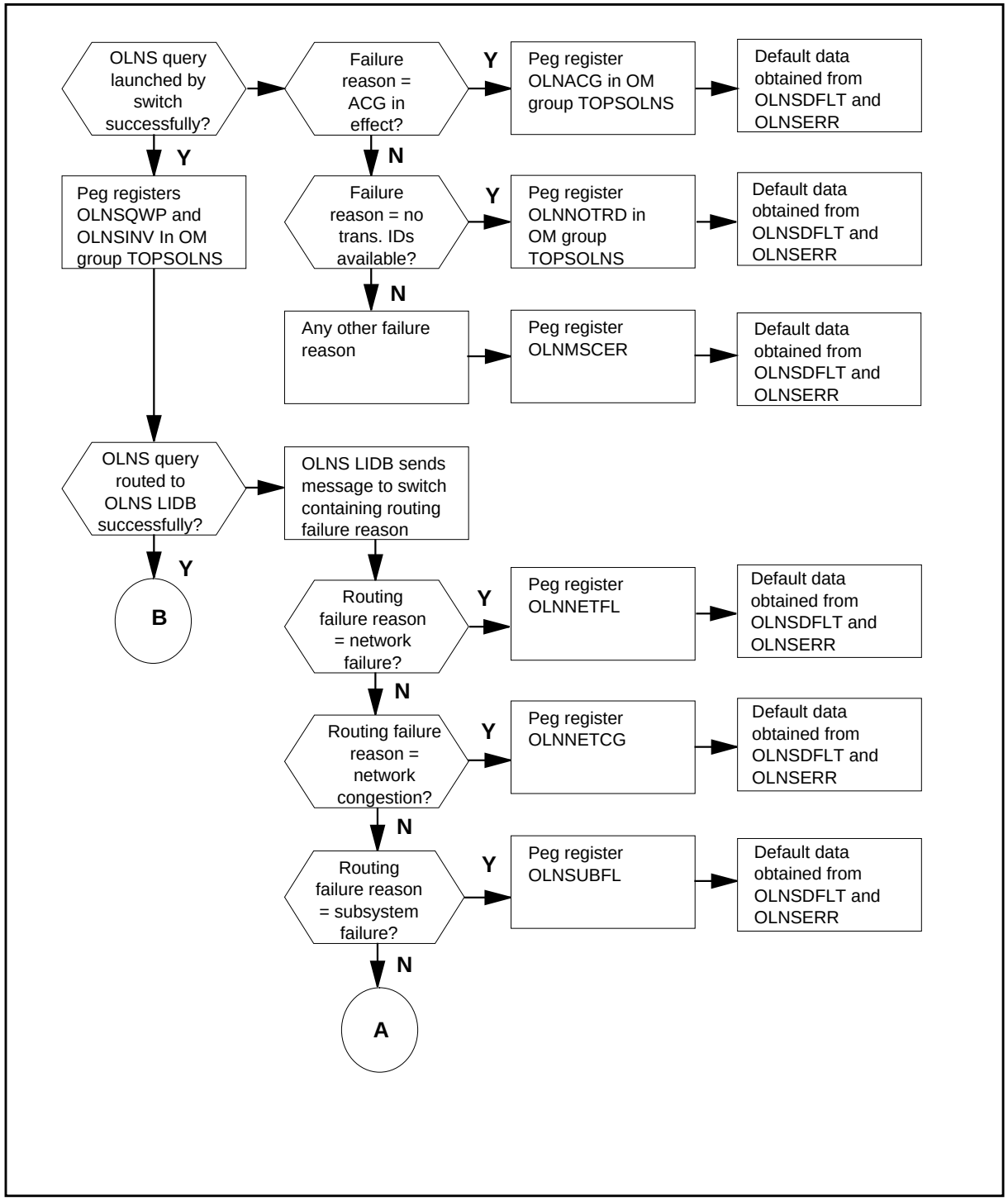
The functionality codes associated with OM group TOPSOLNE are shown in the following table.

Functionality	Code
TOPS OLNS Interface	ABS00012

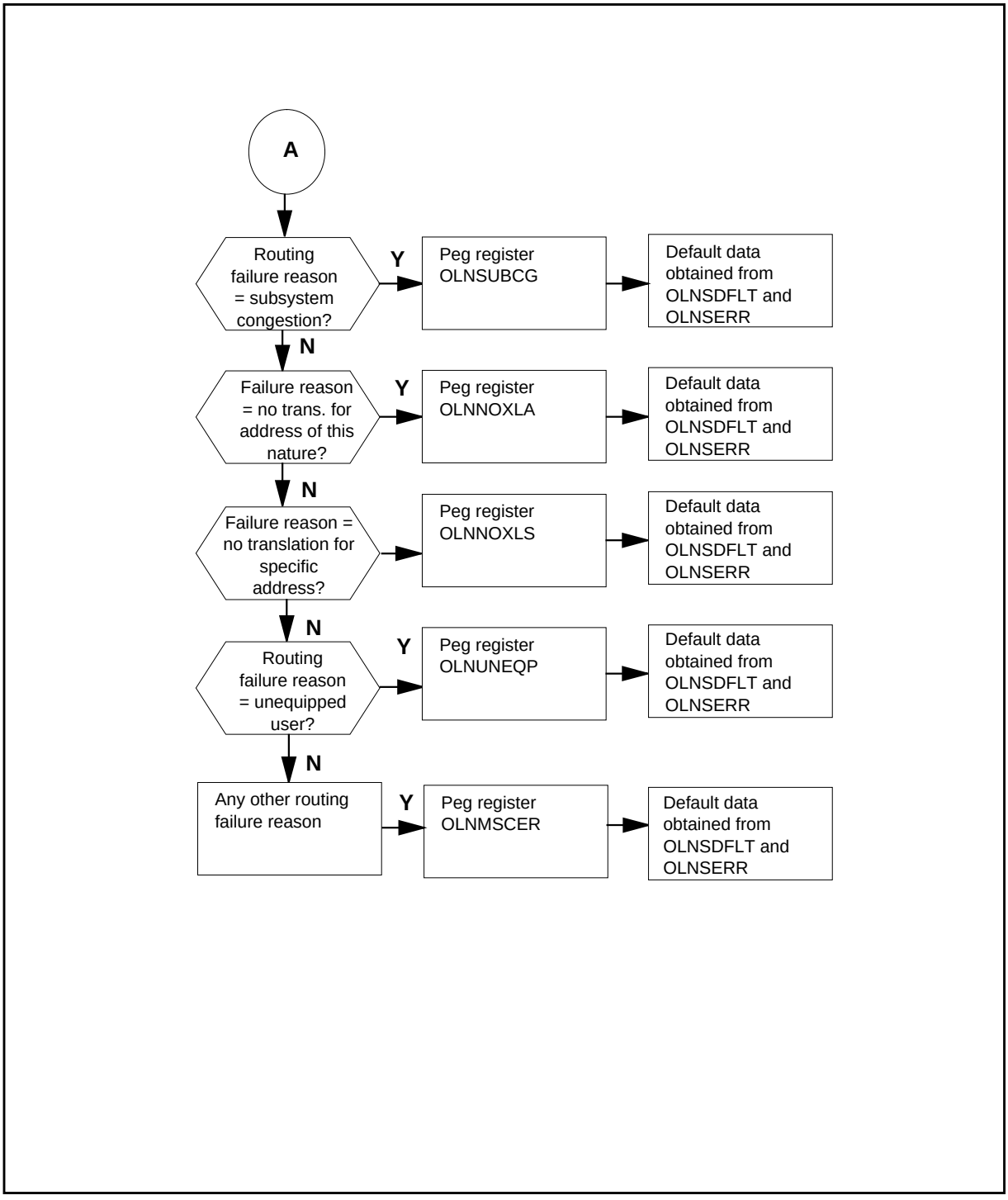
This flowchart shows pegging conditions for OM groups TOPSOLNE and TOPSOLNS. TOPSOLNS registers are specifically identified in the flowchart; all other registers belong to OM group TOPSOLNE.

OM group TOPSOLNE (continued)

OM group TOPSOLNE registers

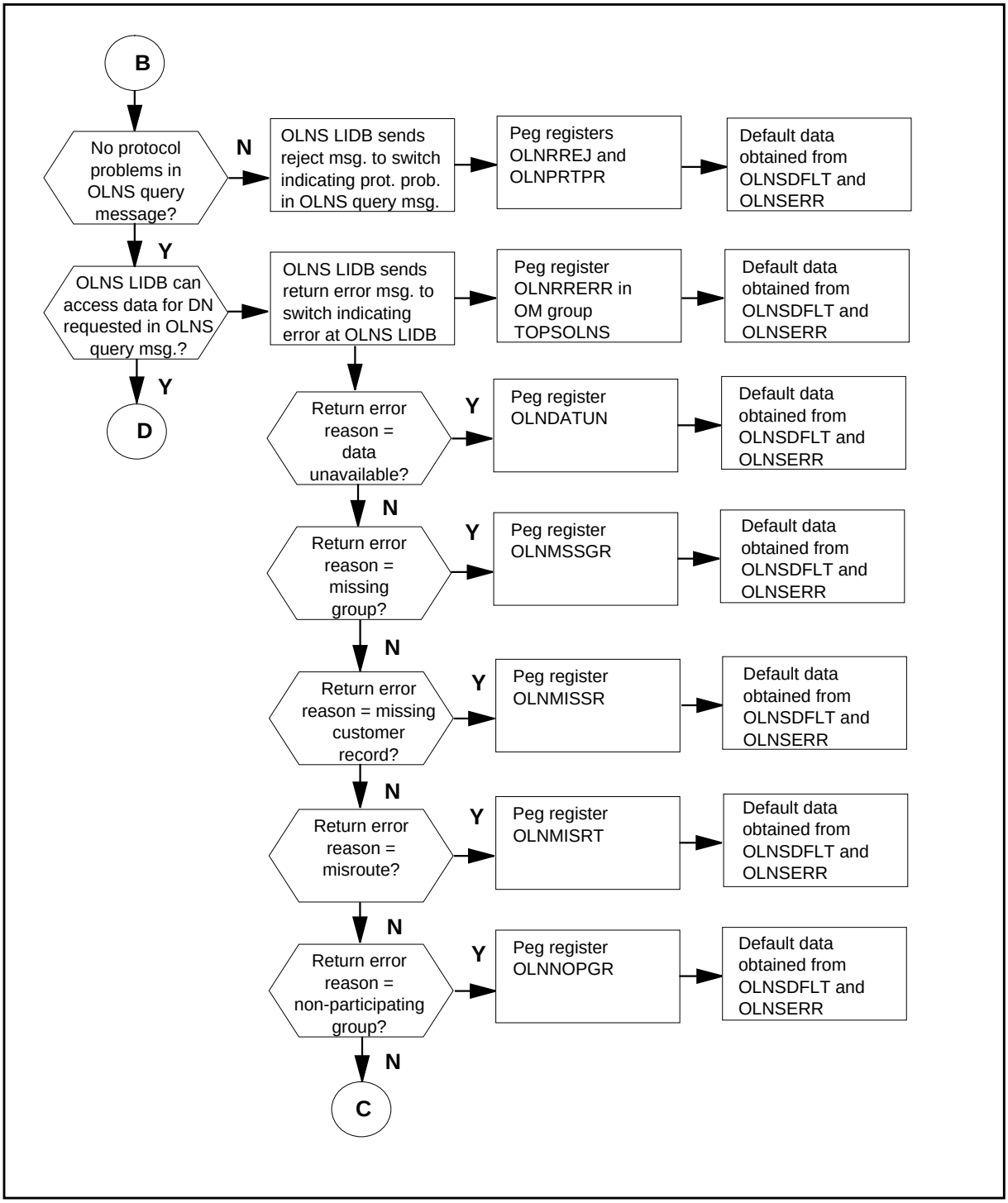


OM group TOPSOLNE registers (continued)

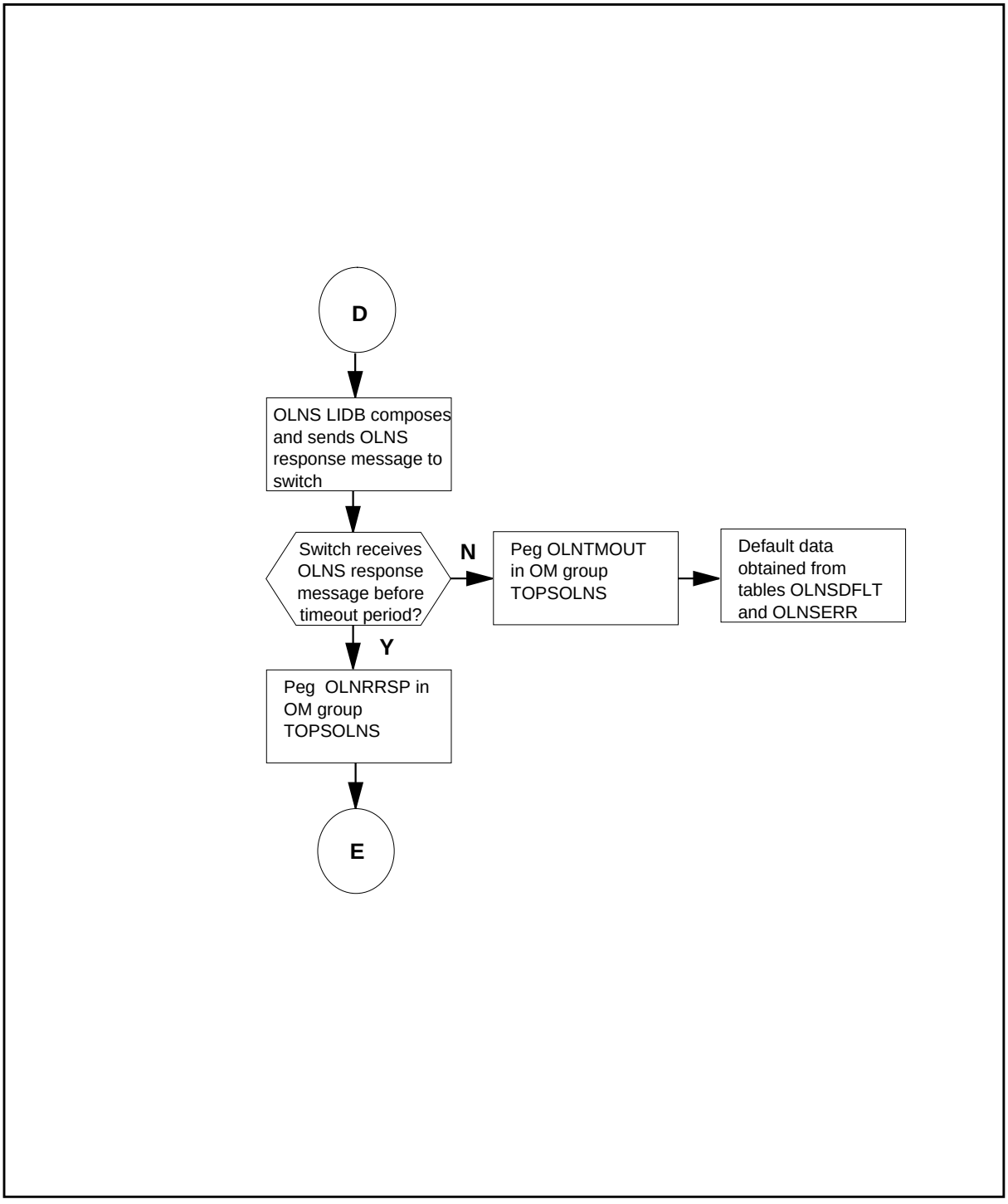


OM group TOPSOLNE (continued)

OM group TOPSOLNE registers (continued)

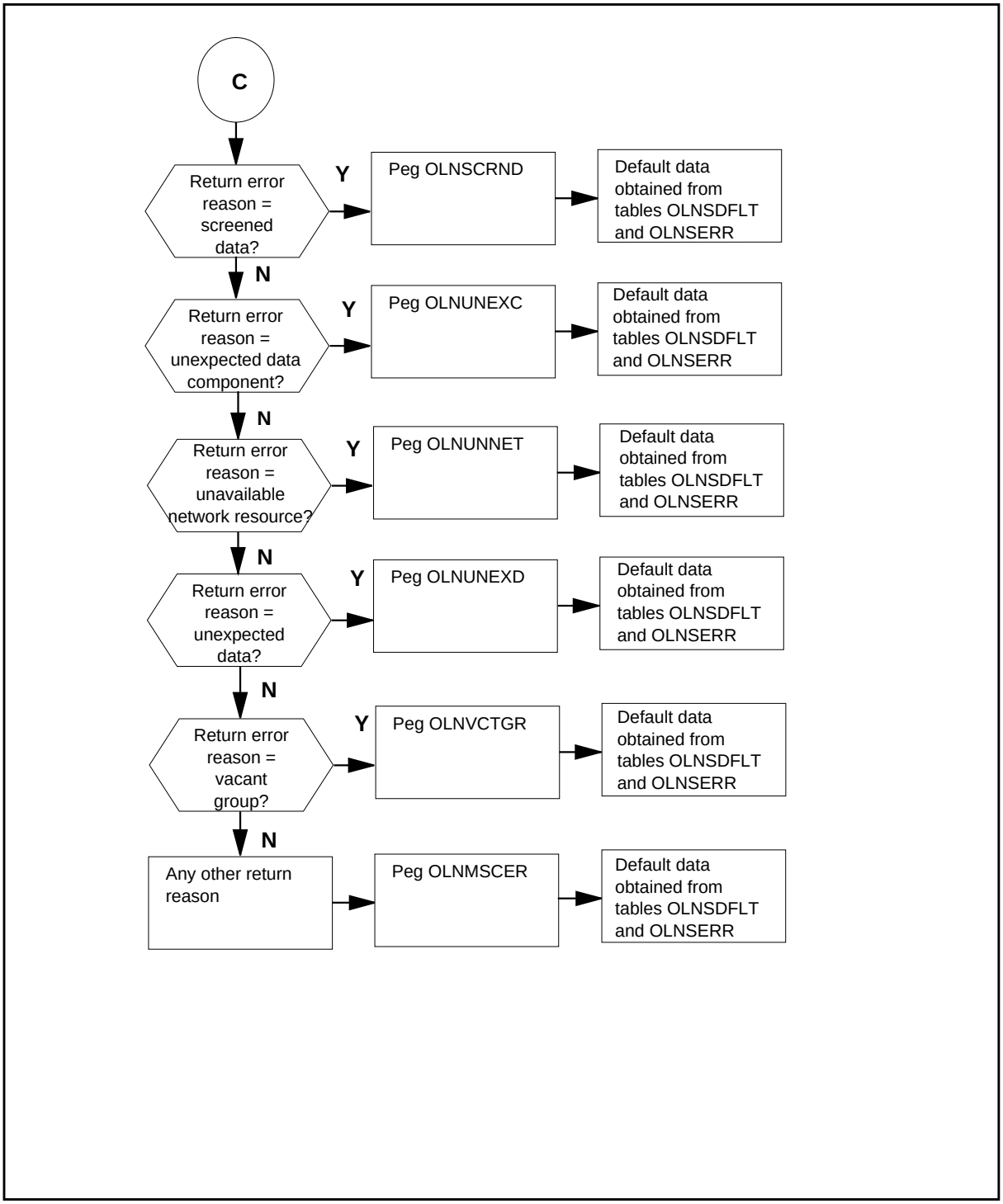


OM group TOPSOLNE registers (continued)

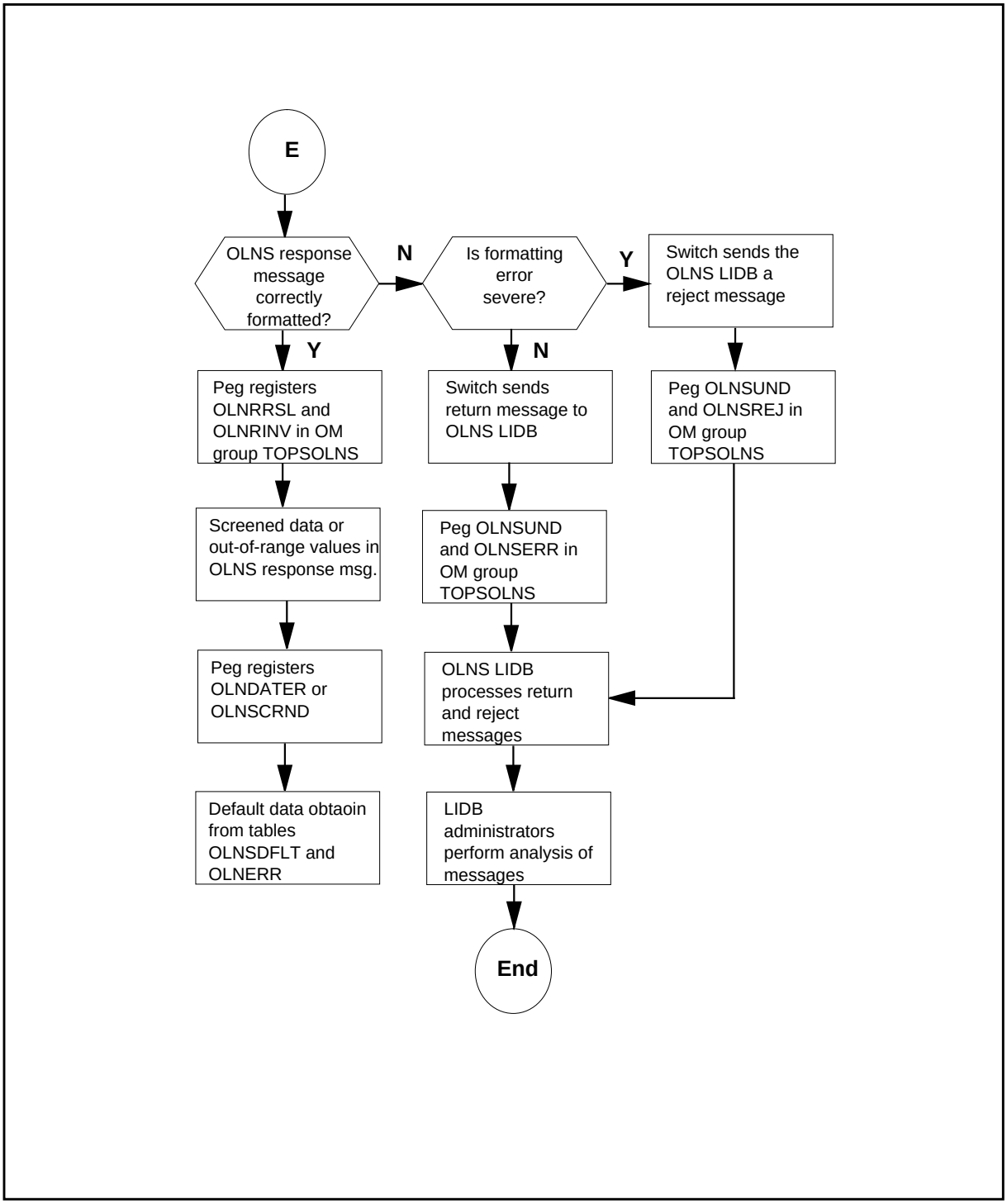


OM group TOPSOLNE (continued)

OM group TOPSOLNE registers (continued)



OM group TOPSOLNE registers (continued)



OM group TOPSOLNE (continued)

Register OLNDATER

Register Originating Line Number Screening Data Error (OLNDATER)

Register OLNDATER is incremented when the OLNS LIDB sends an out-of-range parameter or parameter value in the OLNS response message to the DMS switch. This register is pegged only once for each OLNS response message, even if more than one out-of-range value is sent.

Register OLNDATER release history

Register OLNDATER was introduced in NA006.

Associated registers

None

Associated logs

Log TOPS127 is associated with register OLNDATER.

Extension registers

None

Register OLNDATUN

Register Originating Line Number Screening Data Unavailable (OLNDATUN)

Register OLNDATUN is incremented when the data is unavailable at the OLNS LIDB.

Register OLNDATUN release history

Register OLNDATUN was introduced in NA006.

Associated registers

None

Associated logs

The following logs are associated with register OLNDATUN:

- TCAP100
- TOPS127

Extension registers

None

Register OLNMISRT

Register Originating Line Number Screening Misroute (OLNMISRT)

Register OLNMISRT is incremented when the data is not correctly routed at the OLNS LIDB.

Register OLNMISRT release history

Register OLNMISRT was introduced in NA006.

Associated registers

None

Associated logs

The following logs are associated with register OLNMISRT:

- TCAP100
- TOPS127

Extension registers

None

Register OLNMISSR

Register Originating Line Number Screening Missing customer Record (OLNMISSR)

Register OLNMISSR is incremented when there is a missing customer record at the OLNS LIDB.

Register OLNMISSR release history

Register OLNMISSR was introduced in NA006.

Associated registers

None

Associated logs

The following logs are associated with register OLNMISSR:

- TCAP100
- TOPS127

Extension registers

None

OM group TOPSOLNE (continued)

Register OLNMSCER

Register Originating Line Number Screening Miscellaneous Error (OLNMSCER)

Register OLNMSCER is incremented when there is a miscellaneous error in the OLNS query or response. Errors in this category are those that are not one of the pre-defined errors.

Register OLNMSCER release history

Register OLNMSCER was introduced in NA006.

Associated registers

None

Associated logs

Log TOPS127 is associated with register OLNMSCER.

Extension registers

None

Register OLNMSSGR

Register Originating Line Number Screening Missing Group (OLNMSSGR)

Register OLNMSSGR is incremented when there is a missing group at the OLNS LIDB.

Register OLNMSSGR release history

Register OLNMSSGR was introduced in NA006.

Associated registers

None

Associated logs

The following logs are associated with register OLNMSSGR:

- TCAP100
- TOPS127

Extension registers

None

Register OLNNETCG

Register Originating Line Number Screening Network Congestion (OLNNETCG)

Register OLNNETCG is incremented when there is network congestion at the OLNS LIDB.

Register OLNNETCG release history

Register OLNNETCG was introduced in NA006.

Associated registers

None

Associated logs

Log TCAP101 is associated with register OLNNETCG.

Extension registers

None

Register OLNNETFL

Register Originating Line Number Screening Network Failure (OLNNETFL)

Register OLNNETFL is incremented when there is a network failure.

Register OLNNETFL release history

Register OLNNETFL was introduced in NA006.

Associated registers

None

Associated logs

Log TCAP101 is associated with register OLNNETFL.

Extension registers

None

Register OLNNOPGR

Register Originating Line Number Screening Non-Participating Group (OLNNOPGR)

Register OLNNOPGR is incremented when there is a non-participating group at the OLNS LIDB.

OM group TOPSOLNE (continued)

Register OLNNOPGR release history

Register OLNNOPGR was introduced in NA006.

Associated registers

None

Associated logs

The following logs are associated with register OLNNOPGR:

- TCAP100
- TOPS127

Extension registers

None

Register OLNNOXLA

Register Originating Line Number Screening No Translation for an address of this nature (OLNNOXLA)

Register OLNNOXLA is incremented when there is no translation for an address of this nature.

Register OLNNOXLA release history

Register OLNNOXLA was introduced in NA006.

Associated registers

None

Associated logs

Log TCAP101 is associated with register OLNNOXLA.

Extension registers

None

Register OLNNOXLS

Register Originating Line Number Screening No Translation for this Specific address (OLNNOXLS)

Register OLNNOXLS is incremented when there is no translation for this specific address.

Register OLNNOXLS release history

Register OLNNOXLS was introduced in NA006.

Associated registers

None

Associated logs

Log TCAP101 is associated with register OLNNOXLS.

Extension registers

None

Register OLNPRTPR

Register Originating Line Number Screening Protocol Problem (OLNPRTPR)

Register OLNPRTPR is incremented when the OLNS LIDB returns a reject component to the DMS switch.

Register OLNPRTPR release history

Register OLNPRTPR was introduced in NA006.

Associated registers

Register OLNRREJ in OM group TOPSOLNS is associated with OLNPRTPR.

Associated logs

Log TCAP100 is associated with register OLNPRTPR.

Extension registers

None

Register OLNSCRND

Register Originating Line Number Screening Screened Data (OLNSCRND)

Register OLNSCRND is incremented when the OLNS LIDB sends a screened data value in the OLNS response message to the DMS switch. Either the whole OLNS response message can be screened or one or more values in the OLNS response message can be screened. Screening indicates that the OLNS query originator is not privileged to received certain information. This register is only pegged once for each OLNS response message, even if more than one screened data value is sent.

Register OLNSCRND release history

Register OLNSCRND was introduced in NA006.

OM group TOPSOLNE (continued)

Associated registers

None

Associated logs

Log TCAP100 is associated with register OLNSCRND.

Extension registers

None

Register OLNSUBCG

Register Originating Line Number Screening Subsystem Congestion (OLNSUBCG)

Register OLNSUBCG is incremented when there is subsystem congestion.

Register OLNSUBCG release history

Register OLNSUBCG was introduced in NA006.

Associated registers

None

Associated logs

Log TCAP101 is associated with register OLNSUBCG.

Extension registers

None

Register OLNSUBFL

Register Originating Line Number Screening Subsystem Failure (OLNSUBFL)

Register OLNSUBFL is incremented when there is a subsystem failure.

Register OLNSUBFL release history

Register OLNSUBFL was introduced in NA006.

Associated registers

None

Associated logs

Log TCAP101 is associated with register OLNSUBFL.

Extension registers

None

Register OLNUNEQP

Register Originating Line Number Screening Unequipped user (OLNUNEQP)

Register OLNUNEQP is incremented when there is an unequipped user.

Register OLNUNEQP release history

Register OLNUNEQP was introduced in NA006.

Associated registers

None

Associated logs

Log TCAP101 is associated with register OLNUNEQP.

Extension registers

None

Register OLNUNEXC

Register Originating Line Number Screening Unexpected Component sequence (OLNUNEXC)

Register OLNUNEXC is incremented when there is an unexpected component sequence at the OLNS LIDB.

Register OLNUNEXC release history

Register OLNUNEXC was introduced in NA006.

Associated registers

None

Associated logs

Log TCAP100 is associated with register OLNUNEXC.

Extension registers

None

Register OLNUNEXD

Register Originating Line Number Screening Unexpected Data value (OLNUNEXD)

OM group TOPSOLNE (continued)

Register OLNUNEXD is incremented when there is unexpected data at the OLNS LIDB.

Register OLNUNEXD release history

Register OLNUNEXD was introduced in NA006.

Associated registers

None

Associated logs

The following logs are associated with registers OLNUNEXD:

- TCAP100
- TOPS127

Extension registers

None

Register OLNUNNET

Register Originating Line Number Screening Unavailable Network resource (OLNUNNET)

Register OLNUNNET is incremented when there are no available network resources at the OLNS LIDB.

Register OLNUNNET release history

Register OLNUNNET was introduced in NA006.

Associated registers

None

Associated logs

The following logs are associated with register OLNUNNET:

- TCAP100
- TOPS127

Extension registers

None

Register OLNVCTGR

Register Originating Line Number Screening Vacant Group (OLNVCTGR)

Register OLNVCTGR is incremented when there is a vacant group at the OLNS LIDB.

Register OLNVCTGR release history

Register OLNVCTGR was introduced in NA006.

Associated registers

None

Associated logs

The following logs are associated with register OLNVCTGR:

- TCAP100
- TOPS127

Extension registers

None

OM group TOPSOLNS

OM description

Traffic Operator Position System (TOPS) Originating Line Number Screening (OLNS) Information (TOPSOLNS)

OM group TOPSOLNS contains registers that capture OLNS messaging information. This information consists of various Common Channel Signaling 7 (CCS7) package and component types that are sent from and received by the DMS switch.

Additional information that is tracked in the registers is the number of times there are errors due to Automatic Code Gapping (ACG), time out, and no transaction identifiers (ID) available for the transaction ID management resource.

Note: Additional information about CCS7 can be found in chapter 13 of the *Capacity Engineering Manual,* 297-1001-170.

Release history

OM group TOPSOLNS was introduced in NA006.

NA006

Functional group Alternate Billing Services (ABS00001) introduces OM group TOPSOLNS through the TOPS OLNS Interface (ABS00012) functionality.

Registers

The following OM group TOPSOLNS registers display on the MAP terminal as follows:

```
OMSHOW TOPSOLNS ACTIVE

TOPSOLNS

CLASS:    ACTIVE
START:1996/01/16 16:30:00 MON;STOP:1996/11/16 16:38:07 MON;
SLOWSAMPLES:         5 ; FASTSAMPLES:       49  ;

       OLNACG     OLNNOTRD    OLNRINV  OLNRINV2
       OLNRREJ    OLNRRERR    OLNRRSL  OLNRRSL2
       OLNRRSP    OLNRRSP2    OLNSINV  OLNSINV2
       OLNSQWP    OLNSQWP2    OLNSREJ  OLNSRERR
       OLNSUND    OLNTMOUT

 0           0           0          0        0
             0           0          0        0
             0           0          0        0
             0           0          0        0
             0           0
```

Group structure

OM group TOPSOLNS provides one tuple for each office.

Key field:
None

Info field:
None

Associated OM groups

TOPSOLNE is associated with OM group TOPSOLNS in that both OM groups are associated with OLNS processing.

Associated functional groups

Functional group Alternate Billing Services (ABS00001) is associated with OM group TOPSOLNS.

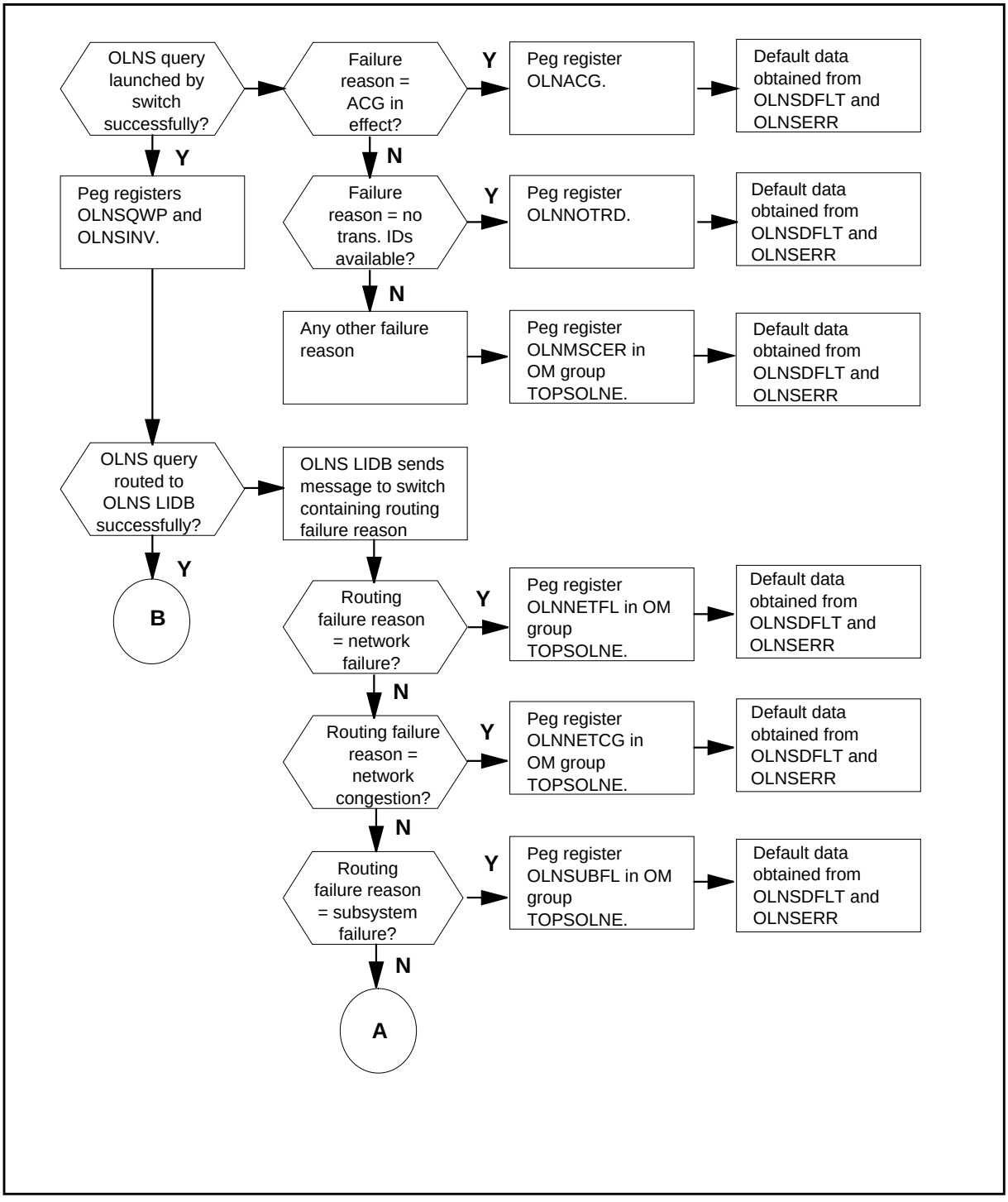
OM group TOPSOLNS (continued)

Associated functionality codes

The functionality codes associated with OM group TOPSOLNS are shown in the following table.

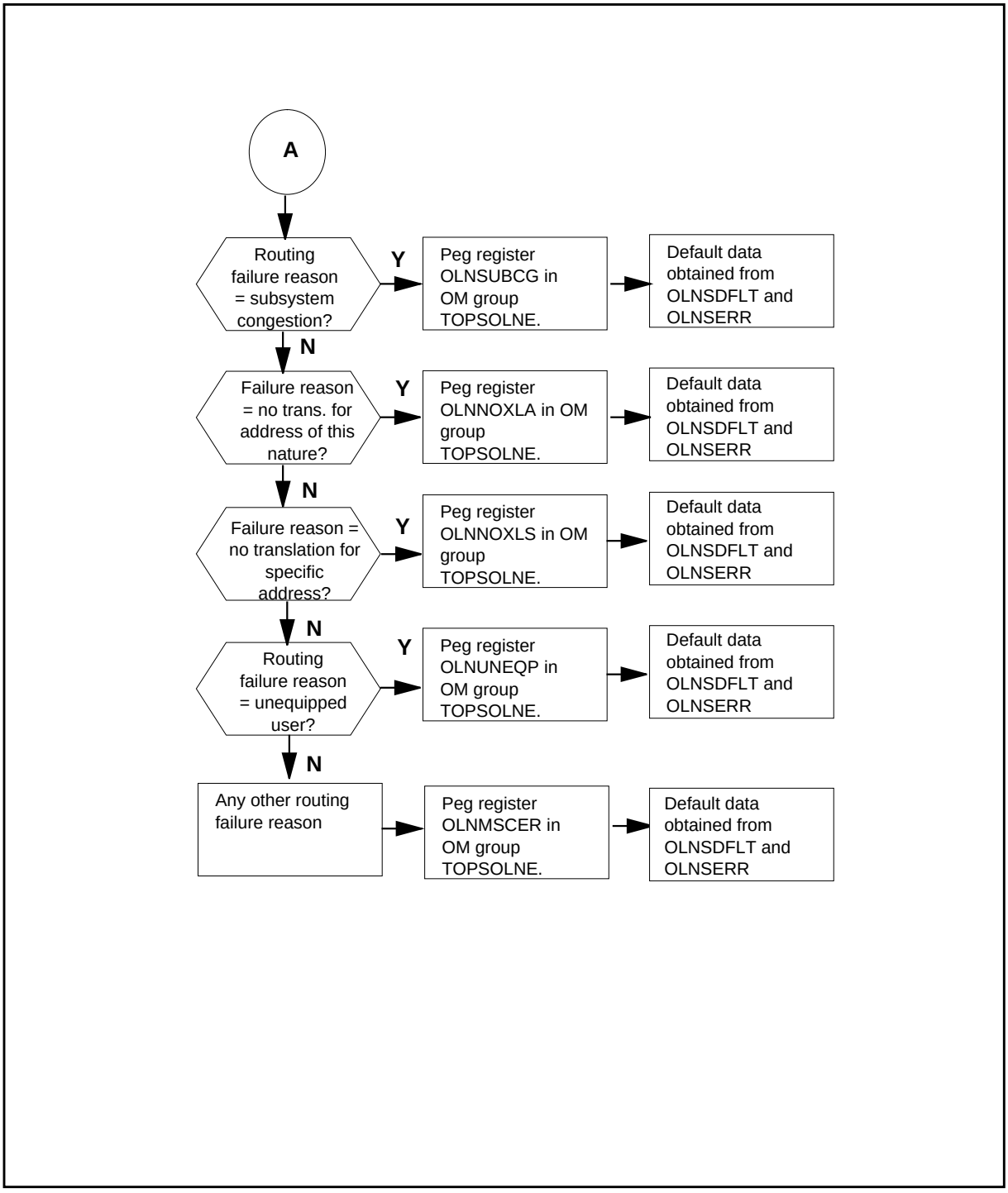
Functionality	Code
TOPS OLNS Interface	ABS00012

OM group TOPSOLNS registers

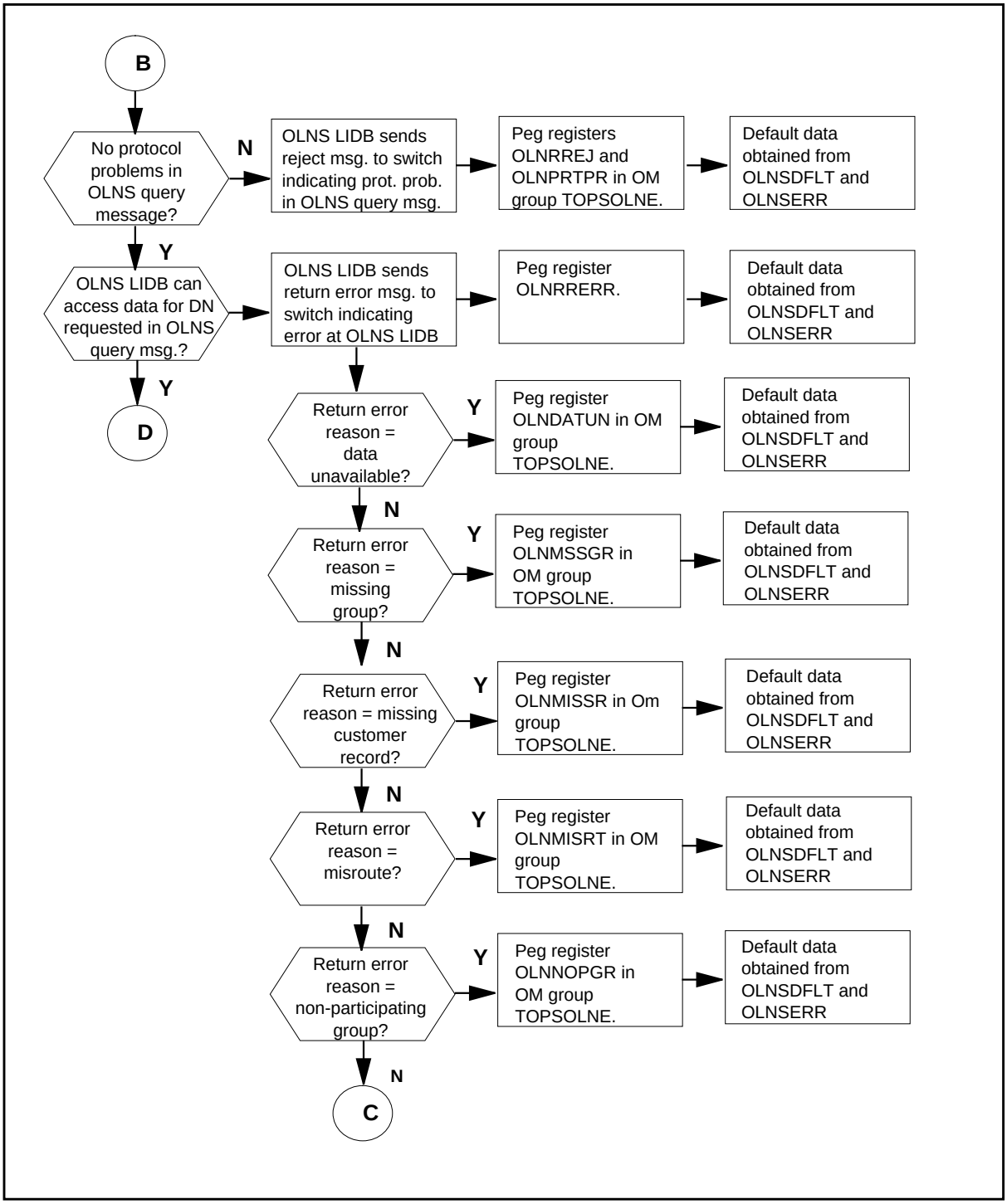


OM group TOPSOLNS (continued)

OM group TOPSOLNS registers (continued)

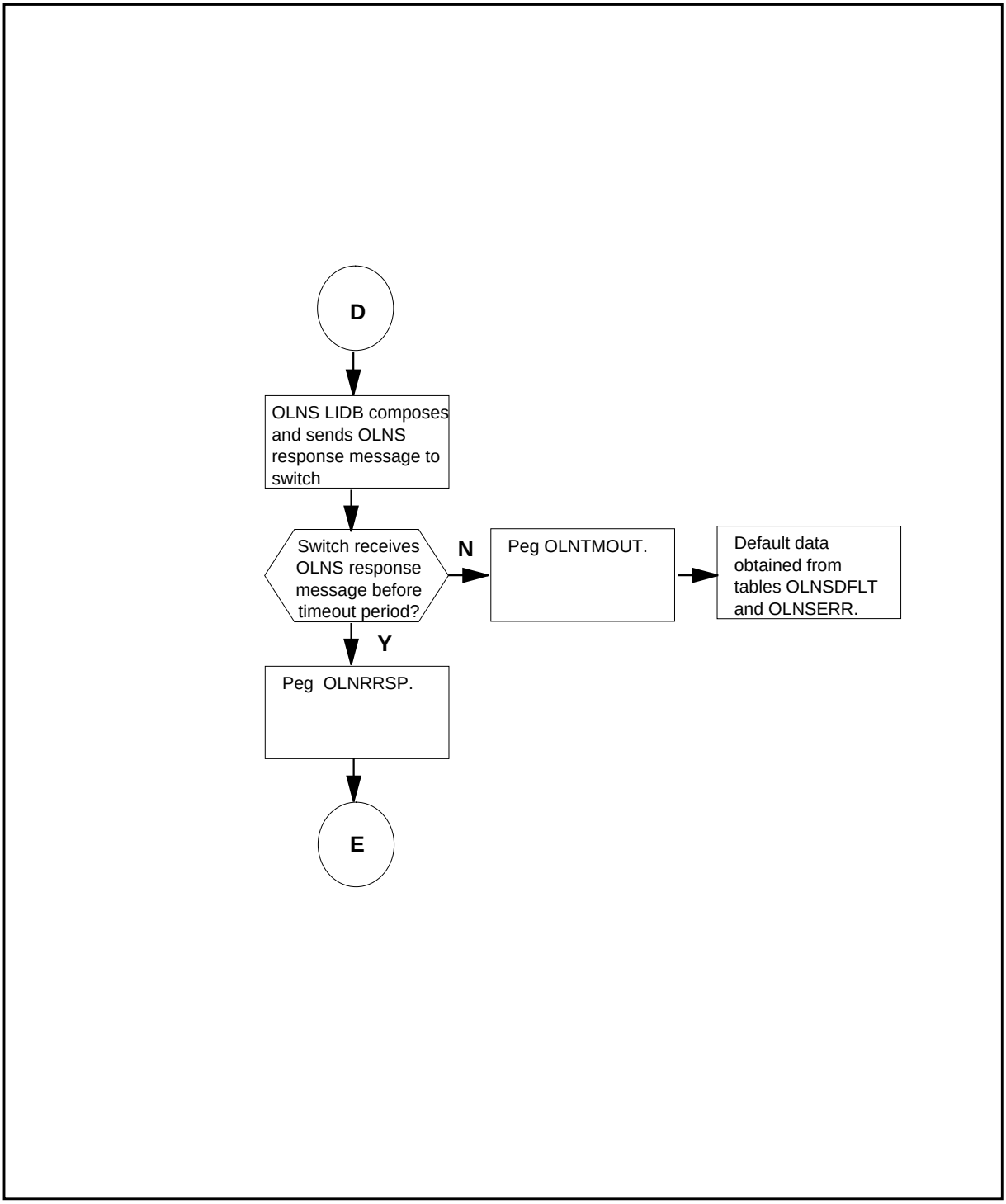


OM group TOPSOLNS registers (continued)

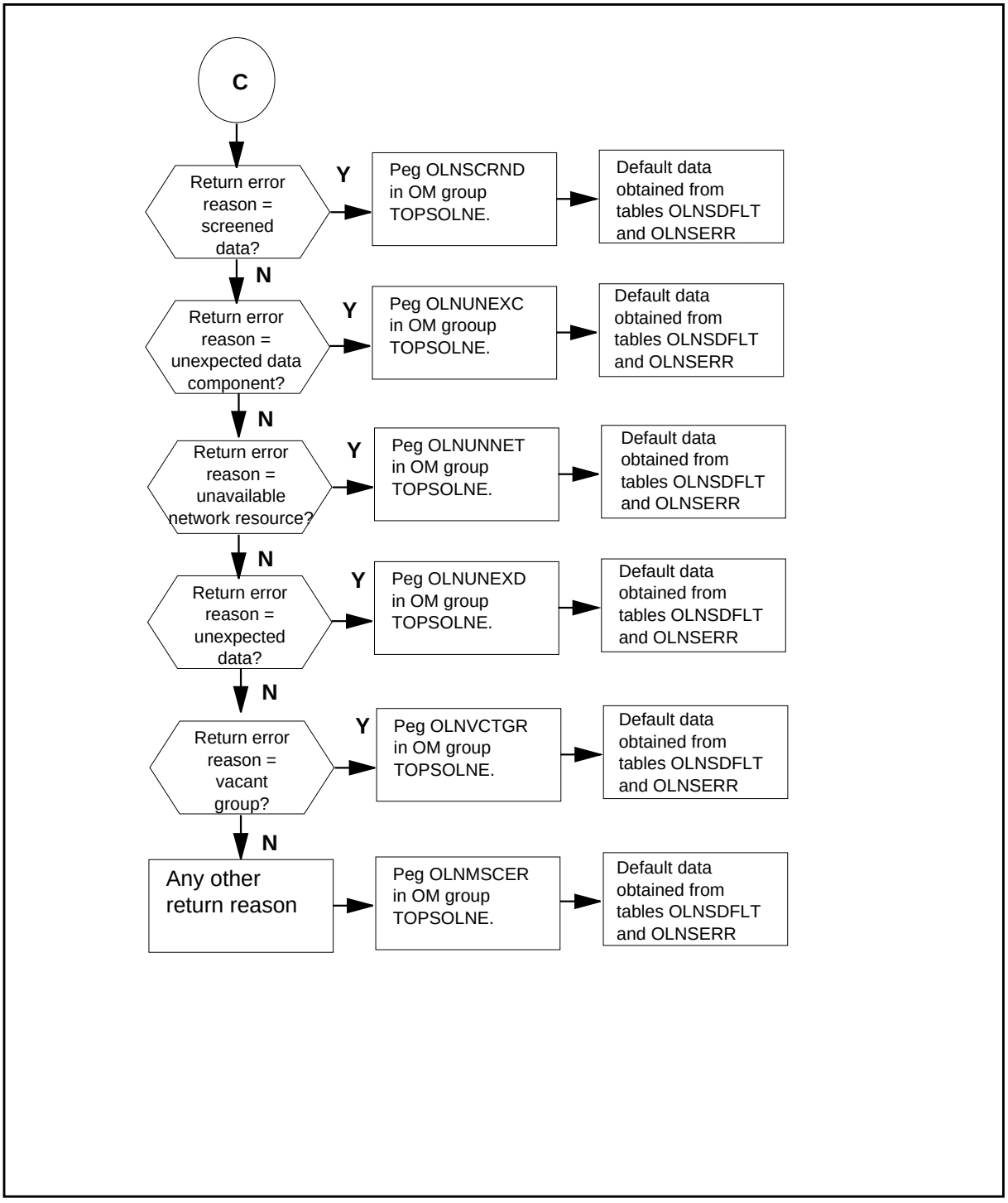


OM group TOPSOLNS (continued)

OM group TOPSOLNS registers (continued)

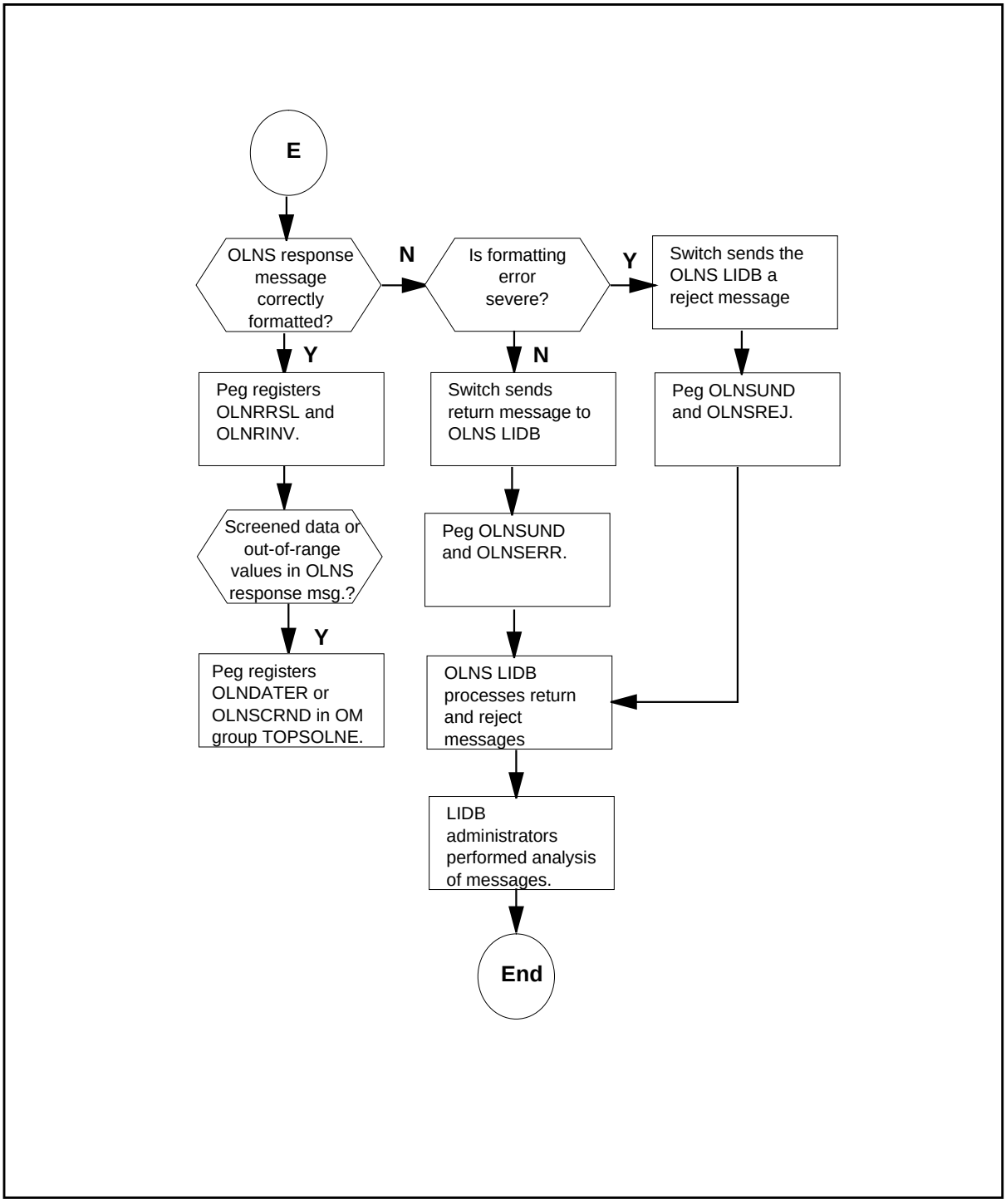


OM group TOPSOLNS registers (continued)

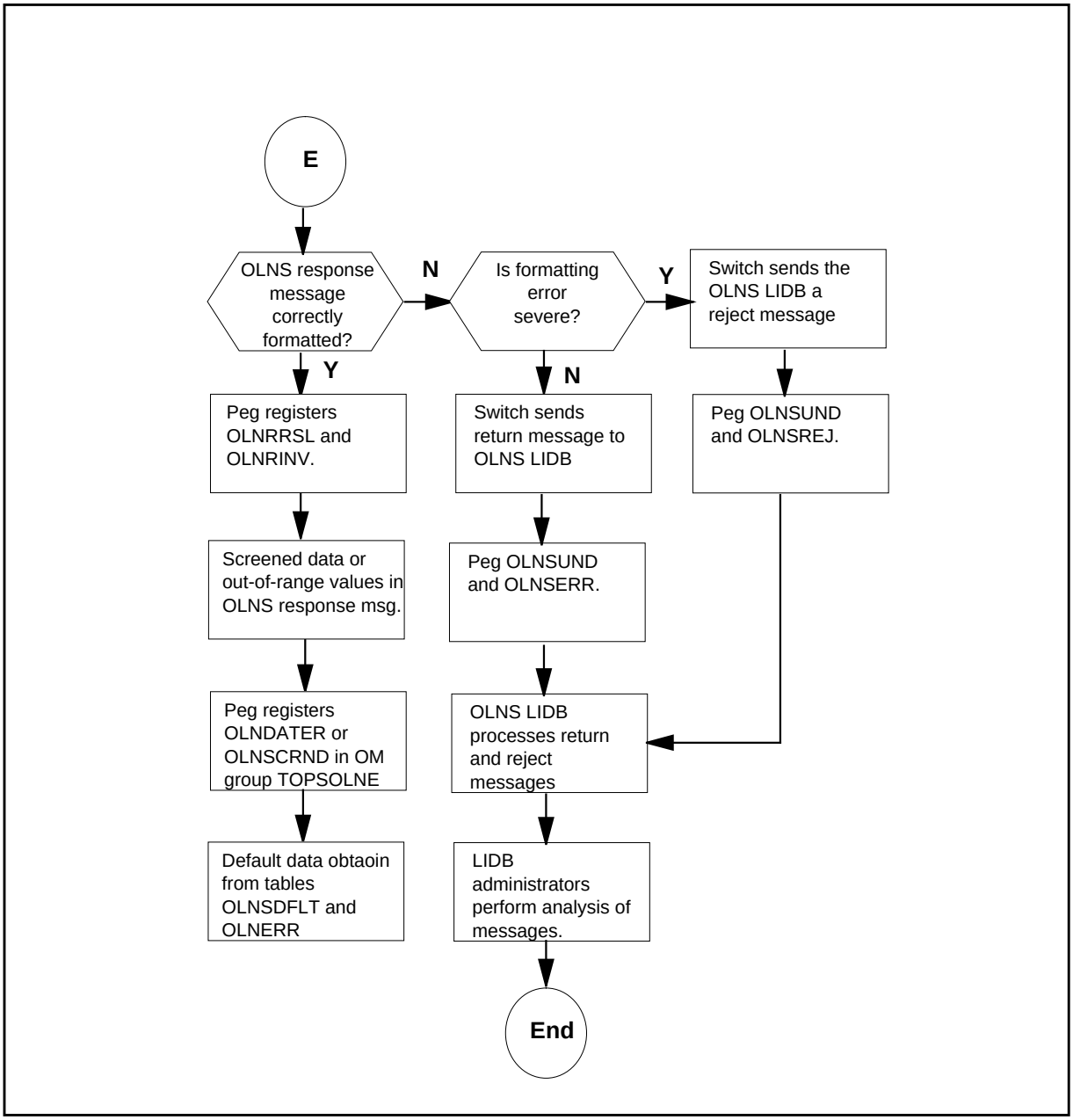


OM group TOPSOLNS (continued)

OM group TOPSOLNS registers (continued)



OM group TOPSOLNS registers (continued)



Note: This flowchart shows pegging conditions for OM groups TOPSOLNE and TOPSOLNS. TOPSOLNE registers are specifically identified in the flowchart; all other registers belong to OM group TOPSOLNS.

OM group TOPSOLNS (continued)

Register OLNACG

Register Originating Line Number Screening Automatic Code Gapping (OLNACG)

Register OLNACG is incremented when network management in effect for the NPANXX of the calling number or if the internal ACG table is full.

Note: This table is not a datafillable DMS table, but, is an internal to the DMS switch and is used specifically to manage ACG activity.

Register OLNACG release history

Register OLNACG was introduced in NA006.

Associated registers

None

Associated logs

Log TOPS127 is associated with register OLNACG.

Extension registers

None

Register OLNNOTRD

Register Originating Line Number Screening No Transaction Identifier (OLNNOTRD)

Register OLNNOTRD is incremented when there are no transaction IDs available for the OLNS transaction ID management resource.

Register OLNNOTRD release history

Register OLNNOTRD was introduced in NA006.

Associated registers

None

Associated logs

Log TCAP199 is associated with register OLNNOTRD.

Extension registers

None

Register OLNRINV

Register Originating Line Number Screening Received Invoke (last) component (OLNRINV)

Register OLNRINV is incremented when the DMS switch receives an invoke (last) component from the OLNS LIDB.

Register OLNRINV release history

Register OLNRINV was introduced in NA006.

Associated registers

None

Associated logs

None

Extension registers

OLNRINV2

Register OLNRREJ

Register Originating Line Number Screening Received Reject component (OLNRREJ)

Register OLNRREJ is incremented when the DMS switch receives a reject component from the OLNS LIDB.

Register OLNRREJ release history

Register OLNRREJ was introduced in NA006.

Associated registers

Register OLNPRTPR, of OM group TOPSOLNE, is associated with register OLNRREJ.

Associated logs

Log TCAP100 is associated with register OLNRREJ.

Extension registers

None

Register OLNRRERR

Register Originating Line Number Screening Received Return Error component (OLNRRERR)

OM group TOPSOLNS (continued)

Register OLNRRERR is incremented when the DMS switch receives a return error component from the OLNS LIDB.

Register OLNRRERR release history

Register OLNRRERR was introduced in NA006.

Associated registers

None

Associated logs

- The following logs are associated with register OLNRRERR:
- TCAP100
- TOPS127

Extension registers

None

Register OLNRRSL

Register Originating Line Number Screening Received Return Result (last) component (OLNRRSL)

Register OLNRRSL is incremented when the DMS switch receives a return result (last) component from the OLNS LIDB.

Register OLNRRSL release history

Register OLNRRSL was introduced in NA006.

Associated registers

None

Associated logs

None

Extension registers

OLNRRSL2

Register OLNRRSP

Register Originating Line Number Screening Received Response package (OLNRRSP)

Register OLNRRSP is incremented when the DMS switch receives a response package from the OLNS LIDB.

Register OLNRRSP release history

Register OLNRRSP was introduced in NA006.

Associated registers

None

Associated logs

None

Extension registers

OLNRRSP2

Register OLNSINV

Register Originating Line Number Screening Sent Invoke (last) component (OLNSINV)

Register OLNSINV is incremented when the DMS switch sends an invoke (last) component to the OLNS LIDB.

Register OLNSINV release history

Register OLNSINV was introduced in NA006.

Associated registers

None

Associated logs

None

Extension registers

OLNSINV2

Register OLNSQWP

Register Originating Line Number Screening Sent Query With Permission package (OLNSQWP)

Register OLNSQWP is incremented when the DMS switch sends a query with permission package to the OLNS LIDB.

Register OLNSQWP release history

Register OLNSQWP was introduced in NA006.

OM group TOPSOLNS (continued)

Associated registers

None

Associated logs

None

Extension registers

OLNSQWP2

Register OLNSREJ

Register Originating Line Number Screening Sent Reject component (OLNSREJ)

Register OLNSREJ is incremented when the DMS switch sends a reject component to the OLNS LIDB.

Register OLNSREJ release history

Register OLNSREJ was introduced in NA006.

Associated registers

None

Associated logs

None

Extension registers

None

Register OLNSRERR

Register Originating Line Number Screening Sent Return Error component (OLNSRERR)

Register OLNSRERR is incremented when the DMS switch sends a return error component to the OLNS LIDB.

Register OLNSRERR release history

Register OLNSRERR was introduced in NA006.

Associated registers

None

Associated logs

None

Extension registers

None

Register OLNSUND

Register Originating Line Number Screening Sent Uni-Directional package (OLNSUND)

Register OLNSUND is incremented when the DMS switch sends a uni-directional package to the OLNS LIDB.

Register OLNSUND release history

Register OLNSUND was introduced in NA006.

Associated registers

None

Associated logs

None

Extension registers

None

Register OLNTMOUT

Register Originating Line Number Screening Time Out (OLNTMOUT)

Register OLNTMOUT is incremented when a time out occurs for an OLNS query.

Register OLNTMOUT release history

Register OLNTMOUT was introduced in NA006.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TOPSPARS

OM description

TOPS personal audio response system

TOPSPARS monitors the use of the telephone operator position system (TOPS) personal audio response system (PARS).

TOPSPARS contains four registers that count:

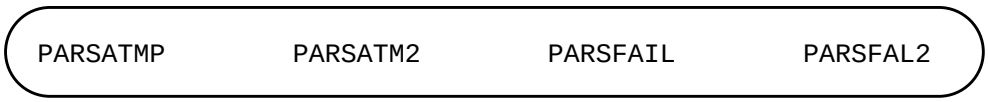
- calls that are marked to receive PARS service
- calls that are marked to receive PARS service but could not receive PARS service

Release history

OM group TOPSPARS was introduced in BCS30.

Registers

OM group TOPSPARS registers display on the MAP terminal as follows:



Group structure

OM group TOPSPARS provides one tuple for each standalone and host office.

Key field:
None

Info field:
None

Associated OM groups

None

Associated functional groups

The TOPS functional group is associated with OM group TOPSPARS.

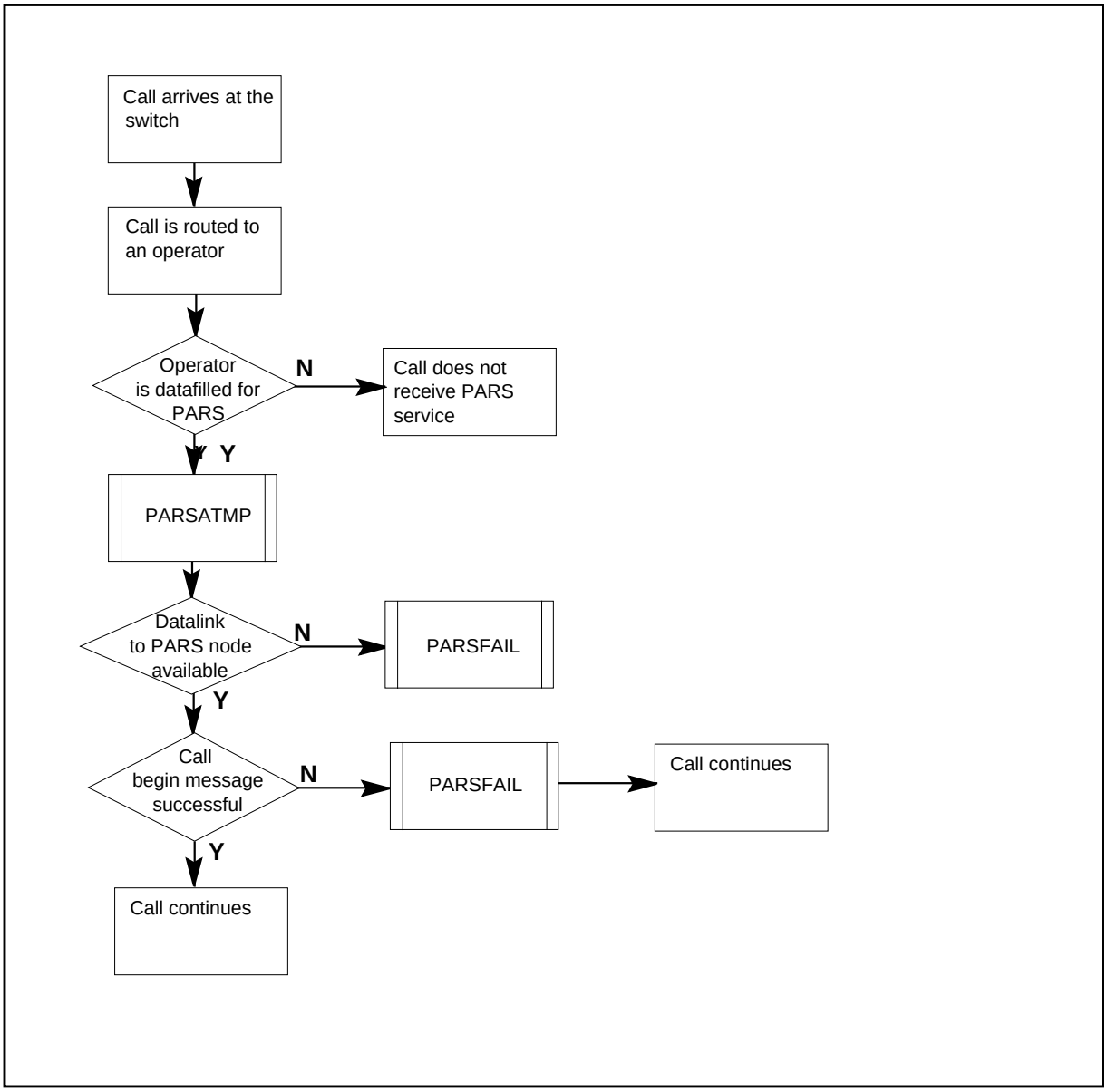
Associated functionality codes

The functionality codes associated with OM group TOPSPARS are shown in the following table.

Functionality	Code
TOPS External Personal Audio Response System	NTXJ37AA

OM group TOPSPARS (continued)

OM group TOPSPARS registers



Register PARSATMP

Personal audio response system attempts

PARSATMP is incremented when a call that is marked to receive personal audio response system (PARS) service is presented to a TOPS position and PARS service is attempted.

Register PARSATMP release history

PARSATMP was introduced in BCS30.

Associated registers

None

Associated logs

None

Extension registers

PARSATM2

Register PARSFAIL

Personal audio response system failure

PARSFAIL is incremented when a call-begin message cannot be successfully sent for a call presentation that is marked for personal audio response system (PARS) service.

Register PARSFAIL release history

PARSFAIL was introduced in BCS30.

Associated registers

None

Associated logs

None

Extension registers

PARSFAL2

OM group TOPSQMS

OM description

TOPS queue management system

OM group TOPSQMS records queuing events for TOPS calls that request an operator position from the queue management system (QMS) call and agent manager (CAM). TOPSQMS also records the action taken by the QMS CAM, in response to these requests. The queuing events are counted for each call queue.

Release history

OM group TOPSQMS was introduced in BCS34.

Registers

OM group TOPSQMS registers display on the MAP terminal as follows:

POSRQSTD	POSRQST2	CQUEUED	CQUEUED2
GOTPOSIM	GOTPOSI2	CDEFLECT	COVFLMAX
COVFLNCQ	CQDENIED	CABANDON	CREQUEUE

Group structure

OM group TOPSQMS provides 255 tuples per office.

Key field:
None

Info field:
TQMS_QUEUEINDEX_REGISTERINFO

Associated OM groups

None

Associated functional groups

None

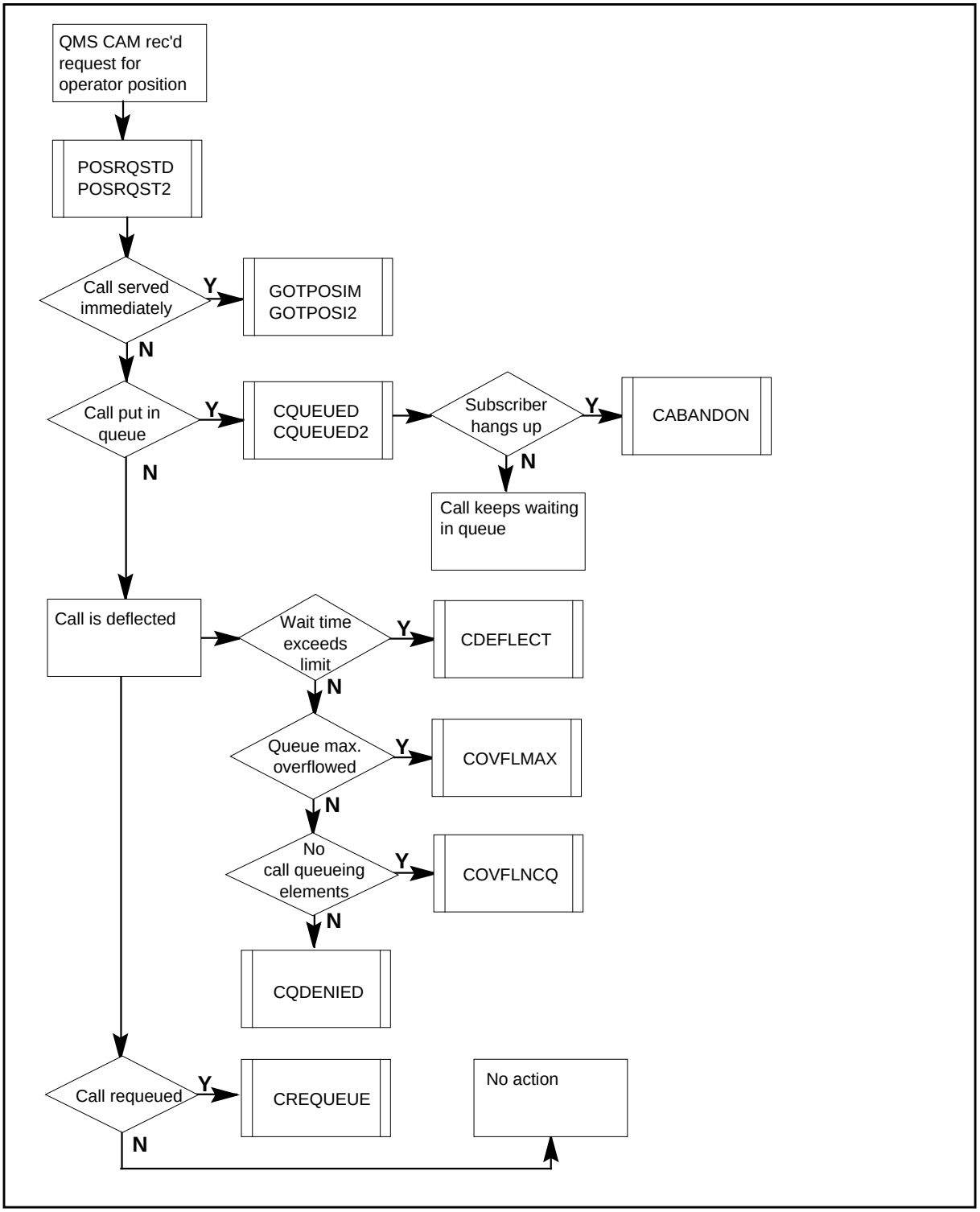
Associated functionality codes

The functionality codes associated with OM group TOPSQMS are shown in the following table:

Functionality	Code
TOPS Host Queue Management System	NTXP41AA01

OM group TOPSQMS (continued)

OM group TOPSQMS registers



Register CABANDON

Call abandoned

CABANDON is incremented each time a subscriber hangs up while the call is in queue for an operator position.

Register CABANDON release history

CABANDON was introduced in BCS34.

Associated registers

None

Associated logs

None

Extension registers

None

Register CDEFLECT

Call deflected

CDEFLECT is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the projected wait time exceeds the maximum limit. This wait time (CDTIME) is datafilled for the particular queue in table QMSCQDEF.

Register CDEFLECT release history

CDEFLECT was introduced in BCS34.

Associated registers

COVFLMAX is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the number of calls in that particular queue exceeds the maximum limit.

COVFLNCQ is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the call queuing elements are exhausted for the entire application.

CQDENIED is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the QMS CAM is unable to queue the call.

OM group TOPSQMS (continued)

CQUEUED is incremented each time the QMS CAM queues a call for an operator position because no agent is immediately available to serve the call.

GOTPOSIM is incremented each time an agent is immediately available to serve the call that requested an operator position from the QMS CAM.

POSRQSTD is incremented each time the QMS CAM receives a request for an operator position to serve a call.

POSRQSTD = CQUEUED + GOTPOSIM + CDEFLECT + COVFLMAX + COVFLNCQ + CQDENIED

Associated logs

None

Extension registers

None

Register COVFLMAX

Call overflowed

COVFLMAX is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the number of calls in that particular queue exceeds the maximum limit. This limit (MAXSIZE) is datafilled for the particular queue in table QMSCQDEF.

Register COVFLMAX release history

COVFLMAX was introduced in BCS34.

Associated registers

CDEFLECT is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the projected wait time exceeds the maximum limit.

COVFLNCQ is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the call queuing elements are exhausted for the entire application.

CQDENIED is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the QMS CAM is unable to queue the call.

CQUEUED is incremented each time the QMS CAM queues a call for an operator position because no agent is immediately available to serve the call.

GOTPOSIM is incremented each time an agent is immediately available to serve the call that requested an operator position from the QMS CAM.

POSRQSTD is incremented each time the QMS CAM receives a request for an operator position to serve a call.

POSRQSTD = CQUEUED + GOTPOSIM + CDEFLECT + COVFLMAX + COVFLNCQ + CQDENIED

Associated logs

None

Extension registers

None

Register COVFLNCQ

Call overflowed no call queue elements

COVFLNCQ is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the call queuing elements are exhausted for the entire application. This value (CQELEMS) is datafilled for the particular TOPS application in table QAPLNDEF.

Register COVFLNCQ release history

COVFLNCQ was introduced in BCS34.

Associated registers

CDEFLECT is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the projected wait time exceeds the maximum limit.

COVFLMAX is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the number of calls in that particular queue exceeds the maximum limit.

CQDENIED is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the QMS CAM is unable to queue the call.

CQUEUED is incremented each time the QMS CAM queues a call for an operator position because no agent is immediately available to serve the call.

GOTPOSIM is incremented each time an agent is immediately available to serve the call that requested an operator position from the QMS CAM.

OM group TOPSQMS (continued)

POSRQSTD is incremented each time the QMS CAM receives a request for an operator position to serve a call.

POSRQSTD = CQUEUED + GOTPOSIM + CDEFLECT + COVFLMAX + COVFLNCQ + CQDENIED

Associated logs

None

Extension registers

None

Register CQDENIED

Call queuing denied

CQDENIED is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the QMS CAM is unable to queue the call.

Register CQDENIED release history

CQDENIED was introduced in BCS34.

Associated registers

CDEFLECT is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the projected wait time exceeds the maximum limit.

COVFLMAX is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the number of calls in that particular queue exceeds the maximum limit.

COVFLNCQ is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the call queuing elements are exhausted for the entire application.

CQUEUED is incremented each time the QMS CAM queues a call for an operator position because no agent is immediately available to serve the call.

GOTPOSIM is incremented each time an agent is immediately available to serve the call that requested an operator position from the QMS CAM.

POSRQSTD is incremented each time the QMS CAM receives a request for an operator position to serve a call.

POSRQSTD = CQUEUED + GOTPOSIM + CDEFLECT + COVFLMAX + COVFLNCQ + CQDENIED

Associated logs

None

Extension registers

None

Register CQUEUED

Call queued

CQUEUED is incremented each time the QMS CAM queues a call for an operator position because no agent is immediately available to serve the call.

Register CQUEUED release history

CQUEUED was introduced in BCS34.

Associated registers

CDEFLECT is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the projected wait time exceeds the maximum limit.

COVFLMAX is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the number of calls in that particular queue exceeds the maximum limit.

COVFLNCQ is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the call queuing elements are exhausted for the entire application.

CQDENIED is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the QMS CAM is unable to queue the call.

GOTPOSIM is incremented each time an agent is immediately available to serve the call that requested an operator from the QMS CAM.

POSRQSTD is incremented each time the QMS CAM receives a request for an operator position to serve a call.

POSRQSTD = CQUEUED + GOTPOSIM + CDEFLECT + COVFLMAX + COVFLNCQ + CQDENIED

OM group TOPSQMS (continued)

Associated logs

None

Extension registers

CQUEUED2

Register CREQUEUE

Call requeued

CREQUEUE is incremented each time the QMS CAM places a call in queue for an operator position, after the call was previously deflected.

Register CREQUEUE release history

CREQUEUE was introduced in BCS34.

Associated registers

None

Associated logs

None

Extension registers

None

Register GOTPOSIM

Got position immediately

GOTPOSIM is incremented each time an agent is immediately available to serve the call that requested an operator position from the QMS CAM.

Register GOTPOSIM release history

GOTPOSIM was introduced in BCS34.

Associated registers

CDEFLECT is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the projected wait time exceeds the maximum limit.

COVFLMAX is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the number of calls in that particular queue exceeds the maximum limit.

COVFLNCQ is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the call queuing elements are exhausted for the entire application.

CQDENIED is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the QMS CAM is unable to queue the call.

CQUEUED is incremented each time the QMS CAM queues a call for an operator position because no agent is immediately available to serve the call.

POSRQSTD is incremented each time the QMS CAM receives a request for an operator position to serve a call.

POSRQSTD = CQUEUED + GOTPOSIM + CDEFLECT + COVFLMAX + COVFLNCQ + CQDENIED

Associated logs

None

Extension registers

GOTPOSI2

Register POSRQSTD

Position requested

POSRQSTD is incremented each time the QMS CAM receives a request for an operator position to serve a call.

Register POSRQSTD release history

POSRQSTD was introduced in BCS34.

Associated registers

CDEFLECT is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the projected wait time exceeds the maximum limit.

COVFLMAX is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the number of calls in that particular queue exceeds the maximum limit.

COVFLNCQ is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the call queuing elements are exhausted for the entire application.

OM group TOPSQMS (end)

CQDENIED is incremented each time the QMS CAM deflects a call because no agent is immediately available to serve the call and the QMS CAM is unable to queue the call.

CQUEUED is incremented each time the QMS CAM queues a call for an operator position because no agent is immediately available to serve the call.

GOTPOSIM is incremented each time an agent is immediately available to serve the call that requested an operator position from the QMS CAM.

POSRQSTD = CQUEUED + GOTPOSIM + CDEFLECT + COVFLMAX + COVFLNCQ + CQDENIED

Associated logs

None

Extension registers

POSRQST2

OM group TOPSRLT2

OM description

Traffic Operator Position System (TOPS) Release Link Trunking (RLT) for RLT Variant 2 (TOPSRLT2)

OM group TOPSRLT2 records RLT Variant 2 attempts, successes, failures, and abandons. This OM group is used for informational purposes only.

Release history

OM group TOPSRLT2 was introduced in TOPS07.

Registers

OM group TOPSRLT2 registers display on the MAP terminal as follows:

```
>omshow topsrlt2 active

TOPSRLT2

CLASS:   ACTIVE
START:1997/01/16 13:30:00 THU; STOP:1997/01/16 13:35:07 THU;
SLOWSAMPLES:         4 ; FASTSAMPLES:         31 ;

       KEY (COMMON_LANGUAGE_NAME)
          TRNSATT    TRNSATT2    TRNSSCS    TRNSSCS2
          TRNSFAIL   TRNSABAN    BRDGATT    BRDGATT2
          BRDGSCS    BRDGSCS2    BRDGFAIL   BRDGABAN

  225 ISUP2WIT
                71          0         70          0
                 1          0         23          0
                23          0          0          0
```

Group structure

OM group TOPSRLT2 provides up to 8192 tuples per office. This number equals the number of entries in table ISUPTRK.

Key field:

None

Info field:

Trunk Label - This field displays common language location identifiers (CLLI) datafilled in table ISUPTRK.

OM group TOPSRLT2 (continued)

This OM group displays all trunk groups datafilled in table ISUPTRK regardless of RLT variant designation (RLT variant 1 or RLT variant 2). The Digital Multiplex System (DMS) switch only pegs registers for trunk groups datafilled for RLT variant 2 usage.

Note: A FAR message is one that the TOPS operator or service node (SN) sends to the previous office to request that RLT (RLT transfer or bridge) be performed by a distant office.

Associated OM groups

OM group TOPSISUP is associated with OM group TOPSRLT2. This OM group records RLT for trunk groups utilizing RLT Variant 1. All trunks that are datafilled in table ISUPTRK will be displayed. However, only the trunk groups with field RLT set to RLT_REL will increment registers in this OM Group.

Associated functional groups

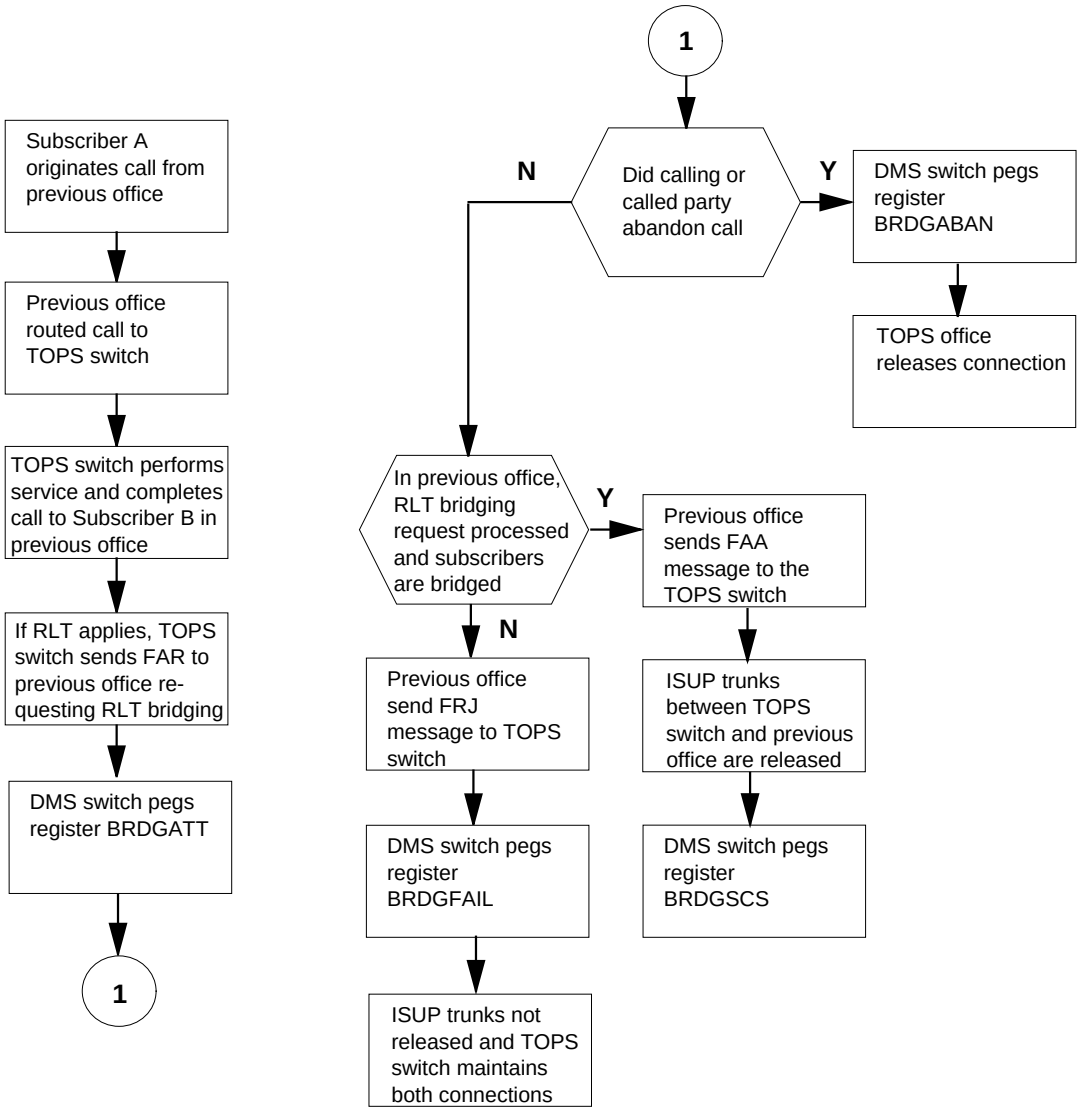
Functional group Operator Services Equal Access (OSEA0001) is associated with OM group TOPSRLT2.

Associated functionality codes

The functionality codes associated with OM group TOPSRLT2 are shown in the following table.

Functionality	Code
TOPS Carrier-RLT	OSEA0007

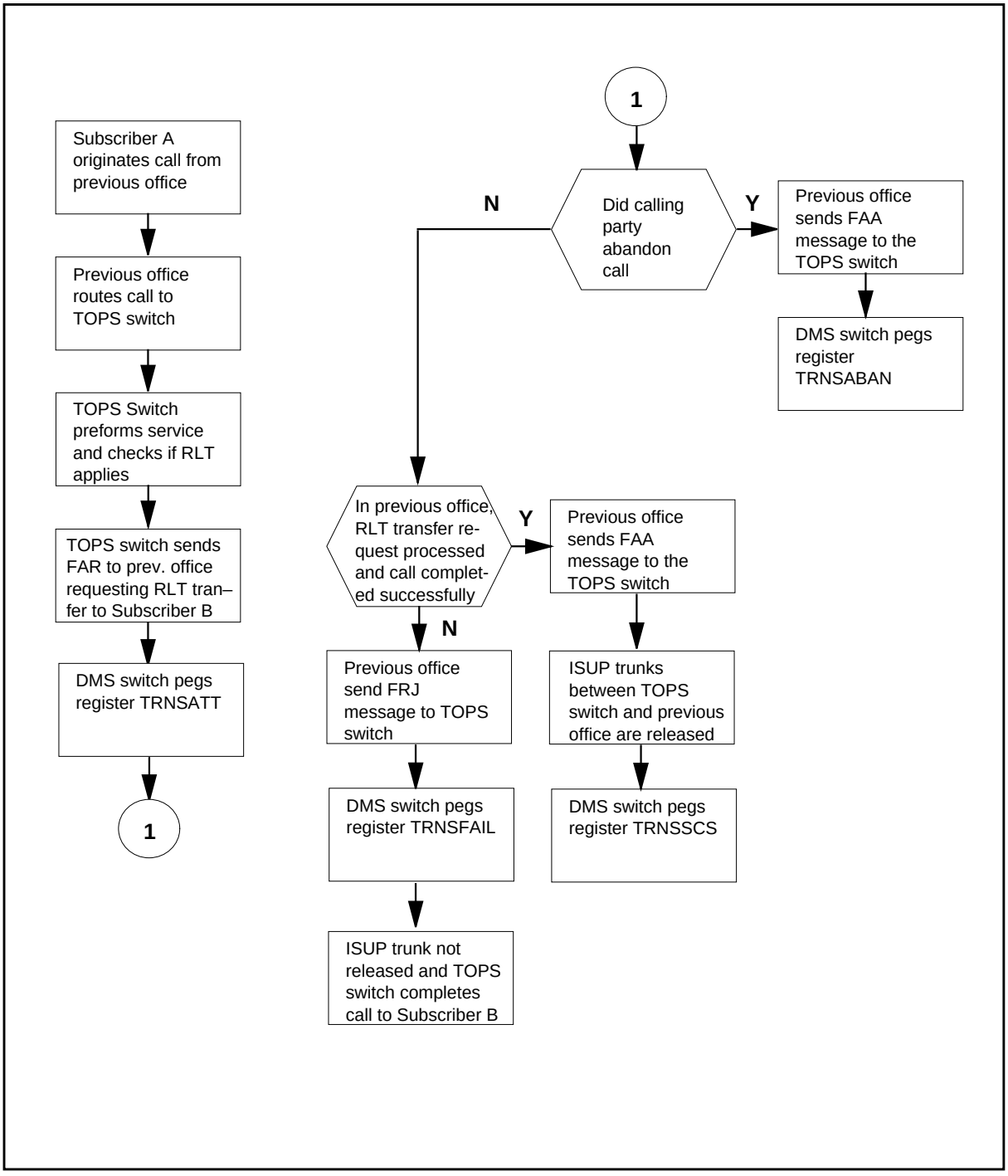
OM group TOPSRLT2 registers—Release Link Trunking bridging



Note: It is possible for an operator to initiate both calls to the previous office and request these calls to be bridged.

OM group TOPSRLT2 (continued)

OM group TOPSRLT2 registers—Release Link Trunking transfer



Register BRDGABAN

Register Release Link Trunking Variant 2, Bridge Abandons (BRDGABAN)

Register BRDGABAN measures the number of times a bridge scenario was abandoned by either party. One of the parties involved in the call went on-hook before RLT had a chance to be successful.

Register BRDGABAN release history

Register BRDGABAN was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register BRDGATT

Register Release Link Trunking Variant 2, Bridging Attempts (BRDGATT)

The DMS switch pegs register BRDGATT each time a TOPS switch sends a message to the previous office requesting bridging of both legs of a call.

Register BRDGATT release history

Register BRDGATT was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

BRDGATT2

Register BRDGFAIL

Register Release Link Trunking Variant 2, Bridge Failures (BRDGFAIL)

The DMS switch pegs register BRDGFAIL each time an attempt of the previous office to perform RLT bridging on a call fails.

Register BRDGFAIL release history

Register BRDGFAIL was introduced in TOPS07.

OM group TOPSRLT2 (continued)

Associated registers

None

Associated logs

Log TOPS129 is associated with this register. This log contains the reason the failure occurred. The reason is sent from the previous office in the CI Parameter of the ISUP FRJ message.

Extension registers

None

Register BRDGSCS

Register Release Link Trunking Variant 2, Bridge Successes (BRDGSCS)

The DMS switch pegs register BRDGSCS each time the previous office performs successful RLT bridging on a call. Once the previous office confirms the FAR message, the ISUP trunks between the TOPS switch and the previous office are released.

Register BRDGSCS release history

Register BRDGSCS was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

BRDGSCS2

Register TRNSABAN

Register Release Link Trunking Variant 2, Transfer Abandons (TRNSABAN)

Register TRNSABAN measures the number of times a transfer scenario was abandoned by the originating party. The originator of the call went on-hook before RLT had a chance to be successful.

Register TRNSABAN release history

Register TRNSABAN was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register TRNSATT

Register Release Link Trunking Variant 2, Transfer Attempts (TRNSATT)

The DMS switch pegs register TRNSATT each time the TOPS switch sends a FAR message to the previous office requesting routing to a specified number.

Register TRNSATT release history

Register TRNSATT was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

TRNSATT2

Register TRNSFAIL

Register Release Link Trunking Variant 2, Transfer Failures (TRNSFAIL)

The DMS switch pegs register TRNSFAIL each time an attempt of the previous office to perform an RLT transfer on a call fails.

Register TRNSFAIL release history

Register TRNSFAIL was introduced in TOPS07.

Associated registers

None

Associated logs

Log TOPS129 is associated with this register. This log contains the reason the failure occurred. The reason is sent from the previous office in the CI Parameter of the ISUP FRJ message.

OM group TOPSRLT2 (end)

Note: A FRJ message is one that the previous office sends to the TOPS switch to indicate that the previous office rejects the RLT request (RLT transfer or bridging).

Extension registers

None

Register TRNSSCS

Register Release Link Trunking Variant 2, Transfer Successes (TRNSSCS)

The DMS switch pegs register TRNSSCS each time the previous office performs a successful RLT transfer on a call. Once the previous office confirms the FAR message with an FAA, the ISUP trunk between the TOPS switch and the previous office are released. The previous office will not send an FAA until the call has been successfully transferred.

Register TRNSSCS release history

Register TRNSSCS was introduced in TOPS07.

Associated registers

None

Associated logs

None

Extension registers

TRNSSCS2

OM group TOPSRON

OM description

Traffic operator position system remote operator number identification

TOPSRON provides information about remote operator number identification (RONI) calls that are received at a traffic operator position system (TOPS) switch.

RONI is a feature that enables a TOPS operator at a distant TOPS toll switch to perform calling number identification for calls originating at another toll switch. RONI is performed when a CAMA operator is needed for:

- operator number identification (ONI) calls
- automatic number identification (ANI) calls when equipment fails

TOPSRON has three registers that count:

- RONI calls received at a TOPS switch
- abandoned RONI calls
- RONI calls that are reconnected to a TOPS position (recalls)

The data provided by TOPSRON is used to monitor RONI traffic at a TOPS switch.

Release history

OM group TOPSRON was introduced in BCS21.

Registers

OM group TOPSRON registers display on the MAP terminal as follows:

```
RONATT      RONRECL     RONQABN
```

Group structure

OM group TOPSRON provides one tuple for each TOPS office receiving RONI calls.

Key field:
None

Info field:
None

OM group TOPSRON (continued)

Associated OM groups

None

Associated functional groups

The following functional groups are associated with OM group TOPSRON:

- DMS-100/200 Local/Toll
- DMS-200 Toll
- DMS-200 TOPS
- DMS-200 ITOPS

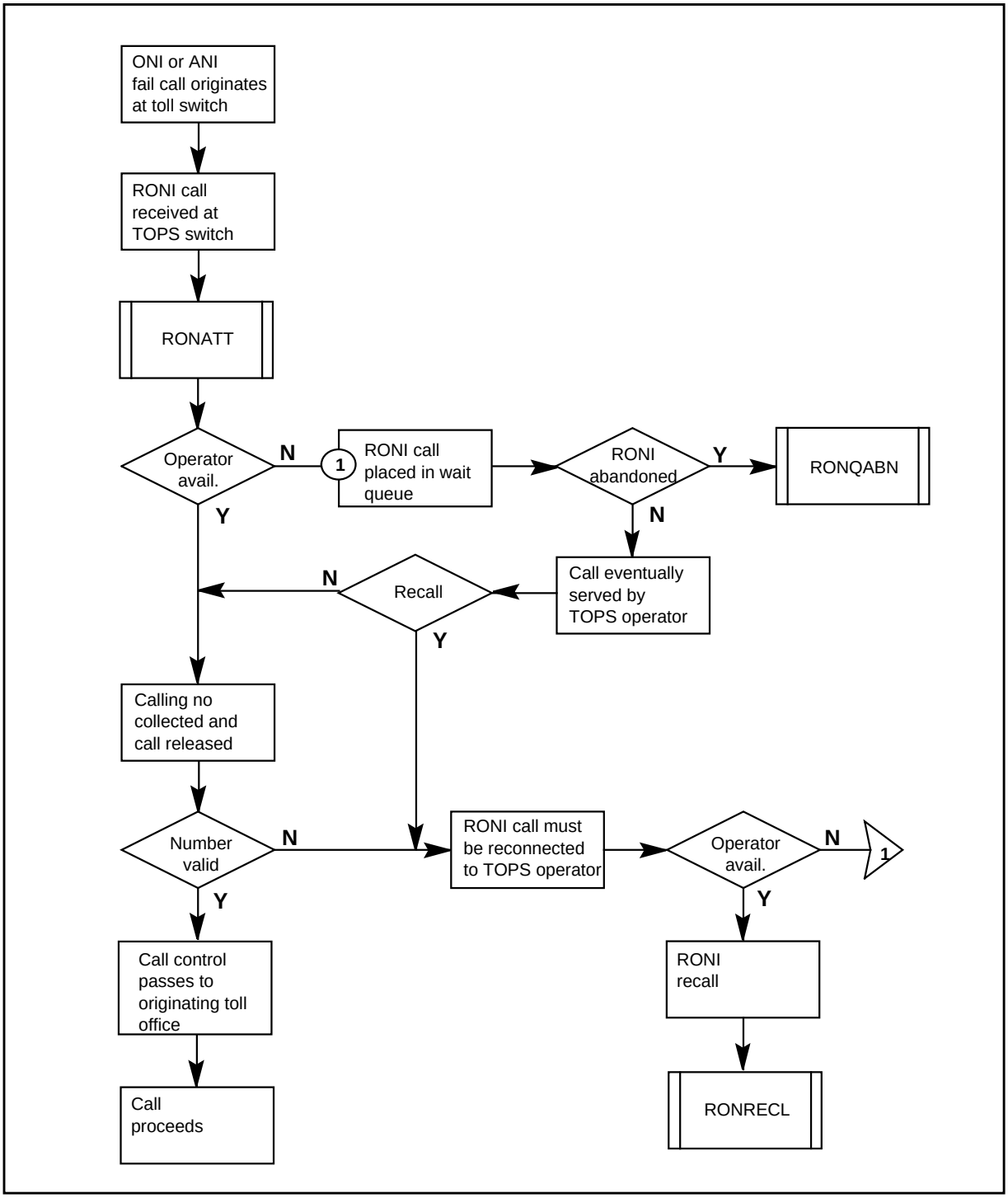
Associated functionality codes

The functionality codes associated with OM group TOPSRON are shown in the following table.

Functionality	Code
TOPS Call Processing Features	NTX030CC

OM group TOPSRON (continued)

OM group TOPSRON registers



OM group TOPSRON (continued)

Register RONATT

Remote operator number identification calls attached

RONATT is incremented when an incomingremote operator number identification.

(RONI) call is received by a traffic operator position system (TOPS) switch.

Register RONATT release history

RONATT was introduced in BCS21.

Associated registers

None

Associated logs

None

Extension registers

None

Register RONQABN

Remote operator number identification abandons

RONQABN is incremented when a remote operator number identification (RONI) call originating at a toll switch is queued at a TOPS switch but is abandoned before being served by a traffic operator position system (TOPS) operator.

Register RONQABN release history

RONQABN was introduced in BCS21.

Associated registers

None

Associated logs

None

Extension registers

None

Register RONRECL

Remote operator number identification recalls

RONRECL is incremented when a remote operator number identification (RONI) call is reconnected to a traffic operator position system (TOPS) position (recall) because calling number validation was unsuccessful.

Register RONRECL release history

RONRECL was introduced in BCS21.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TOPSRTRS

OM description

Traffic Operator Position System Real-Time Rating System

The TOPSRTRS OM group measures the use of the RTRS by TOPS.

Release history

OM group TOPSRTRS was introduced in TOPS04.

Registers

The following OM group TOPSRTRS registers display on the MAP terminal as follows:

```
>omshow topsrtrs active
TOPSRTRS
CLASS,   ACTIVE
START, 1995/01/16  16:30:00 MON:STOP:1995/01/16 16:38:07 MON:
SLOWSAMPLES:         10  FASTSAMPLES:     93

       MTSRATE  MTSRATE2  MTSFAIL    DARATE
       DARATE2    DAFAIL DACCRATE DACCRATE2
      DACCFAIL   TACRATE TACRATE2   TACFAIL
      QMSCRATE  QMSCRAT2 QMSCFAIL   EXTRATE
      EXTRATE2   EXTFAIL  INTRATE  INTRATE2
      RATETIME   RATECAN  RATEACG
             0         0        0         0
             0         0        0         0
             0         0        0         0
             0         0        0         0
             0         0        0         0
             0         0        0
```

Group structure

OM group TOPSRTRS

Key field:
None

Info field:
None

Associated OM groups

RTRSCCP

RTRTCAP

OM group TOPSRTRS (continued)

Associated functional groups

The following functional groups are associated with OM group TOPSRTRS:

- ENSV0001

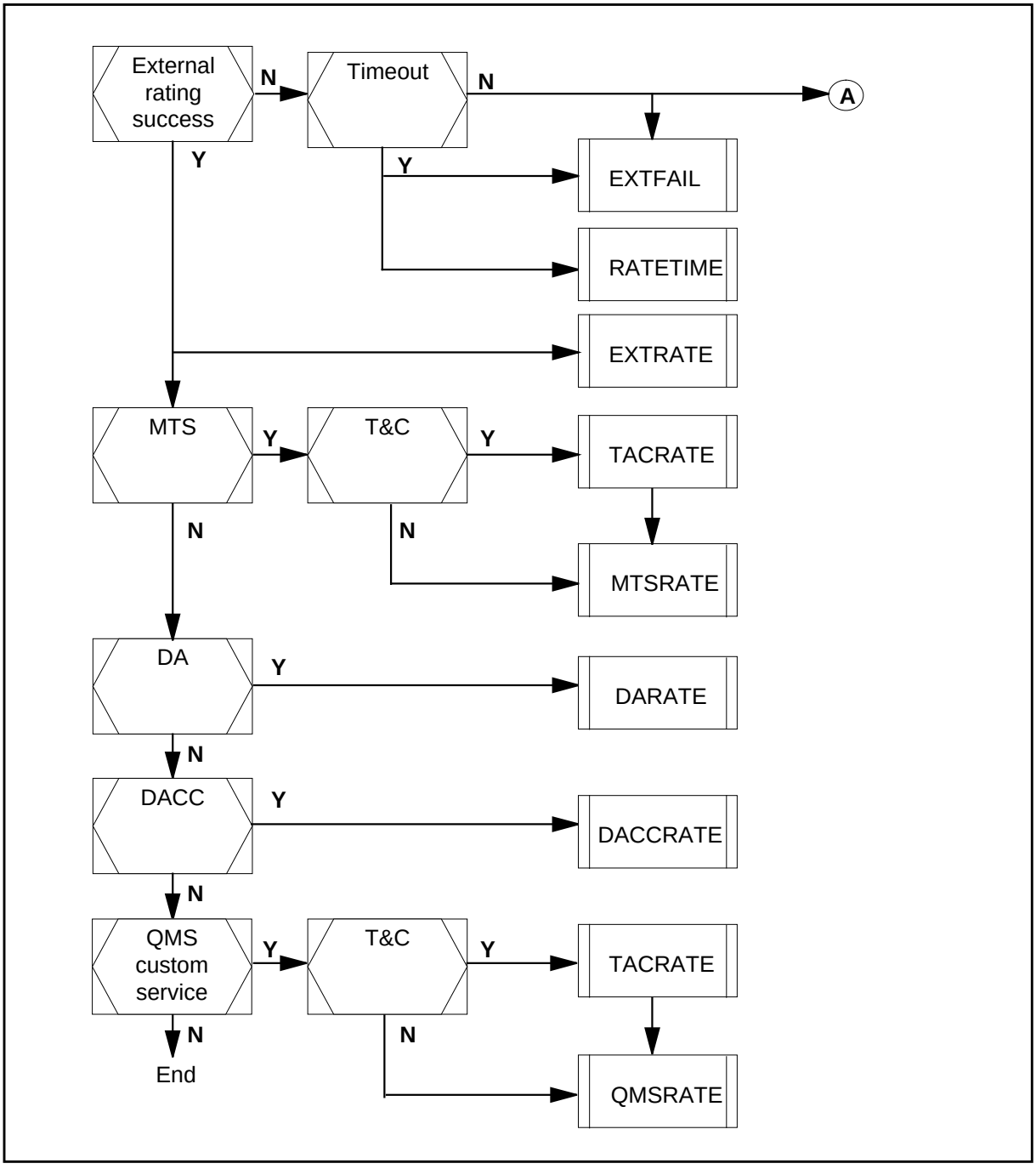
Associated functionality codes

The functionality codes associated with OM group TOPSRTRS are shown in the following table.

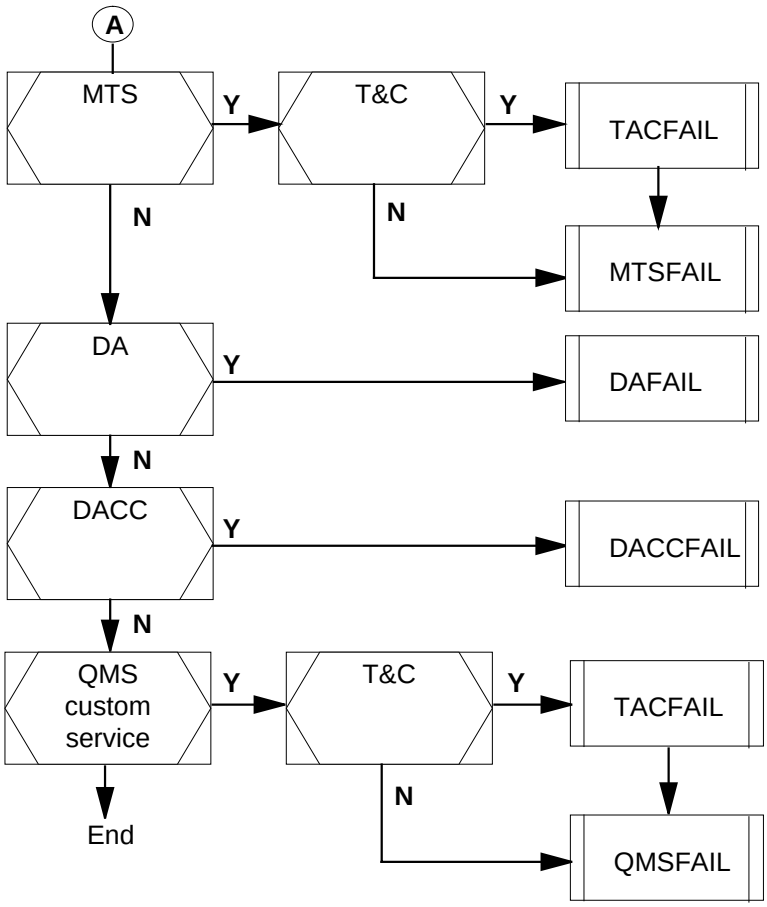
Functionality	Code
External RTRS Interface	ENSV0009

OM group TOPSRTRS (continued)

OM group TOPSRTRS registers



OM group TOPSRTRS registers (continued)



Note: See text for descriptions of registers: INTRATE, RATECAN, and RATEACG

Register DAFAIL

Register Directory Assistance Rating Failed

DAFAIL is pegged each time external rating fails on a TOPS directory assistance call.

Register DAFAIL release history

Register DAFAIL was introduced in TOPS04.

OM group TOPSRTRS (continued)

Associated registers

EXTFAIL is pegged whenever DAFAIL is pegged

Associated logs

TCAP100 or TCAP101, unless the failure was a result of automatic code gapping (ACG), in which case no log is generated

Extension registers

None

Register DACCFAIL

Register Directory Assistance Call Completion Rating Failed

This register is pegged each time external rating fails on a TOPS directory assistance call completion call.

Register DACC release history

Register DACCFAIL was introduced in TOPS04.

Associated registers

EXTFAIL is pegged whenever DACCFAIL is pegged.

Associated logs

TCAP100 or TCAP101 If the failure is the result of automatic code gapping (ACG), no log is generated.

Extension registers

None

Register DACCRATE

Register Directory Assistance Call Completion Rated

This register is pegged each time a TOPS directory assistance call completion (DACC) call is successfully rated.

Register <short name> release history

Register DACCRATE was introduced in TOPS04.

Associated registers

EXTRATE is pegged whenever DACCRATE is pegged.

Associated logs

None

Extension registers

DACCRATE2

Register DARATE

Register Directory Assistance Rated

This register is pegged each time a TOPS directory assistance call is successfully rated.

Register DARATE release history

Register DARATE was introduced in TOPS04.

Associated registers

EXTRATE is pegged whenever DARATE is pegged.

Associated logs

None

Extension registers

DARATE2

Register EXTFAIL

Register External Rating Failed

This register is pegged each time an external rating fails.

Register EXTFAIL release history

Register EXTFAIL was introduced in TOPS04.

Associated registers

The register in this group representing the call service type is also pegged.

Associated logs

TCAP100 or TCAP101 If the failure is the result of automatic code gapping (ACG), no log is generated.

Extension registers

None

Register EXTRATE

Register External Rating

This register is pegged each time an external rating succeeds.

OM group TOPSRTRS (continued)

Register EXTRATE release history

Register EXTRATE was introduced in TOPS04.

Associated registers

The register in this group representing the call service type is also pegged.

Associated logs

TCAP100 or TCAP101 If the failure is the result of automatic code gapping (ACG), no log is generated.

Extension registers

EXTRATE2

Register INTRATE

Register Internal Rating

This register is pegged each time the internal rating system is accessed to calculate charges for a TOPS call. There is no indication that internal rating succeeded or failed. This register exists to let the operating company know if the internal rating system is still in use.

Register INTRATE release history

Register INTRATE was introduced in TOPS04.

Associated registers

None

Associated logs

None

Extension registers

INTRATE2

Register MTSFAIL

Register Message Telecommunication Service Rated

This register is pegged each time external rating fails on a TOPS message telecommunication service (MTS) call.

Register MTSFAIL release history

Register MTSFAIL was introduced in TOPS04.

Associated registers

EXTFAIL is pegged whenever MTSFAIL is pegged.

Associated logs

TCAP100 or TCAP101 If the failure is the result of automatic code gapping (ACG), no log is generated.

Extension registers

None

Register MTSRATE

Register Message Telecommunication Service Rated

This register is pegged each time a TOPS message telecommunication Service (MTS) call is successfully rated.

Register MTSRATE release history

Register MTSRATE was introduced in TOPS04.

Associated registers

EXTRATE is pegged whenever MTSRATE is pegged.

Associated logs

None

Extension registers

MTSRATE2

Register QMSCFAIL

Register QMS Custom Service Rating Failed

This register is pegged whenever external rating fails on a QMS custom service.

Register QMSCFAIL release history

Register QMSCFAIL was introduced in TOPS04.

Associated registers

EXTFAIL is pegged whenever QMSCFAIL is pegged

Associated logs

TCAP100 or TCAP101 If the failure is the result of automatic code gapping (ACG), no log is generated.

OM group TOPSRTRS (continued)

Extension registers

None

Register QMSCRATE

Register QMS Custom Service Rated

This register is pegged each time a QMS custom service is successfully rated.

Register QMSCRATE release history

Register QMSCRATE was introduced in OPS04.

Associated registers

EXTRATE is pegged whenever QMSCRATE is pegged.

Associated logs

None

Extension registers

QMSCRAT2

Register RATEACG

Register Rating Automatic Code Gap

This register is pegged each time an external rating query is not sent due to automatic code gapping (ACG).

Register RATEACG release history

Register RATEACG was introduced in TOPS04.

Associated registers

None

Associated logs

None

Extension registers

None

Register RATECAN

Register Rating Cancelled

This register is pegged each time an operator cancels an outstanding external rating query.

Register RATECAN release history

Register RATECAN was introduced in TOPS04.

Associated registers

None

Associated logs

None

Extension registers

None

Register RATETIME

Register Rating Time Out

Register RATETIME release history

Register RATETIME was introduced in TOPS04.

This register is pegged each time an external rating query times out (the response is not received within the time interval specified in table TOPSPARM tuple RTRS_TIMEOUT).

Associated registers

EXTFAIL is pegged whenever RATETIME is pegged. Register PKGTMOUT in group RTRTCAP is also pegged.

Associated logs

TOPS125 log is generated when an external rating query times out.

Extension registers

None

Register TACFAIL

Register Time and Charge Rating Failed

This register is pegged each time external rating fails when trying to calculate time and charges (T&C)

Register TACFAIL release history

Register TACFAIL was introduced in TOPS04.

OM group TOPSRTRS (end)

Associated registers

EXTFAIL is pegged whenever TACFAIL is pegged. MTSFAIL is also pegged if the call is not a QMS Custom Service. If the call is a QMS Custom Service. and the caller attempts to obtain T&C, but the query fails, QMSCFAIL is pegged in conjunction with TACFAIL.

Associated logs

TCAP100 or TCAP101 If the failure is the result of automatic code gapping (ACG), no log is generated.

Extension registers

None

Register TACRATE

Register Time and Charges Rated

This register is pegged each time external rating is used to provide time and charges (T&C) to a caller.

Register TACRATE release history

Register TACRATE was introduced in TOPS04.

Associated registers

EXTRATE is pegged whenever TACRATE is pegged. MTSRATE is also pegged if the call is not a QMS customer service. If the call is a QMS customer service, and the caller receives T&C, QMSCRATE is pegged in conjunction with TACRATE.

Associated logs

None

Extension registers

TACRATE2

OM group TOPSTRAF

OM description

Traffic Operator Position System (TOPS) traffic

TOPSTRAF provides information about TOPS traffic for TOPS stand-alone offices and operator centralization (OC) host and remote offices.

TOPSTRAF has 12 registers that count the following activities:

- successful and unsuccessful attempts to float calls
- released forward connections
- incoming TOPS calls
- connections to outgoing trunks
- TOPS calls that receive tones
- TOPS calls that receive announcements
- cancelled TOPS calls
- TOPS calls routed to interexchange carriers
- successful invocations of the special verify feature
- general assistance requests
- directed and paged assistance requests

The data supplied by TOPSTRAF is used to monitor TOPS traffic and to assess the service provided by TOPS operators.

Release history

OM group TOPSTRAF was introduced prior to BCS20.

NA006

Registers DIRASST and GENASST were added.

BCS34

A validation formula was added for register TOPSNIN.

BCS27

Register SPLVRFY was added.

BCS22

TOPSNIN2, TOPSTRK2, and XFRIC were added.

OM group TOPSTRAF (continued)

BCS21

Registers TOPSNIN, TOPSTRK, TOPSTON, TOPSANN, and TOPSCAN were added.

Registers

OM group TOPSTRAF registers display on the MAP terminal as follows:

```
>OMSHOW TOPSTRAF ACTIVE

TOPSTRAF

CLASS: ACTIVE
START:1996/04/14 15:30:00 FRI; STOP: 1996/04/14 15:58:38 FRI;
SLOWSAMPLES:       17 ;  FASTSAMPLES:        156 ;

          RLSFWD     OPRFLT       FLTFL    TOPSNIN
          TOPSNIN2   TOPSTRK      TOPSTRK2 TOPSTON
          TOPSANN    TOPSCAN      XFRIC    SPLVRFY
          GENASST    DIRASST

    0           0          0            0       0
                0          0            0       0
                0          0            0       0
                23         1
```

Group structure

OM group TOPSTRAF provides one tuple for each TOPS office.

Key field:
None

Info field:
None

Associated OM groups

None

OM group TOPSTRAF (continued)

Associated functional groups

The following functional group is associated with OM group TOPSTRAF:

- OSB - Opearator Services Basic

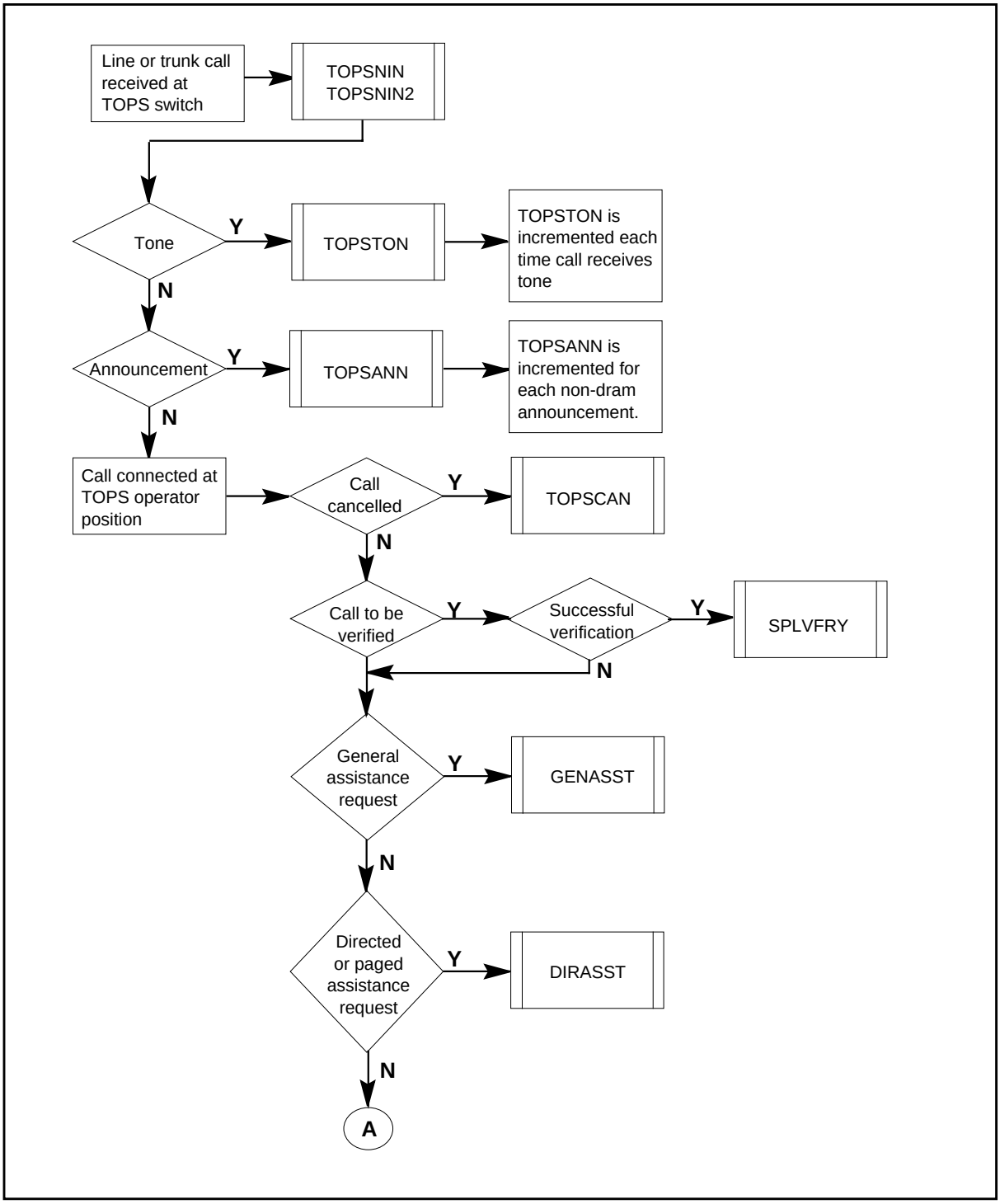
Associated functionality codes

The functionality codes associated with OM group TOPSTRAF are shown in the following table.

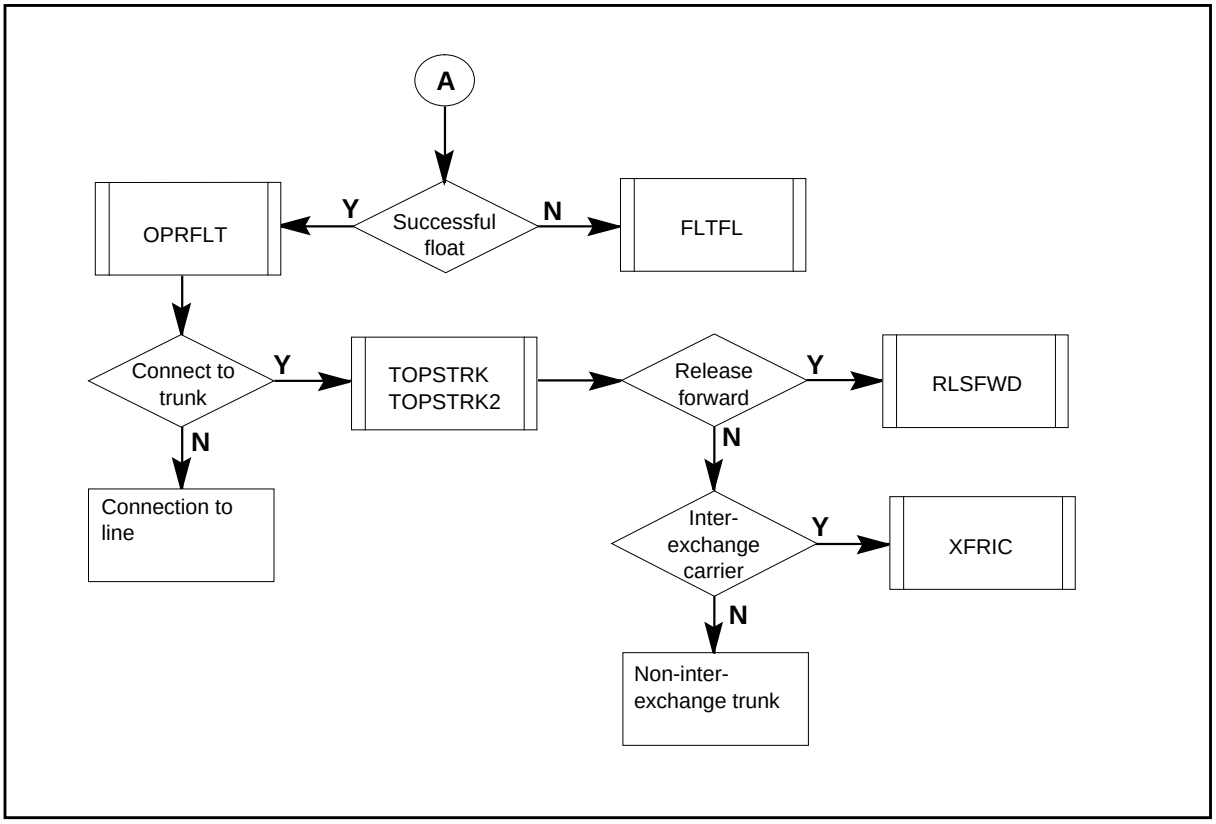
Functionality	Code
TOPS Call Processing Features	OSB00001
TOPS AWT Enhancements	OSB00001

OM group TOPSTRAF (continued)

OM group TOPSTRAF registers



OM group TOPSTRAF registers (continued)



Register DIRASST

Directed (and paged) assistance request

DIRASST is used to track how many requests have been processed for directed (and paged) assistance. It is pegged every time any operator makes a valid request for directed (or paged) assistance. This is true regardless of the specific keying sequence that a position requires to invoke directed (or paged) assistance.

DIRASST can be tested by requesting directed assistance on any position and verifying that this register is pegged.

Register DIRASST release history

DIRASST was introduced in NA006.

Associated registers

None

OM group TOPSTRAF (continued)

Associated logs

None

Extension registers

None

Register FLTFL

Float failure

FLTFL is incremented when an operator attempts to float a call but is unable to release the three-port conference circuit because of network blockage.

The call is left in the talking state with the three-port conference circuit attached. The operator is released to handle another call.

Register FLTFL release history

FLTFL was introduced prior to BCS20.

Associated registers

OPRFLT is incremented when an operator floats a call by pressing the position release (POSRLS) key.

Associated logs

None

Extension registers

None

Register GENASST

General assistance request

GENASST is used to track how many requests have been processed for general assistance. It is pegged every time any operator makes a valid request for general assistance. This is true regardless of the specific keying sequence that a position requires to invoke general assistance.

GENASST can be tested by requesting general assistance on any position and verifying that this register is pegged.

Register GENASST release history

GENASST was introduced in NA006.

Associated registers

None

Associated logs

None

Extension registers

None

Register OPRFLT

Operator float

OPRFLT is incremented when an operator floats a call by pressing the POSRLS key. The POSRLS key performs the following functions:

- establishes a direct connection between the calling and called parties
- releases the three-port conference circuit that connects the calling and called parties to the operator

Register OPRFLT release history

OPRFLT was introduced prior to BCS20.

Associated registers

FLTFL is incremented when an operator attempts to float a call but is unable to release the three-port conference circuit because of network blockage.

Associated logs

None

Extension registers

None

Register RLSFWD

Release forward

RLSFWD is incremented when a TOPS operator drops the forward connection to a called party by pressing the forward release RLSFWD key on a TOPS keyboard.

The RLSFWD key releases all trunks that are used to establish the connection to a called party but maintains the connection between the calling party and the TOPS operator.

OM group TOPSTRAF (continued)

Register RLSFWD release history

RLSFWD was introduced in BCS20.

Associated registers

None

Associated logs

None

Extension registers

None

Register SPLVRFY

Special verify

SPLVRFY is incremented when an operator successfully invokes the Special Verify feature. This feature cannot be invoked if the special number is invalid or the forward port is not free.

Register SPLVRFY release history

SPLVRFY was introduced in BCS27.

Associated registers

None

Associated logs

None

Extension registers

None

Register TOPSANN

TOPS announcement

TOPSANN is incremented when an incoming TOPS call is connected to an announcement.

TOPSANN is not incremented when a TOPS call is connected to a digital recorded announcement machine (DRAM) announcement.

Register TOPSANN release history

TOPSANN was introduced in BCS21.

Associated registers

None

Associated logs

None

Extension registers

None

Register TOPSCAN

TOPS call canceled

TOPSCAN is incremented when a call that is connected to a TOPS position is cancelled by the operator before completion of the functions normally performed for this type of call.

Register TOPSCAN release history

TOPSCAN was introduced in BCS21.

Associated registers

None

Associated logs

None

Extension registers

None

Register TOPSNIN

TOPS number of incoming calls

TOPSNIN is incremented when an incoming call requiring operator service is received at a TOPS switch. TOPSNIN is incremented by incoming line and trunk originations.

Register TOPSNIN release history

TOPSNIN was introduced in BCS21.

BCS34

The equation for register TOPSNIN in stand-alone and TOPS OC host offices is changed. It follows the associated registers for the register TOPSNIN.

OM group TOPSTRAF (continued)

Associated registers

CDACTS_ACTSABN is incremented when a call is abandoned while connected to an initial digital recorded announcement machine (DRAM) message.

CDACTS_ACTSSUCC is incremented when an automatic coin toll saver (ACTS) call is successfully completed.

CDMCCS_MCCSATT is incremented when an incoming caller receives mechanized call card service (MCCS) from a TOPS operator after dialing zero with additional digits.

CDMCCS_MCCSFAIL is incremented when initial MCCS service cannot be provided to a call because of a problems with a DRAM or tone receiver.

CDMCCS_MCCSOPR is incremented when a call is connected to a TOPS operator because of time-out or flash.

QMSACT_CALLARIV is incremented each time a TOPS application presents a call to the QMS call and agent manager (CAM).

TOPSOC_OCMCCS is incremented when a call requiring MCCS service that originates at a remote toll office is received at an OC host switch.

TOPSPSZ_IPSZ is incremented each time a newly originated call is connected to a TOPS position.

TOPSQMS_POSRQSTD is incremented each time the QMS CAM receives a request for an operator positon to serve a call.

TOPSQS_QABDN is incremented when a call is abandoned before being served by a TOPS operator.

TOPSQS_QDEFL is incremented when a call is deflected from a queue to a treatment because the deflect threshold is exceeded.

TOPSQS_QOVFL is incremented when a call is deflected from a queue to a treatment because the queue is full.

TOPSQS_QREQ is incremented when a call is deflected from a queue to an EMR4 treatment and then queued again.

VSNCOM_VSNATT is incremented each time the Digital Multiplex System (DMS) switch attempts to provide voice service node (VSN) application handling for eligible calls.

VSNCOM_VSNIDFL is incremented each time the DMS switch fails to provide initial VSN application handling for eligible calls. This event indicates an abnormal condition.

VSNCOM_VSNIVFL is incremented each time the DMS switch fails to provide initial VSN application handling for eligible calls. This event indicates a capacity limitation or a resource failure in the VSN.

VSNCOM_VSNNOVL is incremented each time the DMS switch fails to provide VSN application handling for eligible calls because no idle voice link can be found.

VSNCOM_VSNOPRB is incremented each time a VSN application call is routed to an operator during the back-end handling of the call.

VSNCOM_VSNOPRF is incremented each time a VSN application call is routed to an operator during the front-end handling of the call.

TOPSTRAF_TOPSNIN = CDMCCS_MCCSATT + CDACTS_ACTSSUCC + TOPSPSZ_IPSZ + TOPSQS_QDEFL + TOPSQS_QABDN + TOPSQS_QOVFL + CDACTS_ACTSABN + TOPSOC_OCMCCS + TOPSQMS_POSRQSTD + QMSACT_CALLARIV + VSNCOM_VSNATT - CDMCCS_MCCSFAIL - CDMCCS_MCCSOPR - TOPSQS_QREQ - VSNCOM_VSNIDFL - VSNCOM_VSNNOVL - VSNCOM_VSNIVFL - VSNCOM_VSNOPRF - VSNCOM_VSNOPRB

The preceding equation is only valid for TOPS stand-alone and TOPS OC host offices. It does not apply to TOPS OC remote offices.

Associated logs

None

Extension Registers

TOPSNIN2

Register TOPSTON

TOPS call to tone

TOPSTON is incremented when an incoming TOPS call receives a tone.

Register TOPSTON release history

TOPSTON was introduced in BCS21.

OM group TOPSTRAF (continued)

Associated registers

None

Associated logs

None

Extension registers

None

Register TOPSTRK

TOPS call to trunk

TOPSTRK is incremented when a direct connection is established between an incoming TOPS call and an outgoing trunk.

Register TOPSTRK release history

TOPSTRK was introduced in BCS21.

Associated registers

None

Associated logs

None

Extension registers

TOPSTRK2

Register XFRIC

Calls routed to an interexchange carrier

XFRIC is incremented when a TOPS operator routes a call to an interexchange carrier.

Register XFRIC release history

XFRIC was introduced in BCS22.

Associated registers

None

Associated logs

None

OM group TOPSTRAF (end)

Extension registers

None

OM group TOPSUSE

OM description

Traffic operator position system usage

TOPSUSE provides information on occupied TOPS positions, maintenance busy TOPS positions, and the volume of work handled by TOPS positions.

Release history

OM group TOPSUSE was introduced prior to BCS20.

BCS33

Registers POSOCC, WORKVOL, and POSMTCE can be converted from CCS to deci-erlangs prior to their display using the OMSHOW command on the ACTIVE class.

Registers

OM group TOPSUSE registers display on the MAP terminal as follows:

```
POSOCC          POSOCCO         WORKVOL         WORKVOLO
POSMTCE
```

Group structure

OM group TOPSUSE provides one tuple for each office.

Key field:
None

Info field:
None

Associated OM groups

None

Associated functional groups

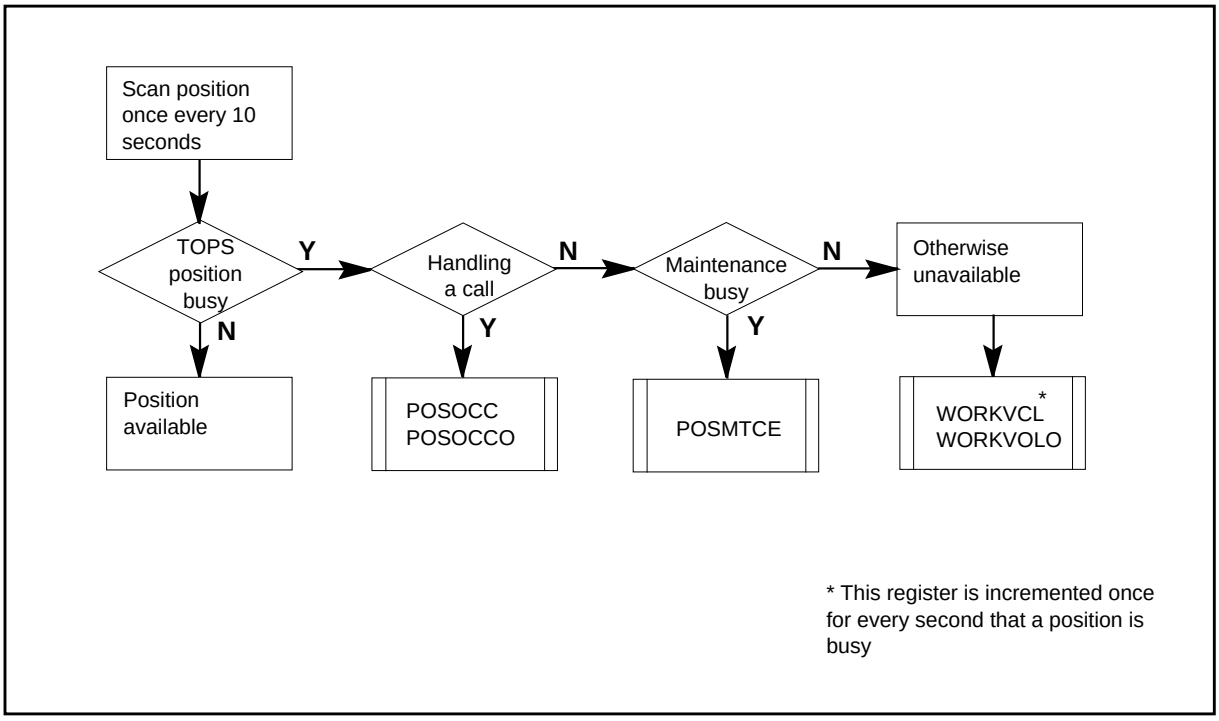
The TOPS functional group is associated with OM group TOPSUSE.

Associated functionality codes

The functionality codes associated with OM group TOPSUSE are shown in the following table.

Functionality	Code
TOPS Call Processing Features	NTX030CC
Host OC Data - Link Handling (for OC offices only)	NTX039AA

OM group TOPSUSE registers



Register POSMTCE

Position maintenance

POSMTCE is a usage register. The scan rate is fast: 10 seconds. POSMTCE records whether TOPS positions are maintenance busy.

OM group TOPSUSE (continued)

Register POSMTCE release history

POSMTCE was introduced prior to BCS20.

BCS33

When office parameter OMINERLANGS is set to Y, the usage count is converted from CCS to deci-erlangs prior to their display using the OMSHOW command on the ACTIVE class. The value held in the active registers is not altered and remains in CCS. CCS are also converted to deci-erlang before being transferred from ACTIVE to HOLDING and are held in deci-erlang in the HOLDING class.

Associated registers

None

Associated logs

None

Extension registers

None

Register POSOCC

Position occupancy

POSOCC is a usage register. The scan rate is fast: 10 seconds. POSOCC records whether TOPS positions are handling incoming TOPS calls.

Register POSOCC release history

POSOCC and POSOCCO were introduced prior to BCS20.

BCS33

When office parameter OMINERLANGS is set to Y, the usage count is converted from CCS to deci-erlangs prior to their display using the OMSHOW command on the ACTIVE class. The value held in the active registers is not altered and remains in CCS. CCS are also converted to deci-erlang before being transferred from ACTIVE to HOLDING and are held in deci-erlang in the HOLDING class.

Associated registers

None

Associated logs

None

Extension registers

POSOCCO

Register WORKVOL

Work volume

WORKVOL is incremented when a TOPS position is handling a call or is otherwise unavailable to handle a new call.

WORKVOL is incremented once for every second a position is handling a call.

Register WORKVOL release history

WORKVOL and WORKVOLO were introduced prior to BCS20.

Associated registers

None

Associated logs

None

Extension registers

WORKVOLO

OM group TOPSVC

OM description

Traffic operator position system (TOPS) virtual circuit

TOPSVC counts the following:

- attempts to obtain a virtual circuit
- failures to obtain a virtual circuit
- attempts to obtain a virtual circuit that are deflected because no virtual circuits are available
- the number of messages sent by a virtual circuit

Release history

OM group TOPSVC was introduced prior to BCS20.

BCS32

Registers TMSGLOST and TOPRLOST moved from OM group TOPSMISC and renamed MSGLOST and OPRLOST respectively. Group indexed by every switch that is datafilled in table OCOFC.

Registers

OM group TOPSVC registers display on the MAP terminal as follows:

VCATT	VCFL	VCNMSG	VCDEF
MSGLOST	OPRLOST		

Group structure

OM group TOPSVC provides one tuple for each office.

Key field:
None

Info field:
TOPS_OCINDEX_REGISTERINFO

Associated OM groups

None

Associated functional groups

The TOPS Traffic Operator Position System functional group is associated with OM group TOPSVC.

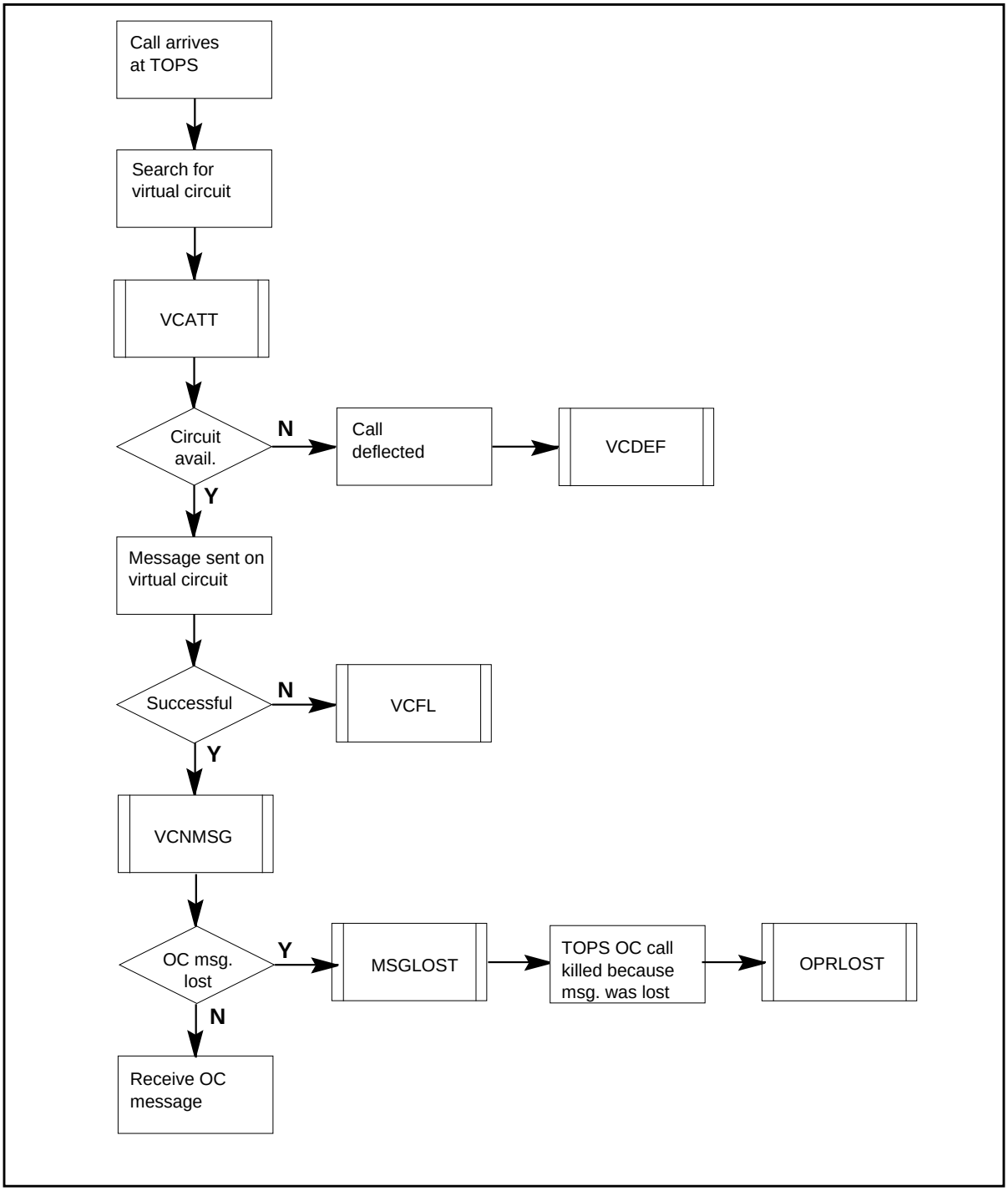
Associated functionality codes

The functionality codes associated with OM group TOPSVC are shown in the following table.

Functionality	Code
TOPS Call Processing Features	NTX030CC
Host OC Data-Link Handling	NTX039AA

OM group TOPSVC (continued)

OM group TOPSVC registers



Register MSGLOST

Traffic operator position system (TOPS) message lost

MSGLOST is incremented when an expected TOPS operator centralization message is not received by the remote or host office during a TOPS operator centralization call. Lost messages that are not expected do not cause this register to be pegged.

See register OPRLOST for the relationship between registers MSGLOST and OPRLOST.

MSGLOST is available only in TOPS operator centralization offices. The register increments in both the host and remote TOPS offices.

Register MSGLOST release history

BCS32

MSGLOST (formerly called TMSGLOST) moved from OM group TOPSMISC.

Associated registers

None

Associated logs

TOPS102 is generated when a message arrives that is not expected.

Extension registers

None

Register OPRLOST

Traffic operator position system (TOPS) operator release lost

OPRLOST is incremented when a TOPS operator centralization call terminates in the host or remote because an expected message was not received by the host or remote and the loss was considered serious.

There is relationship between registers MSGLOST and OPRLOST according to two possible cases:

- If an expected TOPS OC message is not received in the host or remote and the loss is not considered serious enough to terminate the call, only register MSGLOST is pegged.
- If an expected TOPS OC message is not received in the host or remote and the loss is considered serious enough to terminate the call, both registers MSGLOST and OPRLOST are pegged.

OM group TOPSVC (continued)

Register OPRLOST is incremented in both the remote and host TOPS offices.

Register OPRLOST release history

BCS32

OPRLOST (formerly called TOPRLOST) moved from OM group TOPSMISC.

Associated registers

MSGLOST is incremented when a TOPS operator centralization message is not received by the remote or host office during a TOPS operator centralization call.

MSGLOST OPRLOST

Associated logs

TOP102TOPRLOST is incremented when a message arrives that is not expected, forcing the TOPS position to become system busy.

AUDT100 is generated when no starter is bound in for a central process selector and the default starter is used, which kills the call.

AUDT103 is generated when a call process is destroyed.

SWER is generated when either a software condition affecting normal operation of the OMs or its peripherals occurs, or a manual request from the LOGUTIL MAP level for a log trace is made.

Extension registers

None

Register VCATT

Virtual circuit attempts

VCATT counts attempts to obtain a virtual circuit.

Register VCATT release history

VCATT was introduced prior to BCS20.

Associated registers

None

Associated logs

None

Extension registers

None

Register VCDEF

Virtual circuit deflections

VCDEF is incremented when an attempt to obtain a virtual circuit is deflected because no virtual circuits are available.

Register VCDEF release history

VCDEF was introduced prior to BCS20.

Associated registers

None

Associated logs

TOPS107 is generated when TOPS-related equipment is not available.

Extension registers

None

Register VCFL

Virtual circuit failure

VCFL is incremented when a virtual circuit fails to send a message.

Register VCFL release history

VCFL was introduced prior to BCS20.

Associated registers

None

Associated logs

TOPS106 is generated when trouble is encountered in a TOPS procedure.

Extension registers

None

Register VCNMSG

Virtual circuit number of messages

VCNMSG is incremented when a virtual circuit sends a message.

OM group TOPSVC (end)

Register VCNMSG release history

VCNMSG was introduced prior to BCS20.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TOPSPSZ

OM description

Traffic operation position system position seizures

TOPSPSZ provides information about calls made to operators at traffic operator position system (TOPS) positions.

The following types of calls are counted:

- originated calls
- reconnected calls (recalls)

The data supplied by TOPSPSZ is used to monitor TOPS operator traffic.

ATTENTION: This OM group is not pegged, starting with release TOPS12 and will be deleted in release TOPS14 due to the end of life (EOL) of TOPS IV terminals. by feature 59012553 in functionality Code Removal of TOPS IV, OSB00001.

OM group TRA125M1

OM Description

Traffic route analysis 125 measurements 1 (TRA125M1)

The OM group TRA125M1 provides information about line use, and counts originations and terminations on selected subscriber lines or groups of lines.

Table TRA125I1 specifies monitored lines. The table holds a maximum of 125 entries. The subscriber line usage (SLU) option is added to a line through SERVORD. The SLUADD command adds the line to table TRAI25I1. When a user gives the SLU_INSTALL command, the system copies the contents of table TRA125I1 into TRA125M1.

New entries can be added to table TRA125I1 while group TRA125M1 monitors the lines that the table first specified. The new entries do not affect the group until the user gives the SLU_INSTALL command.

Release history

The OM group TRA125M1 was introduced before BCS20.

NA006

This release added OM register BUSY2.

CSP04

This release redefined registers TBU, ORIG, and TERM as TBU2, ORIG2, and TERM2 to eliminate dual use of OM register names.

BCS33

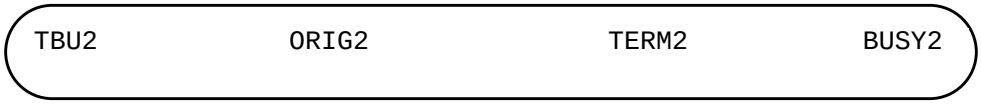
The OMSHOW command on the ACTIVE class can change Register TBU from CCS to deci-erlangs before display.

BCS31

Registers increase on SL-100 for intelligent peripheral equipment (IPE).

Registers

The OM group TRA125M1 registers appear on the MAP terminal as follows:



Group structure

The OM group TRA125M1 provides one tuple for each line specified in table TRA125I1.

Key field:
There is no key field.

Info field:
SLU_OM_INFO

Number of tuples:
1-125. The number of tuples depends on the number of lines under study

To activate the SLU feature, set parameter OPTIONAL_SLU_FEATURE in table OFCOPT to Y (yes). The SLU feature is enabled in tables LENFEAT, IBNFEAT, and KSETFEAT.

Associated OM groups

Groups ENG640M1, TRA125M2, and TRA250M1 provide information about line use and count originations and terminations on selected or groups of subscriber lines.

Associated functional groups

The Meridian SL-100 PBX functional group associates with OM group TRA125M1.

Associated functionality codes

The associated functionality codes for OM group TRA125M1 appear in the following table.

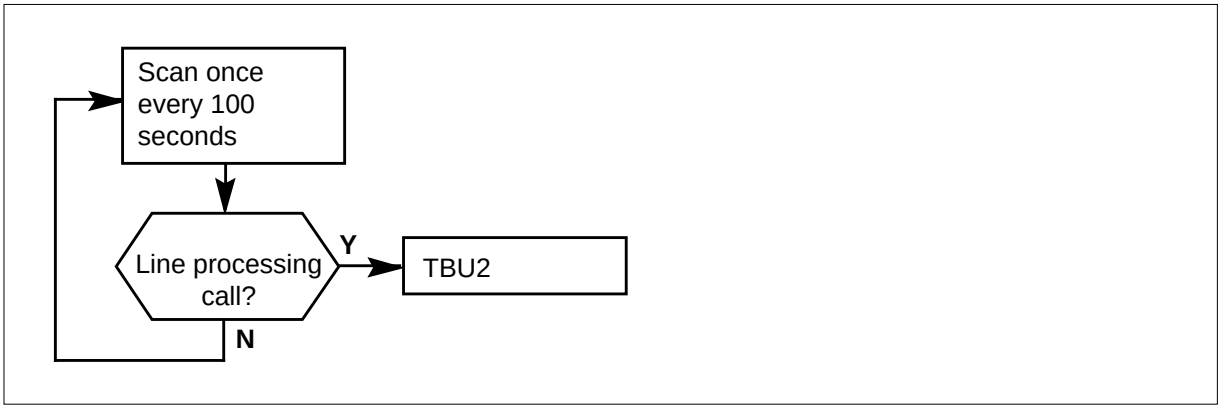
Functionality	Code
Extended Peripheral Equipment	NTXN25AA
Subscriber Line Measurements	NTX082AA
IBN Proprietary Business Set. This functionality allows SLU to be assigned to any business set directory number appearance. SLU is not available on business set multiple appearance directory number (MADN) secondary directory appearances.	NTX106AA

OM group TRA125M1 (continued)

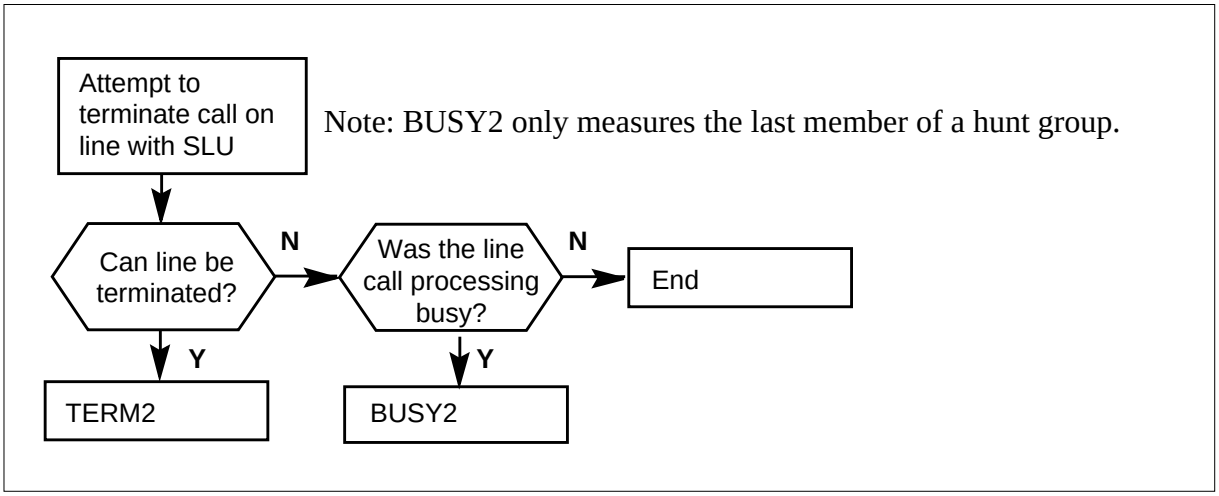
OM group TRA125M1 originating calls registers

OM group TRA125M1 terminating calls registers

OM group TRA125M1 usage registers



OM group TRA125M1 call processing busy registers



Register TBU2

Traffic busy use (TBU2)

Register TBU2 is a usage register. Parameter TRA125M1_SCAN_RATE in table OFCVAR specifies the scan rate. Register TBU2 records if a line processes calls.

The default value of parameter TRA125M1_SCAN_RATE is 100 s.

Register TBU2 release history

Register TBU was introduced before BCS20.

OM group TRA125M1 (continued)

CSP04
This release described register TBU as TBU2 to eliminate double use of OM register names.

BCS33
When office parameter OMINERLANGS is set to Y, the usage count changes from CCS to deci-erlangs before the count display. The OMSHOW command on the ACTIVE class converts the usage count. The value in the active registers does not change and remains in CCS.

BCS31
The TBU increased on SL-100 for IPE.

Associated registers
There are no associated registers.

Associated logs
There are no associated logs.

Extension registers
There are no extension registers.

Register ORIG2
Originations (ORIG2)

Register ORIG2 increases when a subscriber with the SLU option attempts to originate a call and the system connects dial tone.

If the switch can identify which party of two- and four-party lines tries to call, the register increases one time. If the switch cannot identify the party, the register counts each directory number on the line.

Register ORIG2 release history
Register ORIG was introduced before BCS20.

CSP04
This release redefined register ORIG as ORIG2 to eliminate double use of OM register names.

BCS31
Register ORIG increased on SL-100 for IPE.

Associated registers
There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TERM2

Terminations (TERM2)

Register TERM2 increases when a call terminates to a line with the SLU option and ringing tone begins.

Register TERM2 does not count calls within the same hunt group or the same equivalent group.

Register TERM2 release history

Register TERM was introduced BCS20.

CSP04

This release redefined register TERM as TERM2 to eliminate double use of OM register names.

BCS31

Register TERM increased on SL-100 for IPE.

Associated registers

For a hunt group with the SLU option associated with all the lines:
HUNT_HUNTATT - HUNT_HUNTOVFL = TERM2

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register BUSY2

Call Processing Busy - termination attempt failed (BUSY2)

This register counts calls that cannot terminate to a line because the line is in a CPB state. For lines that are part of a hunt group, register BUSY2 measures only the last member of the hunt group.

OM group TRA125M1 (end)

Register BUSY2 release history

NA006

Register BUSY2 was introduced in NA006.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group TRA125M2

OM description

Traffic Route Analysis 125 Measurements 2 (TRA125M2)

The OM group TRA125M2 provides information about line use and counts originations and terminations on selected or groups of subscriber lines.

Table TRA125I2 specifies the monitored lines. The table holds a maximum of 125 entries. The subscriber line usage (SLU) option is added to a line through SERVORD. The SLUADD command adds the line to table TRA125I2. The user gives the SLU_INSTALL command, the system copies the contents of table TRA125I2 into TRA125M2.

New entries can be added to table TRA125I2 while group TRA125M2 monitors the lines that the table first specified. The new entries do not affect the group until the SLU_INSTALL command.

Release history

The OM group TRA125M2 was introduced before BCS20.

NA006

This release added OM register BUSY3.

CSP04

This release redefined registers TBU, ORIG, and TERM as TBU3, ORIG3, and TERM3 to eliminate double use of OM register names.

BCS33

The OMSHOW command on the ACTIVE class can change register TBU from CCS to deci-erlangs before display.

BCS31

Registers increase on SL-100 for intelligent peripheral equipment (IPE).

Registers

The OM group TRA125M2 registers appear on the MAP terminal as follows:

```
TBU3            ORIG3              TERM3            BUSY3
```

OM group TRA125M2 (continued)

Group structure

The OM group TRA125M2 provides one tuple for each line specified in table TRA125I2.

Key field:
There is no key field.

Info field:
SLU_OM_INFO

Number of tuples:
1-125. The number of tuples depends on the number of lines under study

To activate the SLU feature, set parameter OPTIONAL_SLU_FEATURE in table OFCOPT to Y (yes). The SLU feature is enabled in tables LENFEAT, IBNFEAT, and KSETFEAT.

Associated OM groups

Registers ENG640M1, TRA125M1, and TRA250M1 provide information about line use and count originations and terminations on selected or groups of subscriber lines.

Associated functional groups

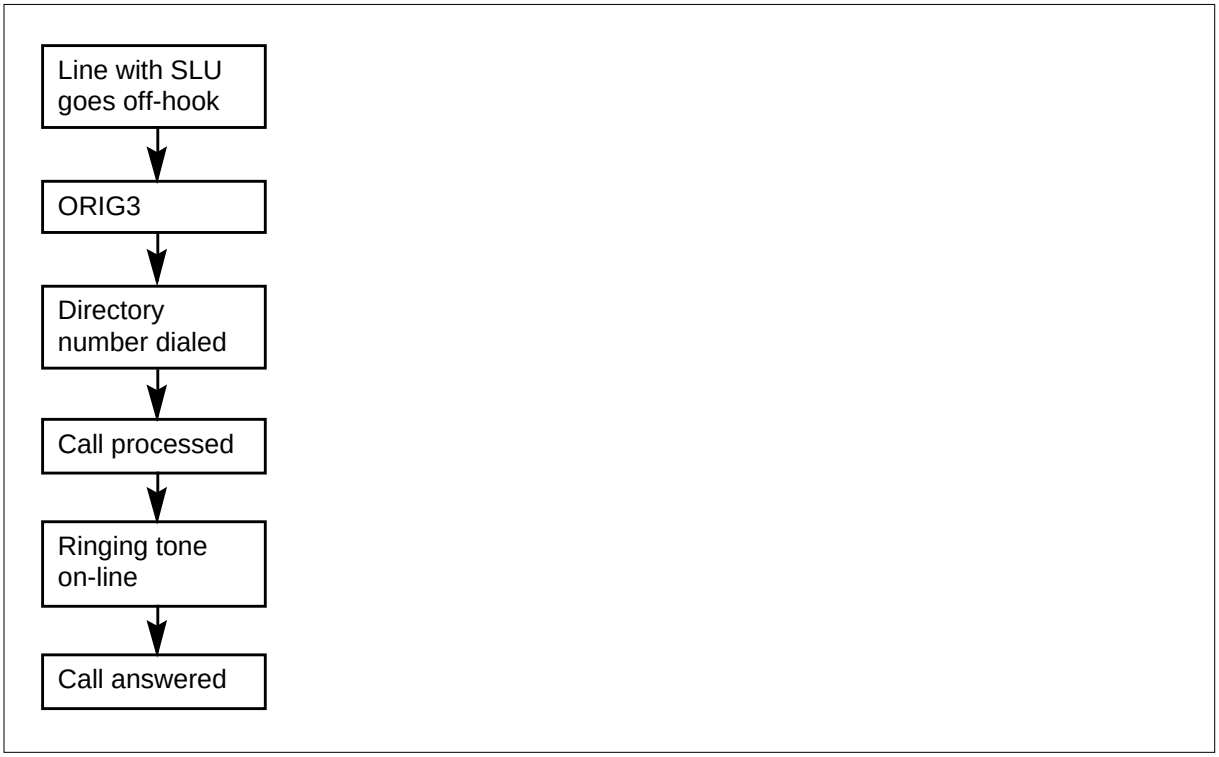
The Meridian SL-100 PBX functional group associates with OM group TRA125M2.

Associated functionality codes

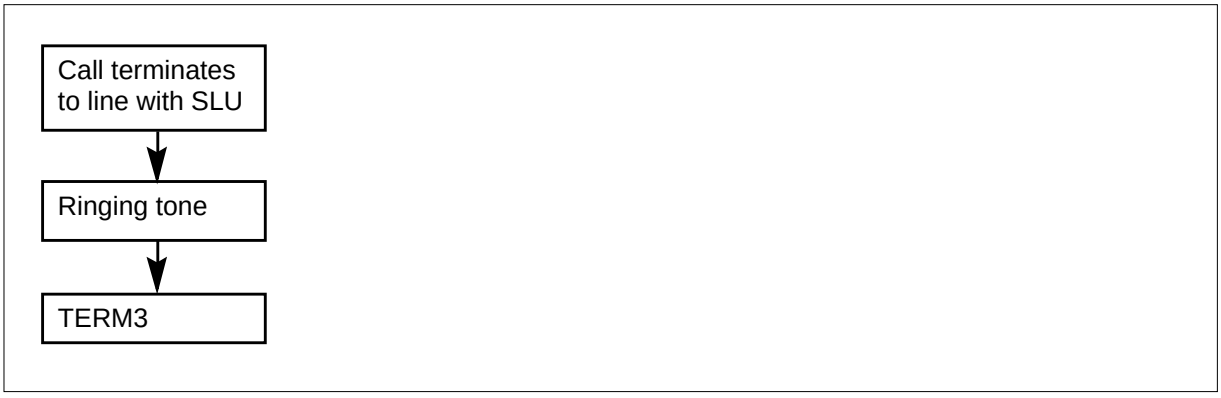
The associated functionality codes for OM group TRA125M2 appear in the following table.

Functionality	Code
Extended Peripheral Equipment	NTXN25AA
Subscriber Line Measurements	NTX082AA
IBN Proprietary Business Set. This functionality allows SLU to be assigned to any business set directory number appearance. SLU is not available on business set multiple appearance directory number (MADN) secondary directory appearances.	NTX106AA

OM group TRA125M2 originating calls registers

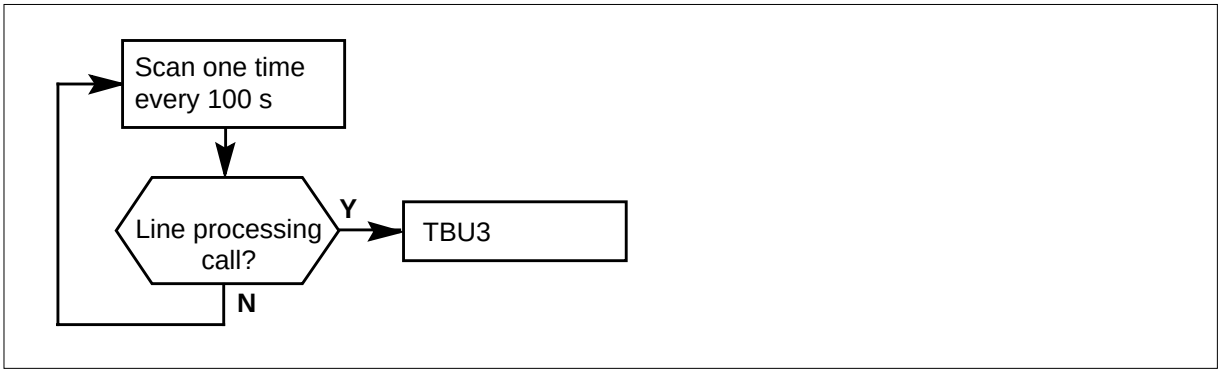


OM group TRA125M2 terminating calls registers

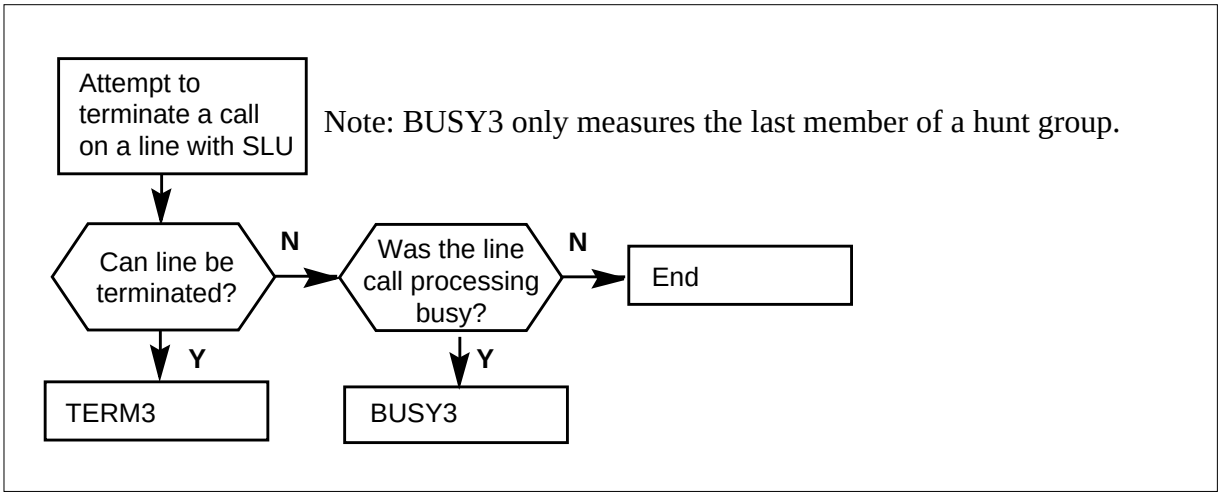


OM group TRA125M2 (continued)

OM group TRA125M2 use registers



OM group TRA125M2 call processing busy registers



Register TBU3

Traffic busy usage (TBU3)

Register TBU3 is a use register. Parameter TRA125M2_SCAN_RATE in table OFCVAR specifies the scan rate. Register TBU3 records when a line is processing calls.

The default value of parameter TRA125M2_SCAN_RATE is 100 s.

Register TBU3 release history

Register TBU3 was introduced before BCS20.

CSP04

This release redefines register TBU as TBU3 to eliminate double use of OM register names.

BCS33

When office parameter OMINERLANGS is set to Y, the usage count changes from CCS to deci-erlangs before the count displays. The OMSHOW command on the ACTIVE class converts the usage counts. The value held in the active registers does not change and remains in CCS.

BCS31

Register TBU increases on SL-100 for IPE.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register ORIG3

Originations (ORIG3)

Register ORIG3 increases when a subscriber with the SLU option attempts to originate a call and the system connects dial tone.

If the switch can identify which party of two- and four-party lines made the call attempt, the register increases only one time. If the switch cannot identify the party, the register counts each directory number on the line.

Register ORIG3 release history

Register ORIG was introduced before BCS20.

CSP04

This release redefined register ORIG as ORIG3 to eliminate double use of OM register names.

BCS31

Register ORIG increased on SL-100 for IPE.

Associated registers

There are no associated registers.

OM group TRA125M2 (continued)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TERM3

Terminations (TERM3)

Register TERM3 increases when a call terminates to a line with the subscriber line usage (SLU) option and a ringing tone begins.

Register TERM3 does not count calls within the same hunt group or the same equivalent group.

Register TERM3 release history

Register TERM was introduced before BCS20.

CSP04

This release redefined register TERM as TERM3 to eliminate double use of OM register names.

BCS31

Register TERM increases on SL-100 for IPE.

Associated registers

For a hunt group with the SLU option associated with all the lines:
HUNT_HUNTATT - HUNT_HUNTOVFL = TERM3

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register BUSY3

Call Processing Busy - termination attempt failed (BUSY3)

Register BUSY3 counts calls that cannot terminate to a line because the line is in a CPB state. For lines that are part of a hunt group, register BUSY3 measures only the last member of the hunt group.

Register BUSY3 release history

NA006

Register BUSY3 was introduced in BUSY3.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group TRA250M1

OM Descriptions

Traffic Route Analysis 250 Measurements 1

The OM group TRA250M1 provides information about line use and count originations and terminations on selected subscriber lines or groups of lines.

Table TRA250I1 specifies the monitored lines. The table holds a maximum of 250 entries. A SERVORD adds the subscriber line usage (SLU) option to a line. The SLUADD command adds the line to Table TRA250I1. The SLU_INSTALL command copies the contents of table TRA250I1 into TRA250M1.

The user can add new entries to table TRA250I1 while group TRA250M1 monitors the lines that the table originally specifies. The new entries do not affect the group until the user gives the SLU_INSTALL command.

Release history

The OM group TRA250M1 was introduced before BCS20.

NA006

This release added OM register BUSY1.

CSP04

This release defined Registers TBU, ORIG, and TERM as TBU1, ORIG1, and TERM1 to eliminate double use of OM register names.

BCS33

The OMSHOW command on the ACTIVE class can convert register TBU from CCS to deci-erlangs. The OMSHOW command converts register TBU before display.

BCS31

Current registers increased on SL-100 for intelligent peripheral equipment (IPE).

Registers

The OM group TRA250M1 registers appear on the MAP terminal as follows:

```
TBU1            ORIG1                TERM1            BUSY1
```

Group structure

The OM group TRA250M1 provides one tuple for each line specified in table TRA250I1.

Key field:
There is no key field.

Info field:
SLU_OM_INFO

Number of tuples:
1-250, depending on the number of lines under study

To activate the SLU feature, set parameter OPTIONAL_SLU_FEATURE in table OFCOPT to Y (yes). Tables LENFEAT, IBNFEAT, and KSETFEAT will have the SLU feature.

Associated OM groups

The OM groups ENG640M1, TRA125M2 and TRA125M1 provide information about line use and count originations and terminations. The OM groups provide information on selected subscriber lines or groups of lines.

Associated functional groups

The Meridian SL-100 PBX functional group associates with OM group TRA250M1.

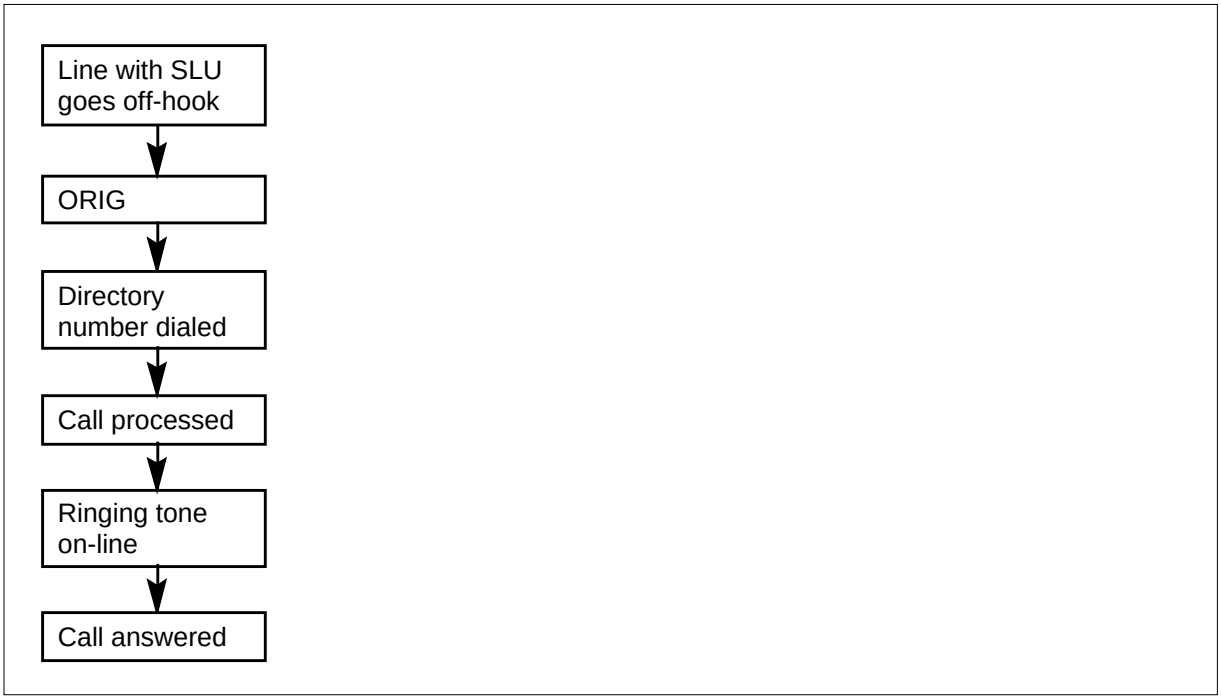
Associated functionality codes

The functionality codes associated with OM group TRA250M1 appear in the following table.

Functionality	Code
Extended Peripheral Equipment	NTXN25AA
Subscriber Line Measurements	NTX082AA
IBN Proprietary Business Set. This functionality allows the system to assign SLU to any business set directory number appearance. The SLU option is not available on business set multiple appearance directory number (MADN) secondary directory appearances.	NTX106AA

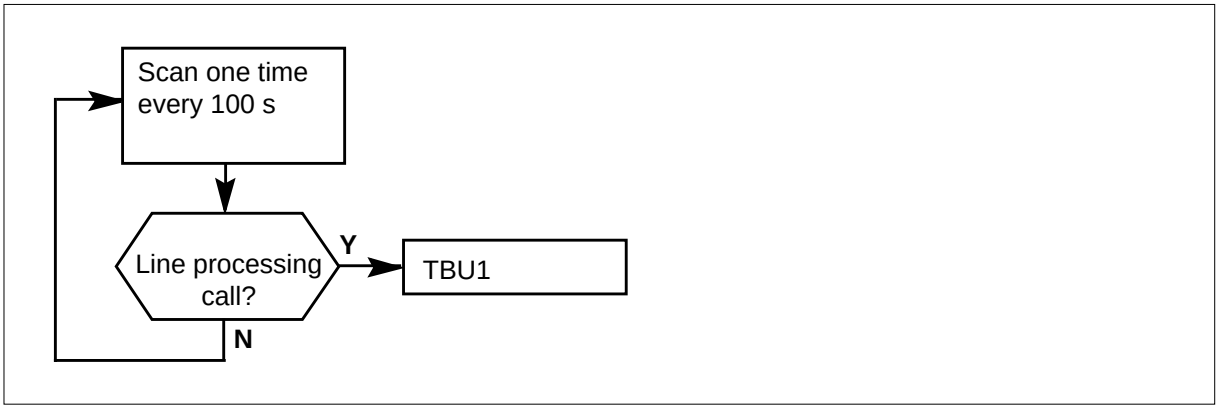
OM group TRA250M1 (continued)

OM group TRA250M1 originating calls registers

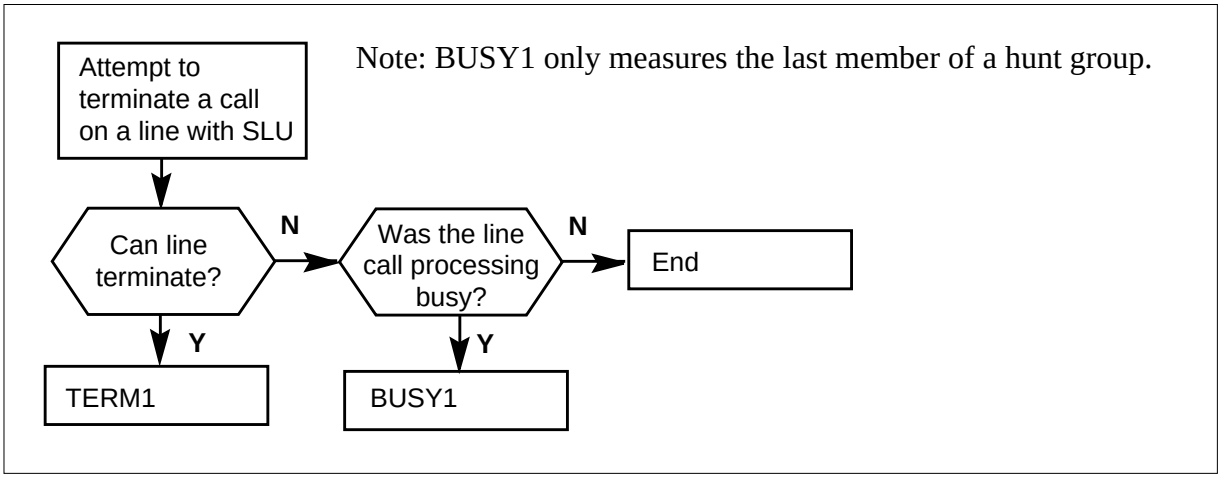


OM group TRA250M1 terminating calls registers

OM group TRA250M1 use registers



OM group TRA250M1 call processing busy registers



Note: BUSY1 only measures the last member of a hunt group.

Register TBU1

Traffic busy usage (TBU1)

Register TBU1 is a usage register. Parameter TRA250M1_SCAN_RATE in table OFCVAR specifies the scan rate. The TBU1 records when a line processes calls.

The default value of parameter TRA250M1_SCAN_RATE is 100 s.

Register TBU1 release history

Register TBU was introduced before BCS20.

OM group TRA250M1 (continued)

CSP04
This release describes register TBU as TBU1 to eliminate double use of OM register names.

BCS33
When office parameter OMINERLANGS is Y, the OMSHOW command on the ACTIVE class converts the use count from CCS to deci-erlangs. The use count converts before display. The value the active registers holds does not change. The value remains in CCS.

BCS31
Register TBU increases on SL-100 for IPE.

Associated registers
There are no associated registers.

Associated logs
There are no associated logs.

Extension registers
There are no extension registers.

Register ORIG1
Originations (ORIG1)

Register ORIG1 increases when a subscriber with the SLU option attempts to originate a call and a dial tone connects.

If the switch can identify which party of two- and four-party lines made the call attempt, the register increases once. If the switch cannot identify which party of two- and four-party lines made the call attempt, the register counts each directory number on the line.

Register ORIG1 release history
Register ORIG was introduced before BCS20.

CSP04
This release describes register ORIG as ORIG1 to eliminate use of OM register names.

BCS31
Register ORIG increased on SL-100 for IPE.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TERM1

Terminations (TERM1)

Register TERM1 increases when a call terminates to a line with the SLU and a ringing tone begins.

Register TERM1 does not count calls in the same hunt group or the same equivalent group.

Register TERM1 release history

Register TERM was introduced before BCS20.

CSP04

This release defined TERM as TERM1 to eliminate double use of OM register names.

BCS31

Register TERM increases on SL-100 for IPE.

Associated registers

For a hunt group with the SLU option associated with all the lines:
HUNT_HUNTATT - HUNT_HUNTOVFL = TERM1

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register BUSY1

Call Processing Busy - termination attempt failed

OM group TRA250M1 (end)

This register measures the number of calls the system cannot terminate to a line because the line is in a CPB state. For lines that are part of a hunt group, register BUSY1 measures only the last member of the hunt group.

Register BUSY1 release history

Register BUSY1 was introduced in NA006.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group TRK

OM description

Trunk group (TRK)

Register TRK provides information on trunk traffic for each trunk group.

The registers in TRK count the following:

- routing attempts
- seizure attempts
- seize failures
- total trunk use
- busy state use

The OM groups OFZ and OTS provide office-wide traffic summaries for trunks.

Release history

The OM group TRK was introduced before BCS20.

SN06 (DMS)

Added description of NOANSWER register and added OFF500 as a valid OFFICETYPE per CR Q00474492.

APC010

Feature AU2916, DCTS and Answer OM Enhancements, introduced registers INANSU, INANSWER, and OUTANSU.

NA009

Register NOANSWER was added.

GL04

Treatment was introduced to register section for DMS-100G.

The OFF100G Global was introduced to group and associated functional group sections.

NA008

The OM group OFFCOMBLWW was introduced as a value for office parameter OFFICETYPE. Register ACCCONG was introduced in NA008.

OM group TRK (continued)

EUR004

Register ANSWER increased for United Kingdom (UK) signaling on the European DMS-100 (DMS-100EUR) switch.

NA04B

Register ANSWER migrated from an IDC DMS-250 switch to a DMS-100 switch for trunk to trunk calls.

BCS35

Register DEFLDCA increases when the bidirectional trunk group reservation controls (BRC) network management trunk group control prevents a call from accessing the trunk group. The call cannot access the trunk group that the system routes the call to. Optional register Q33FLT added for DMS-300 switches.

BCS34

Registers ANSU and NANS were introduced in BCS34.

BCS33

You can convert registers DREU, PREU, TRU, SBU, MBU, TOTU, and TRU2WIN from CCS to deci-erlangs. Conversion must take place before the system displays the registers. The OMSHOW command on the ACTIVE class converts the registers.

BCS32

The ISDN User Part (ISUP) to Telephone User Part (TUP) Interworking feature increase the following registers:

- INCATOT
- INFAIL
- NATTMPT
- NOVFLATB
- GLARE
- OUTFAIL
- DEFLDCA
- TRU
- SBU
- MBU
- OUTMTCHF
- ANSWER

- INTRMLU
- INTRNSU
- OUTTRMLU
- OUTTRMSU

BCS31

Software changes allow this group to contain a maximum of 8192 tuples. Registers INFAIL, OUTFAIL, and GLARE increase for failed call attempts on DMS-300.

BCS29

Register TRU2WIN was introduced in DMS-250 offices.

BCS27

Registers BLKCTRK, MAXBU, TOTU were introduced in DMS-250 offices.

BCS26

To identify the trunk groups, the OM system uses the entries of the administrative number (ADNUM) field in table TRKNAME.

BCS25

Registers FCONG and FBUSY were introduced in BCS25.

BCS23

Register DEFLDCA increases for DMS-100 Family international switches.

BCS20

Software change was to provide introduced usage counts DREU, PREU, TRU, SBU, MBU, and TOTU in CCS or deci-erlangs. Registers INTRMLU, INTRSNU, OUTTRMLU, and OUTTRNSU changed from usage registers to peg registers that increase for each call.

Registers

The registers that appear at the MAP terminal depend on the type of office that the office parameter OFFICETYPE in table OFCSTD specifies.

The system generates the following registers in offices where OFFICETYPE is OFF100, OFF200, OFF500, OFFCOMB, OFFCOMBTOPS, OFF200TOPS, or OFFCOMBITOPS:

OM group TRK (continued)

INCATOT	PRERTEAB	INFAIL	NATTMPT
NOVFLATB	GLARE	OUTFAIL	DEFLDCA
DREU	PREU	TRU	SBU
MBU	OUTMTCHF	CONNECT	TANDEM
AOF	ANF	TOTU	ANSWER
ACCCONG	NOANSWER	INANSWER	OUTANSU
INANSU			

The system generates the following registers in offices where OFFICETYPE is OFF100, OFF200, OFF500, OFFCOMB, OFFCOMBTOPS, OFF200TOPS, or OFFCOMBITOPS:

INCATOT	PRERTEAB	INFAIL	NATTMPT
NOVFLATB	GLARE	OUTFAIL	DEFLDCA
DREU	PREU	TRU	SBU
MBU	OUTMTCHF	CONNECT	TANDEM
AOF	ANF	TOTU	ANSWER
ANSU	NANS	ACCCONG	

The system generates the following registers in offices where OFFICETYPE is OFF200300:

INCATOT	PRERTEAB	INFAIL	NATTMPT
NOVFLATB	GLARE	OUTFAIL	DEFLDCA
DREU	PREU	TRU	SBU
MBU	ANSWER	CONGEST	INTRMLU
INTRNSU	OUTTRMLU	OUTTRNSU	OUTMTCHF
CONNECT	TANDEM	AOF	ANF

The system generates the following registers in offices where OFFICETYPE is OFF300:

INCATOT	PRERTEAB	INFAIL	NATTMPT
NOVFLATB	GLARE	OUTFAIL	DEFLDCA
DREU	PREU	TRU	SBU
MBU	ANSWER	CONGEST	INTRMLU
INTRNSU	OUTTRMLU	OUTTRNSU	OUTMTCHF
CONNECT	TANDEM	FCONG	FBUSY
Q33FLT			

A DMS-MTX switch whose OFFICETYPE is OFFMTX100I outputs the same registers as OFF250. However, the interpretation of some of the registers in a DMS-MTX office differs. These registers are identified as DMS-MTX whenever applicable.

The following registers are generated in offices whose OFFICETYPE is OFFCOMBLWW, OFF250, OFFMTX100I,or OFF250IBN:

INCATOT	PRERTEAB	INFAIL	NATTMPT
NOVFLATB	GLARE	OUTFAIL	DEFLDCA
DREU	PREU	TRU	SBU
MBU	OUTMTCHF	CONNECT	TANDEM
AOF	ANF	TOTU	ANSWER
INVAUTH	BLKCTRK	MAXBU	TRU2WIN
NCTPASS	NCTFAIL		

Note: In office types OFF250, OFF250IBN, and OFFMTX100I, register NOANSWER is displayed but is not incremented.

The system generates the following registers in offices where OFFICETYPE is OFF100OESD:

INCATOT	PRERTEAB	INFAIL	NATTMPT
NOVFLATB	GLARE	OUTFAIL	DEFLDCA
DREU	PREU	TRU	SBU
MBU	OUTMTCHF	CONNECT	TANDEM
ANSWER	FV	FA	TOTU

The system generates the following registers in offices where OFFICETYPE is OFF200OESD or OFFCOMBOESD:

INCATOT	PRERTEAB	INFAIL	NATTMPT
NOVFLATB	GLARE	OUTFAIL	DEFLDCA
DREU	PREU	TRU	SBU
MBU	OUTMTCHF	CONNECT	TANDEM
ANSWER	MTRPULS	MTRPULS2	FV
FA	TOTU	CONVTIME	

The system generates the following registers in offices where OFFICETYPE is OFFCOMB300 or OFFCOMB300ITOPS:

OM group TRK (continued)

INCATOT	PRERTEAB	INFAIL	NATTMPT
NOVFLATB	GLARE	OUTFAIL	DEFLDCA
DREU	PREU	TRU	SBU
MBU	OUTMTCHF	CONNECT	TANDEM
AOF	ANF	TOTU	ANSWER
CONGEST	INTRMLU	INTRNSU	OUTTRMLU
OUTTRNSU	FCONG	FBUSY	

The system generates the following registers in offices where OFFICETYPE is OFFCOMBLWW:

INCATOT	PRERTEAB	INFAIL	NATTMPT
NOVFLATB	GLARE	OUTFAIL	DEFLDCA
DREU	PREU	TRU	SBU
MBU	OUTMTCHF	CONNECT	TANDEM
AOF	ANF	TOTU	ANSWER

Group structure

The OM group TRK provides one tuple for each trunk group.

Key field:
COMMON_LANGUAGE_NAME

Info field:
OM2TRKINFO has three parts: TRKDIR, NCCT,and NWCCT

The TRKDIR is the trunk group direction. The fixed TRKDIR for TRK are as follows:

- IC—incoming trunk
- OG—outgoing trunk
- 2W—two-way trunk

The NCCT is the total number of trunk circuits in the group.

The NWCCT is the number of trunk circuits available for service at the end of the reporting period.

You must datafill tables TRKNAME and OFCSTD.

You enter the administrative number in field AONUM in table TRKNAME. The administrative number associates with a trunk group.

The office parameter OFFICETYPE in table OFCSTD specifies the type of office. The value of OFFICETYPE controls the generation of TRK registers. Correct entries for OFFICETYPE appear below:

- OFF100 Local
- OFFCOMB Combined local/toll
- OFFCOMBLWW Combined local/toll with wireless
- OFFCOMBTOPS Combined local/toll with traffic operator position system (TOPS)
- OFF200 Toll
- OFF200TOPS Toll with TOPS
- OFF200300 Combined gateway/toll
- OFF250 DMS-250
- OFF300 Gateway
- OFF250IBN DMS-250/SL-100
- OFF500 DMS-500
- OFF100OESD Austrian local
- OFF200OESD Austrian toll
- OFFCOMBOESD Austrian combined local/toll
- OFFCOMBITOPS Combined local/toll with international TOPS (ITOPS)
- OFFMTX100I DMS-MTX with DMS-100I capabilities
- OFFCOMB300 Combined local/toll and gateway
- OFFCOMB300ITOPS Combined local/toll and gateway with ITOPS

The office type parameters appear in table OFCSTD.

When the system reports an answer indication to CM from the outgoing trunk, the OM Answer register for the outgoing trunk increases.

Associated OM groups

The OFZ provides information about calls based on the source of the call. This OM group also provides information about calls based on the intended destination of the call. This information is on an office-wide basis.

OM group TRK (continued)

The OTS provides information about calls based on the source of the call. This OM group also provides information about calls based on the intended destination of the call. This information is on an office-wide basis.

Associated functional groups

The following functional groups associate with OM group TRK:

- OFF100 Local
- OFFCOMB Combined local/toll
- OFFCOMBLWW Combined local/toll with wireless
- OFFCOMBTOPS Combined local/toll with TOPS
- OFF200 Toll
- OFF200TOPS Toll with TOPS
- OFF200300 Combined gateway/toll
- OFF300 Gateway
- OFF250 DMS-250
- OFF250IBN DMS-250/SL-100
- OFF100OESD Austrian local
- OFF200OESD Austrian toll
- OFFCOMBOESD Austrian combined local/toll

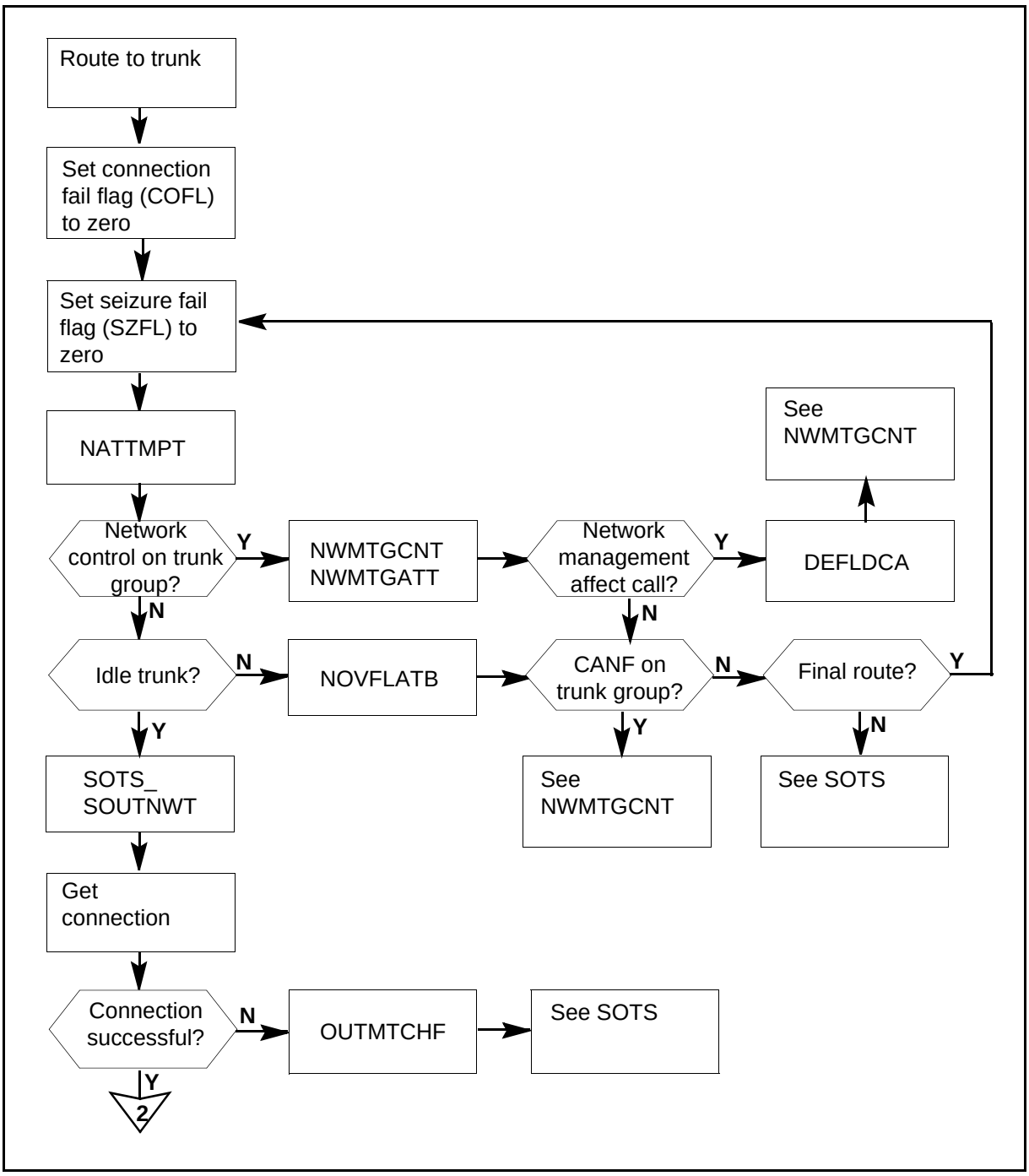
Associated functionality codes

The functionality codes for OM group TRK appear in the following table:

Functionality	Code
Common Basic	NTX001AA
DMS-250 Call Processing Type II	NTX222BA
International Switching Center (ISC) Basic	NTX300AA
OMS in Erlangs	NTX664AA
International Network Management	NTX669AA
ISC R2 Signaling	NTX905AA

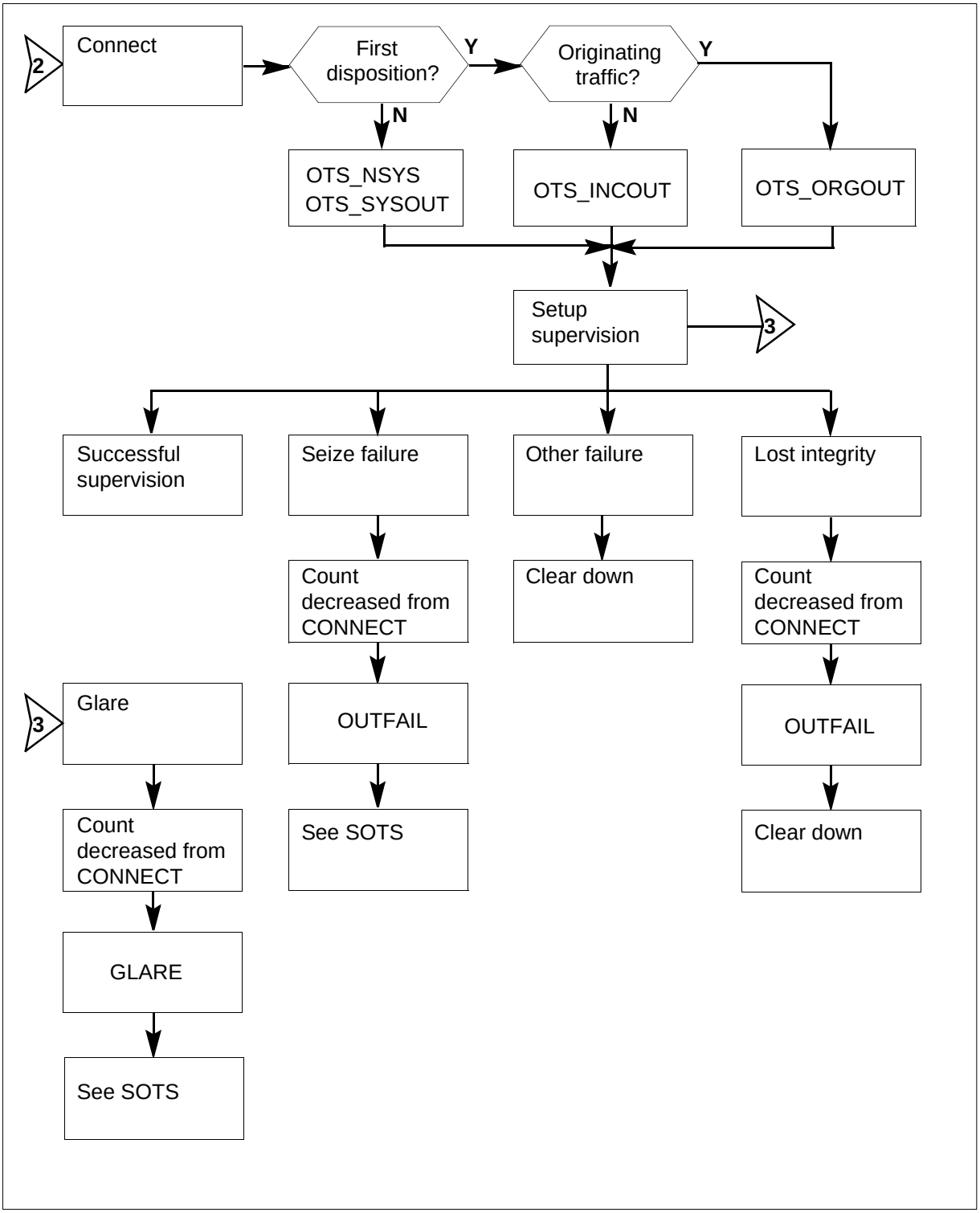
The following flowcharts illustrate OM group TRK registers.

OM group TRK registers: outgoing traffic

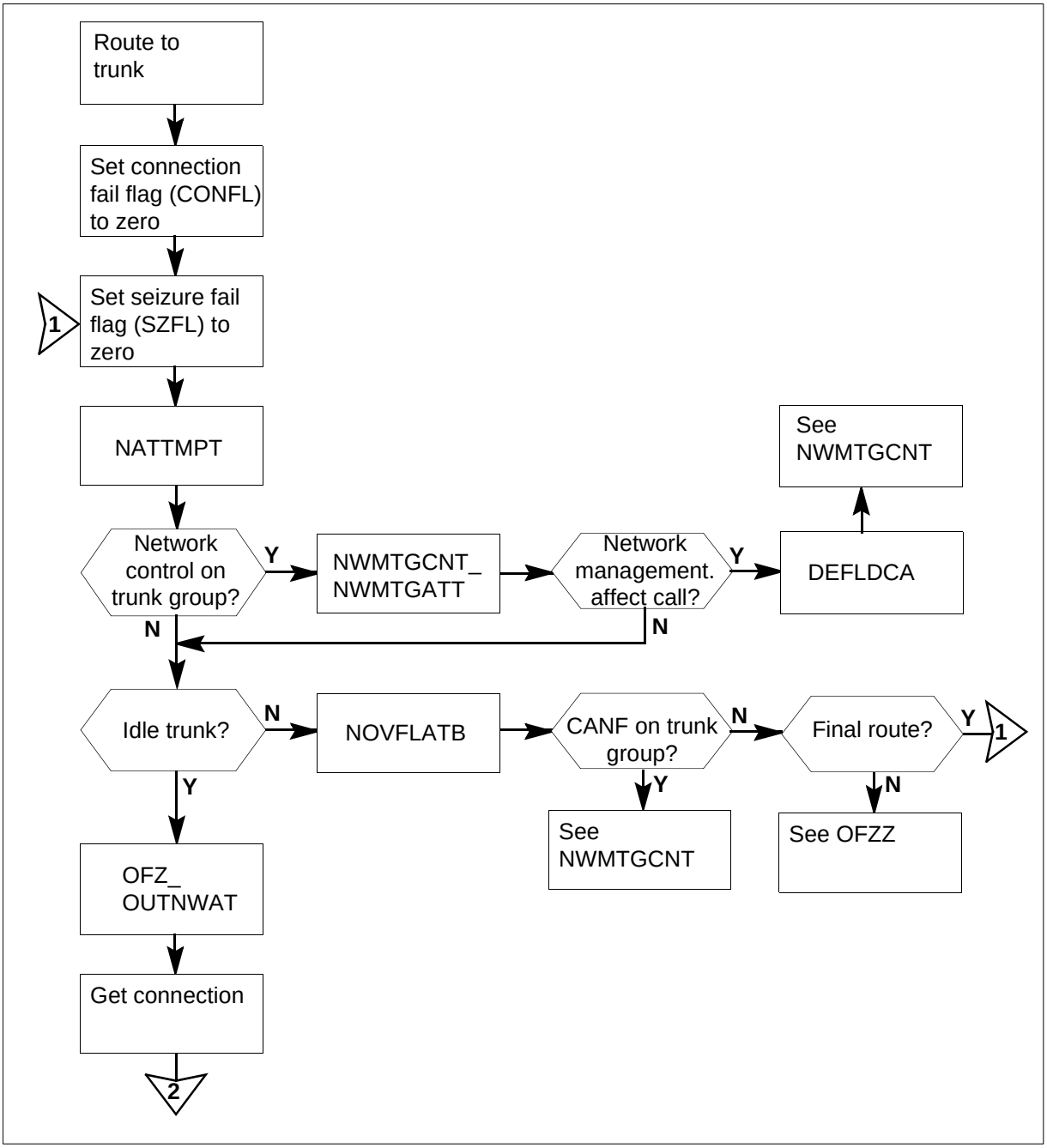


OM group TRK (continued)

OM group TRK registers: outgoing traffic (continued)

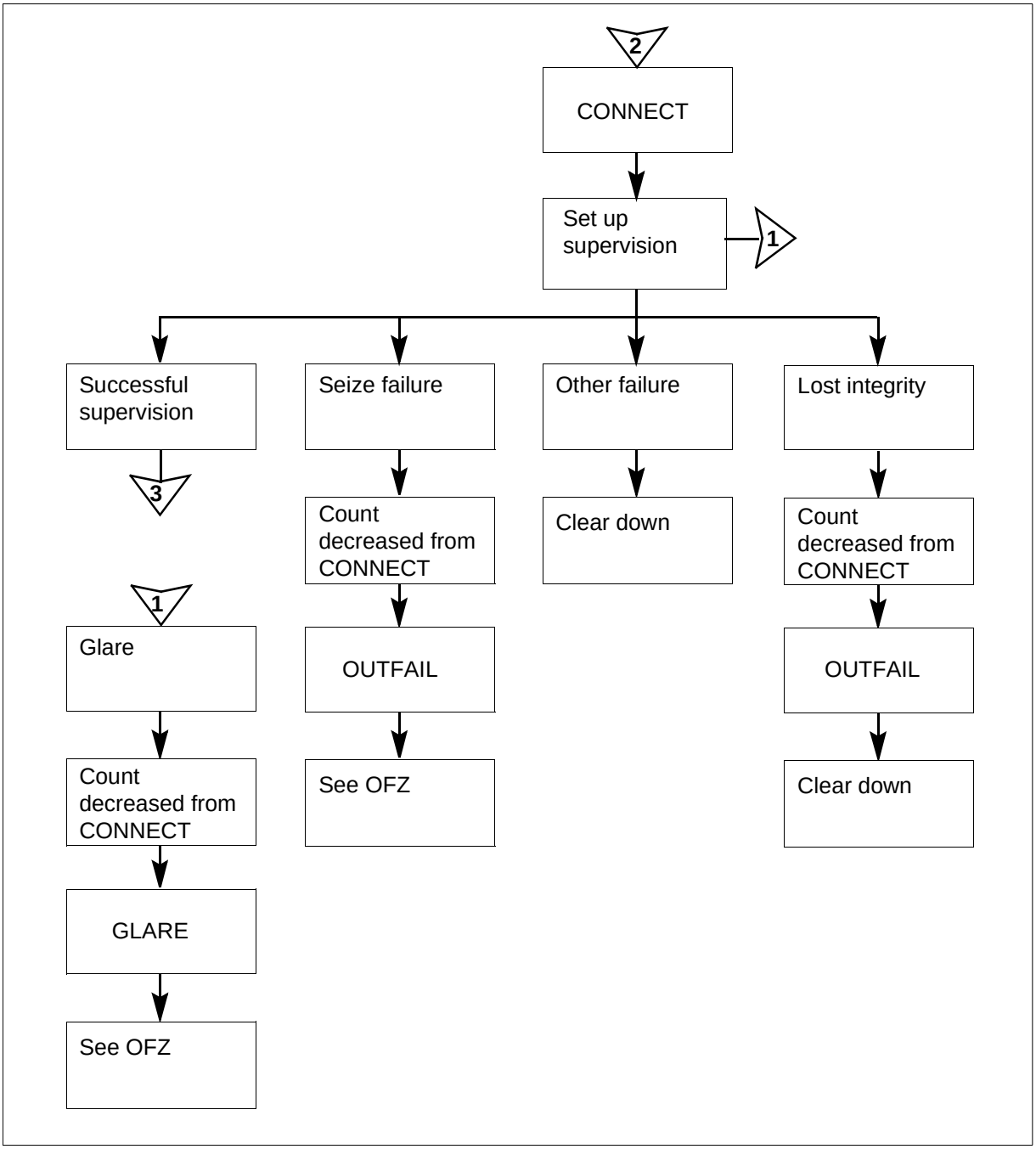


OM group TRK registers: trunk terminations

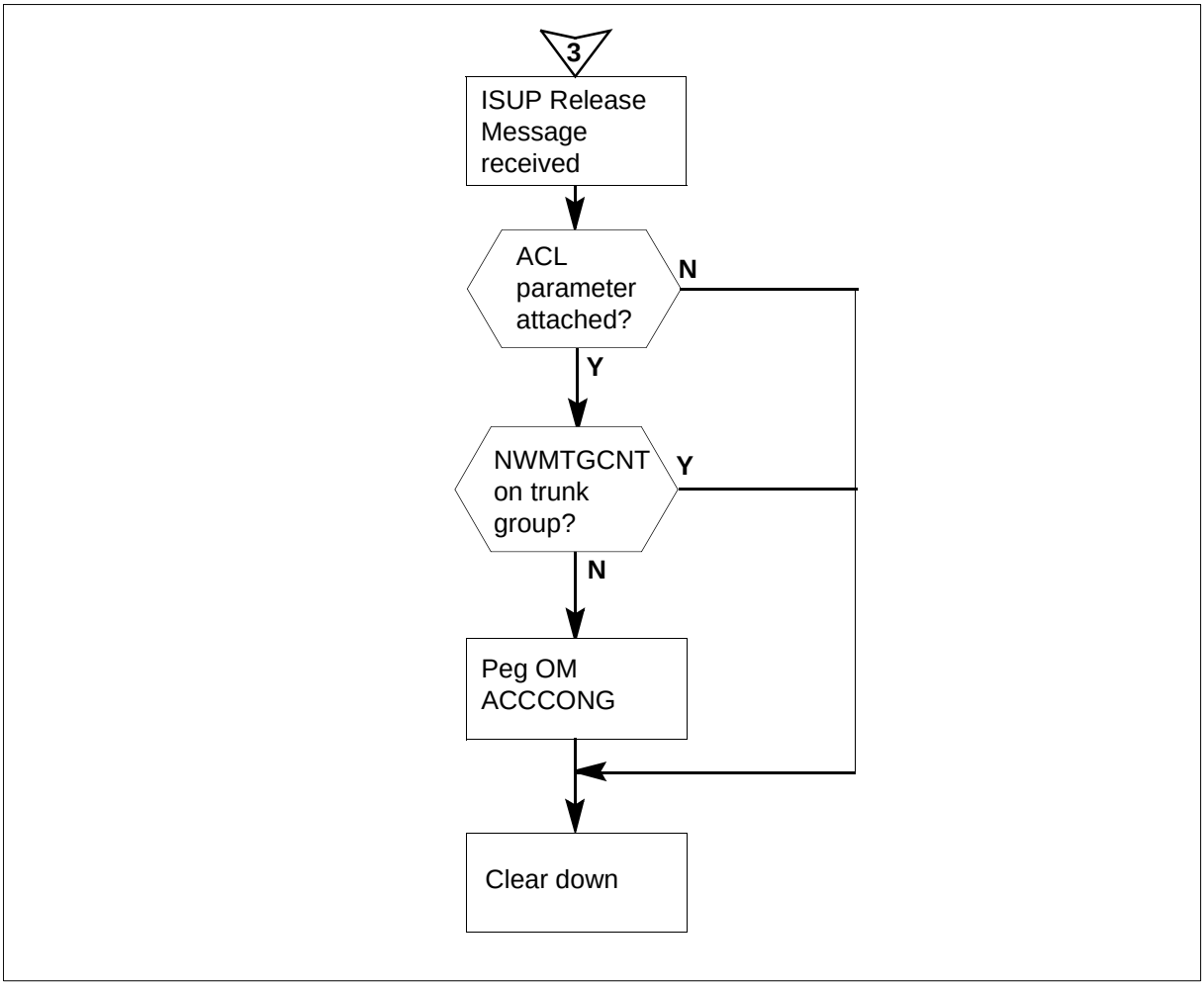


OM group TRK (continued)

OM group TRK registers: trunk terminations (continued)

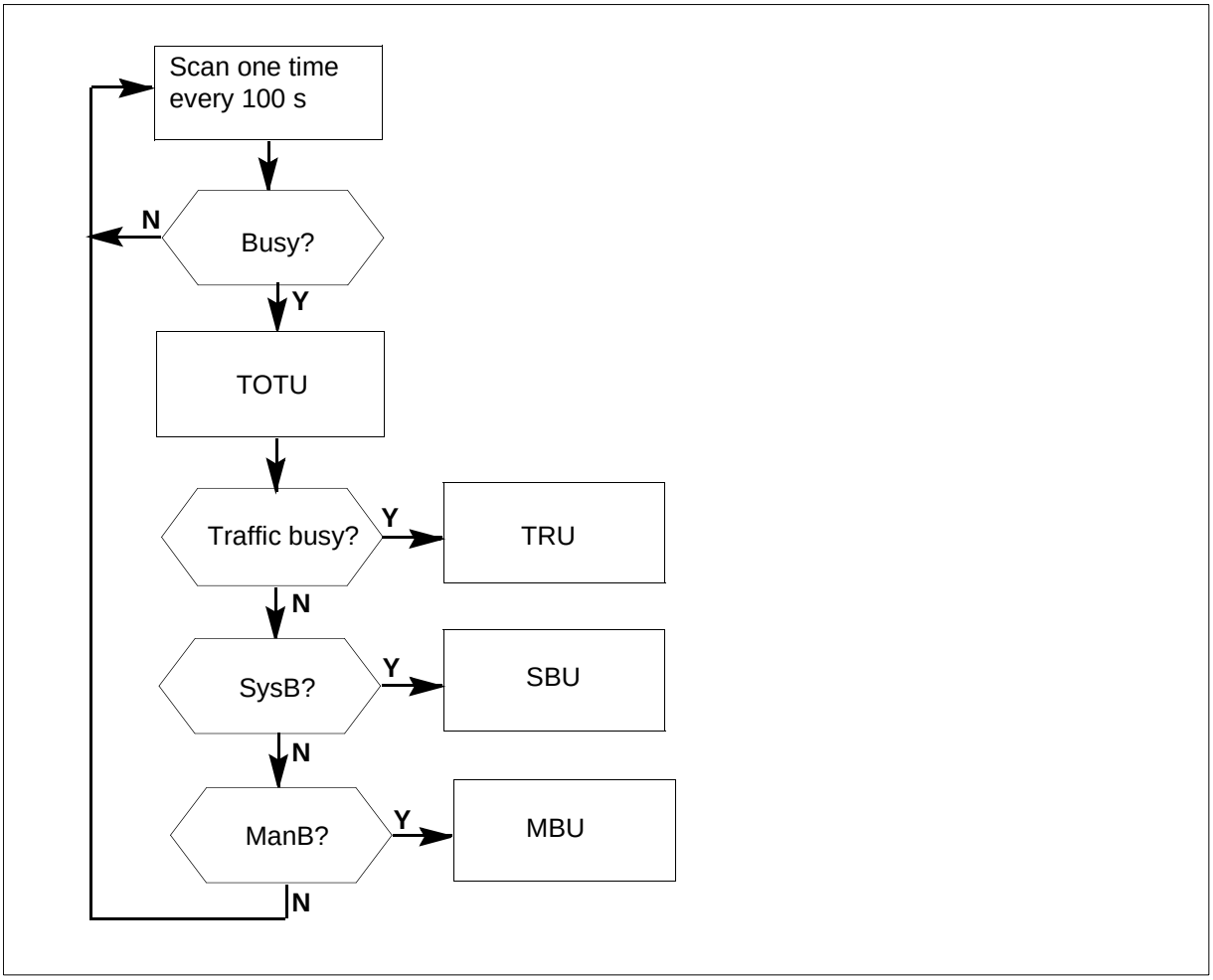


OM group TRK registers: trunk terminations (continued)

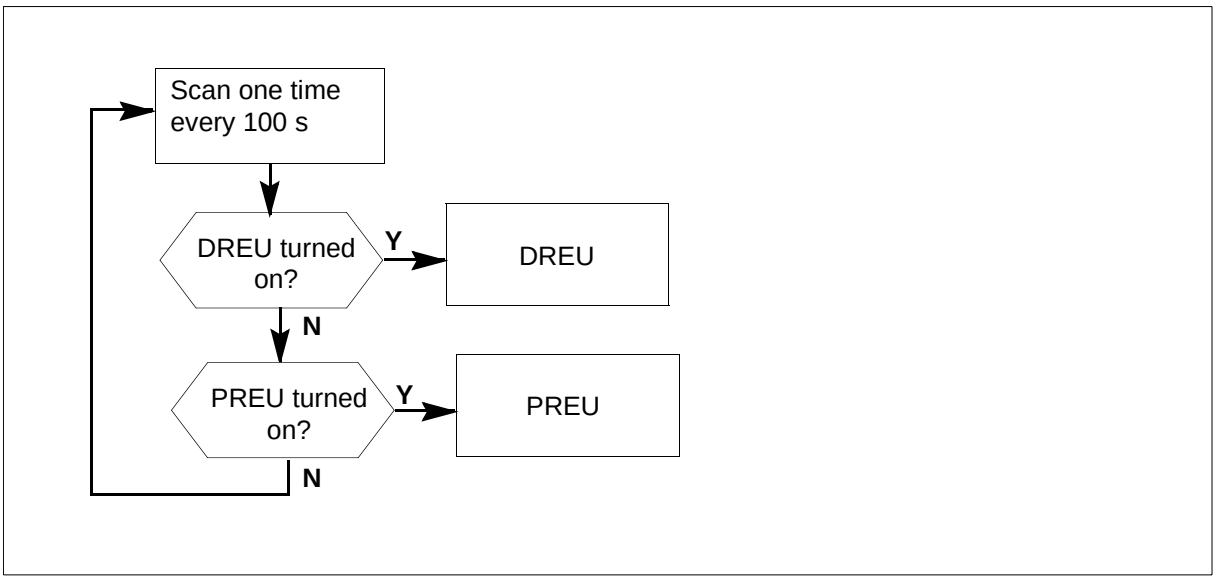


OM group TRK (continued)

OM group TRK busy usage registers

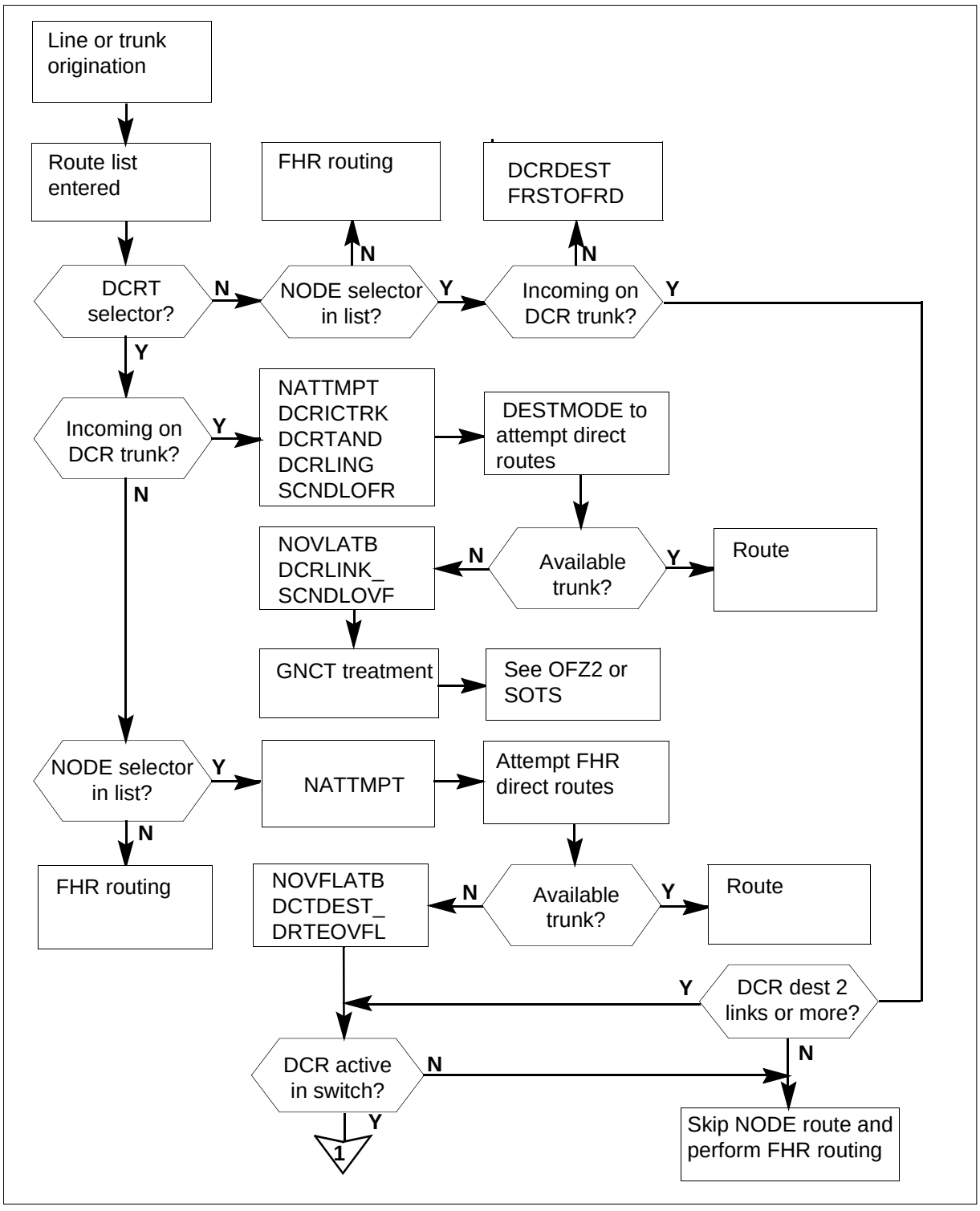


OM group TRK directional reservation usage registers



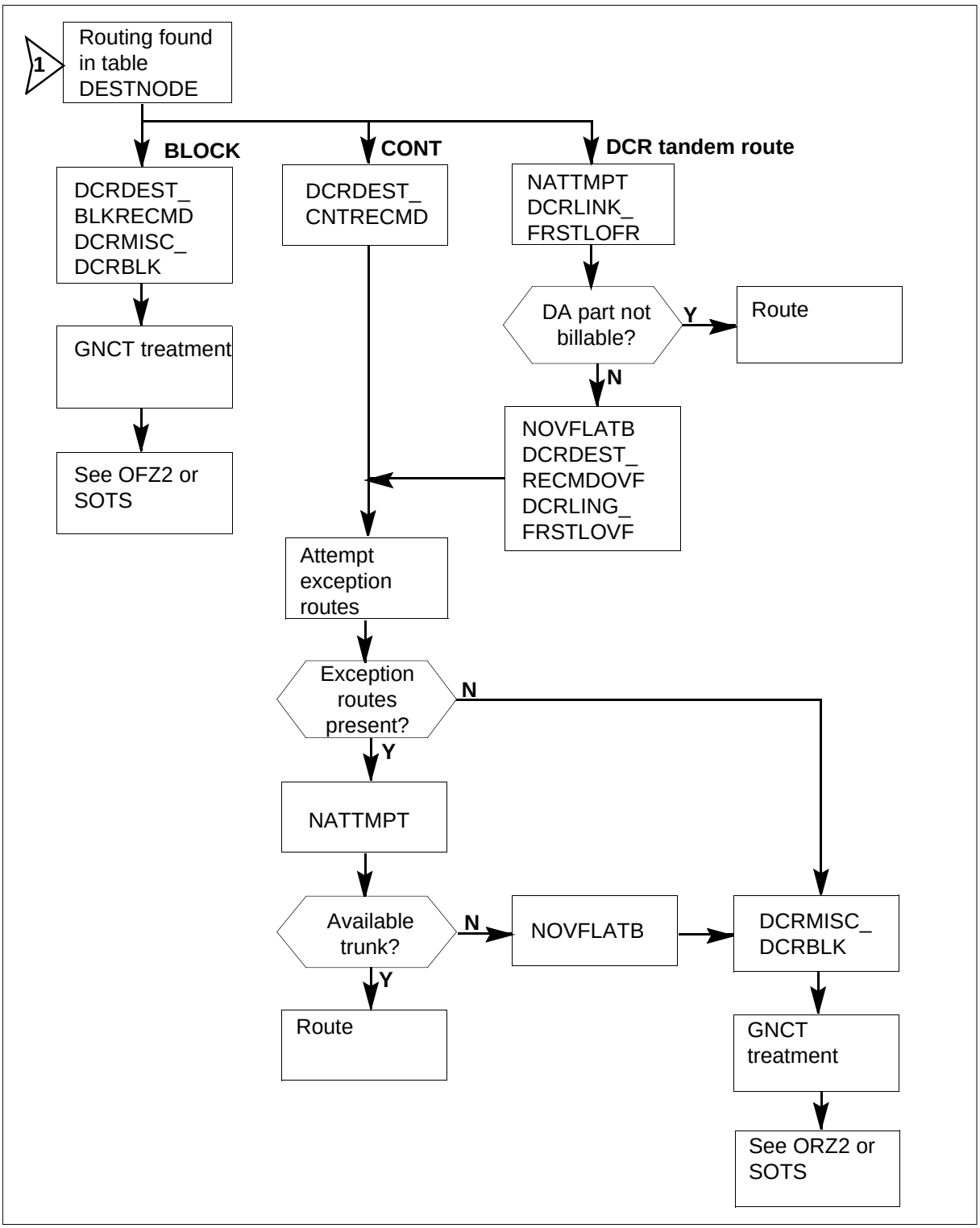
OM group TRK (continued)

OM group TRK registers: DCR call processing



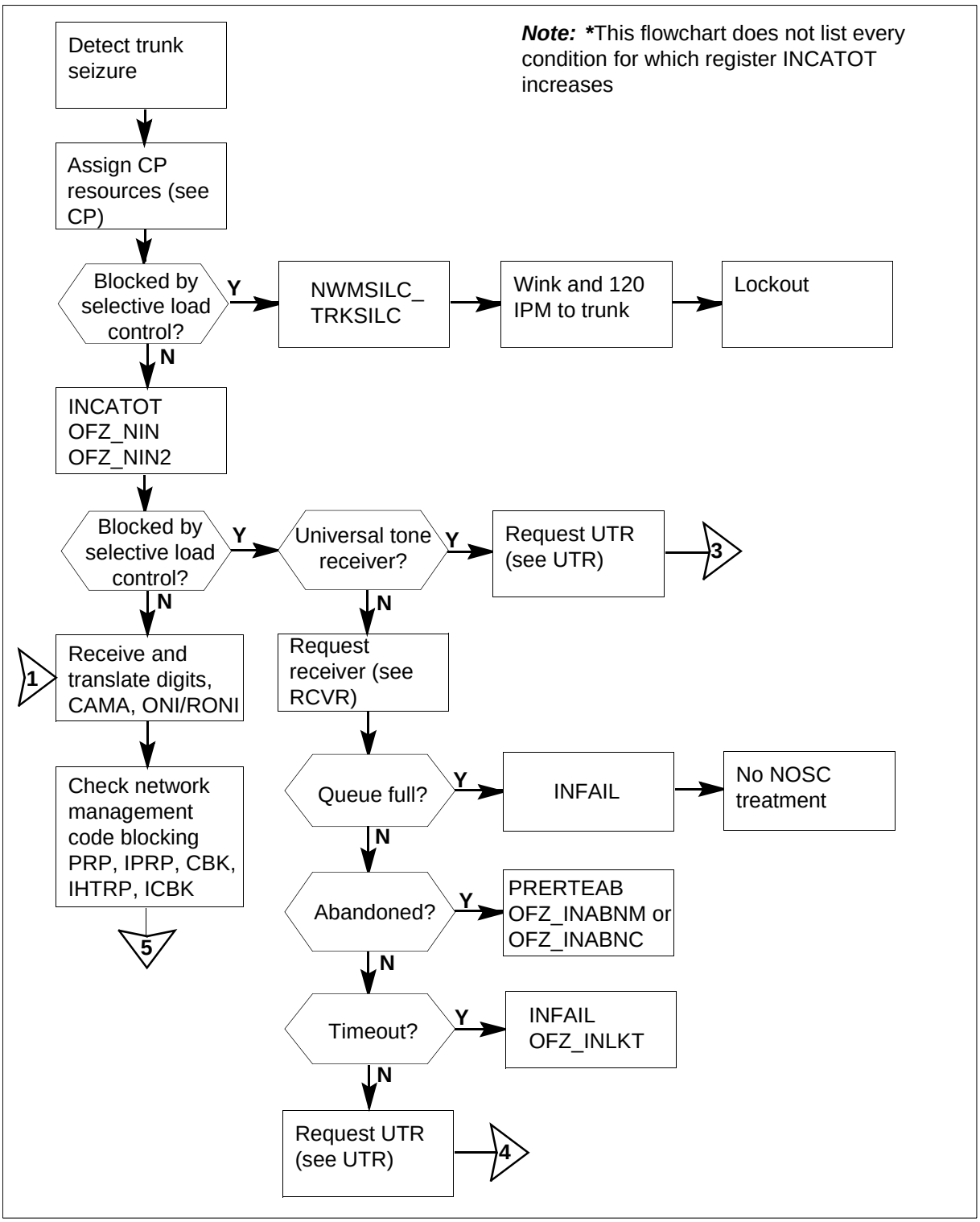
OM group TRK (continued)

OM group TRK registers: DCR call processing (continued)

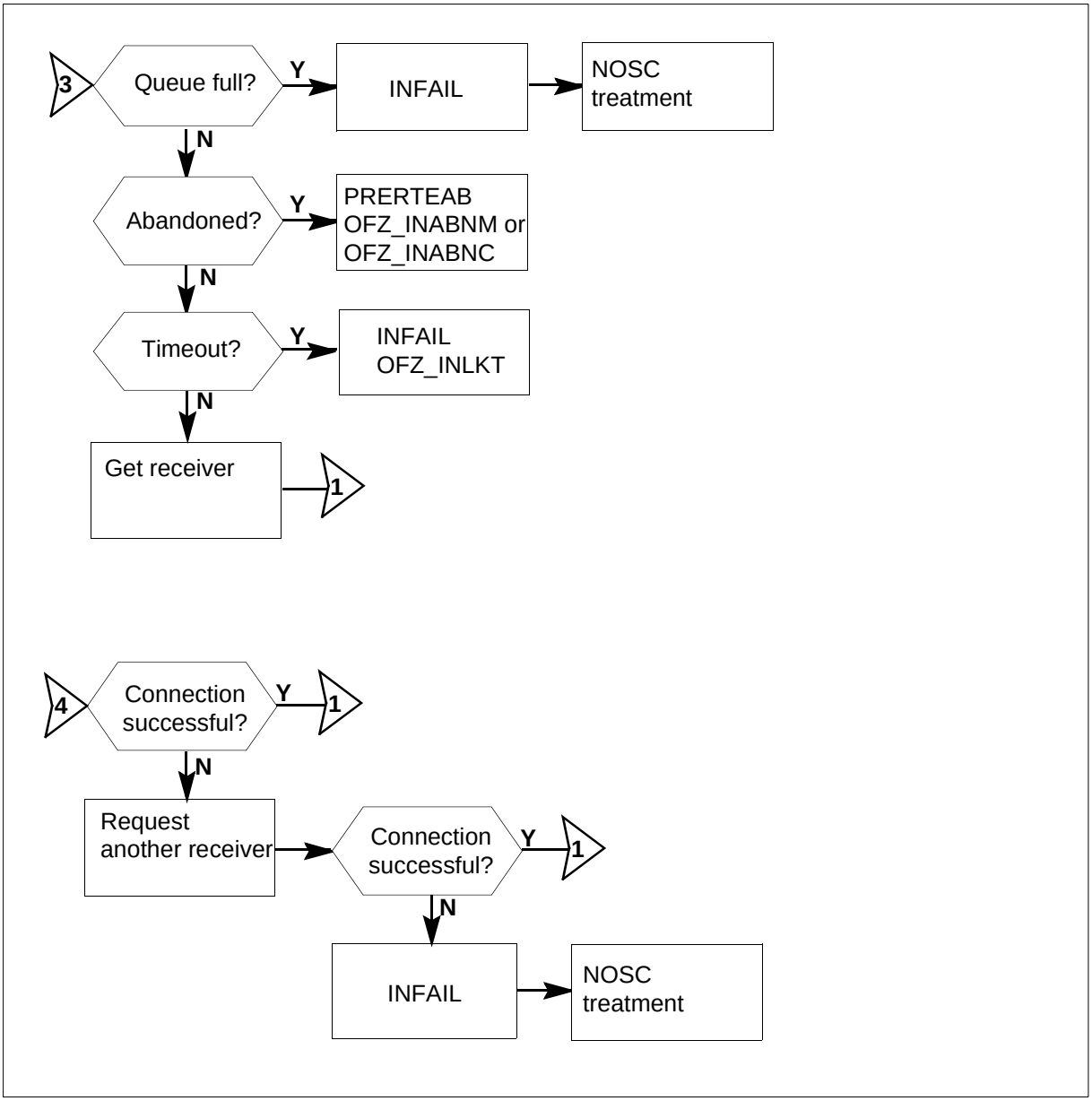


OM group TRK (continued)

OM group TRK registers: trunk origination

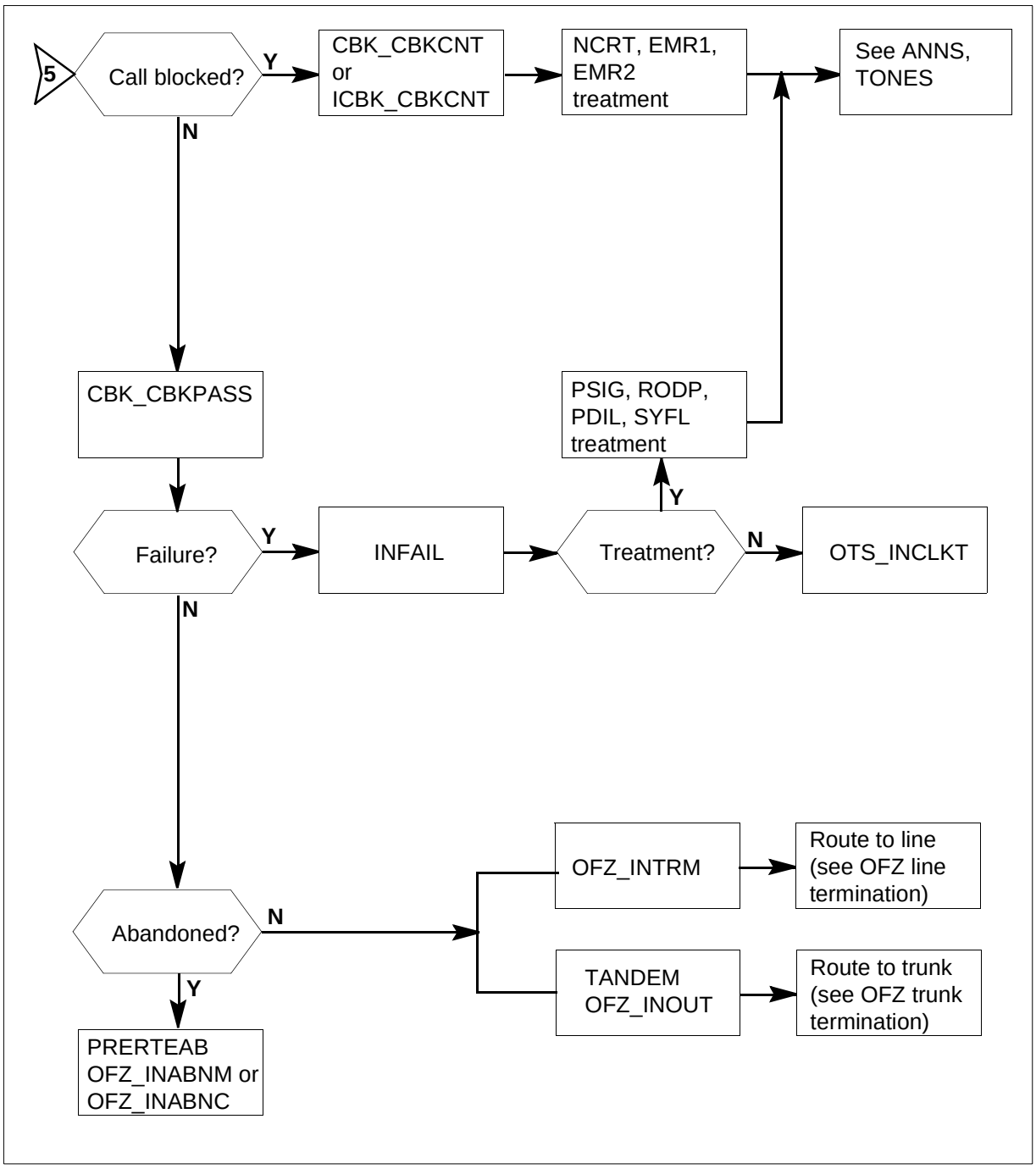


OM group TRK registers: trunk origination (continued)

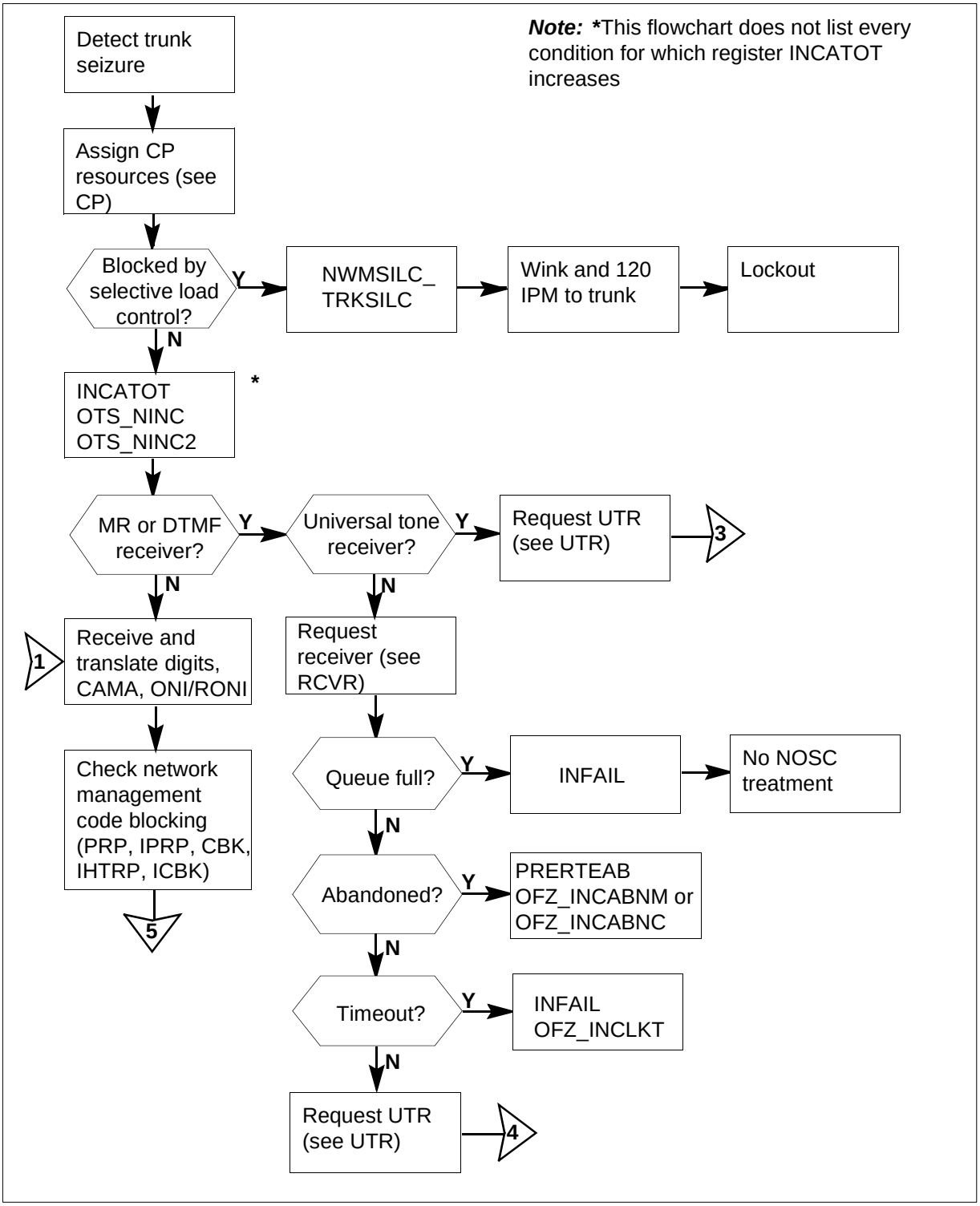


OM group TRK (continued)

OM group TRK registers: trunk origination (continued)

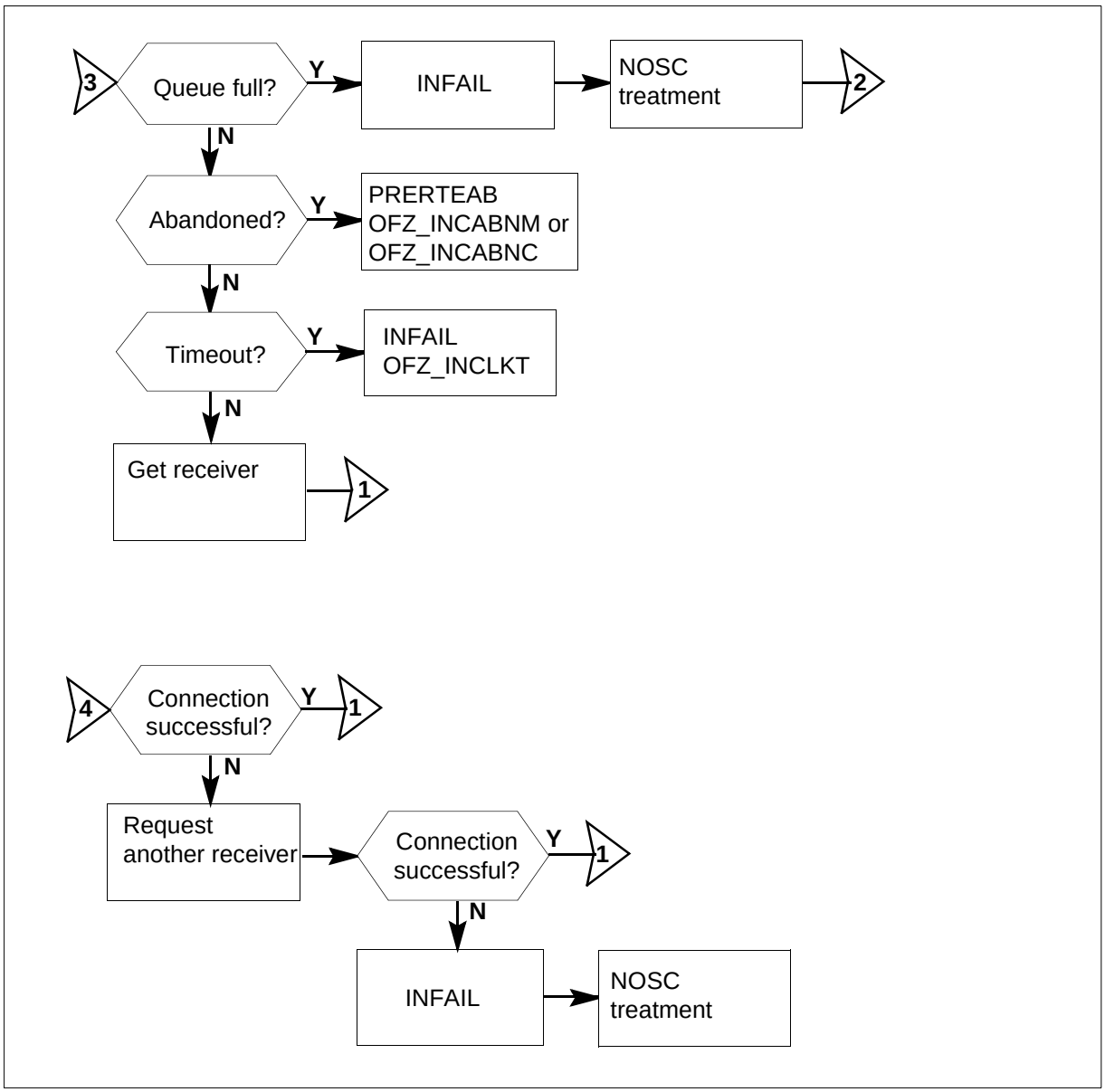


OM group TRK registers: incoming traffic



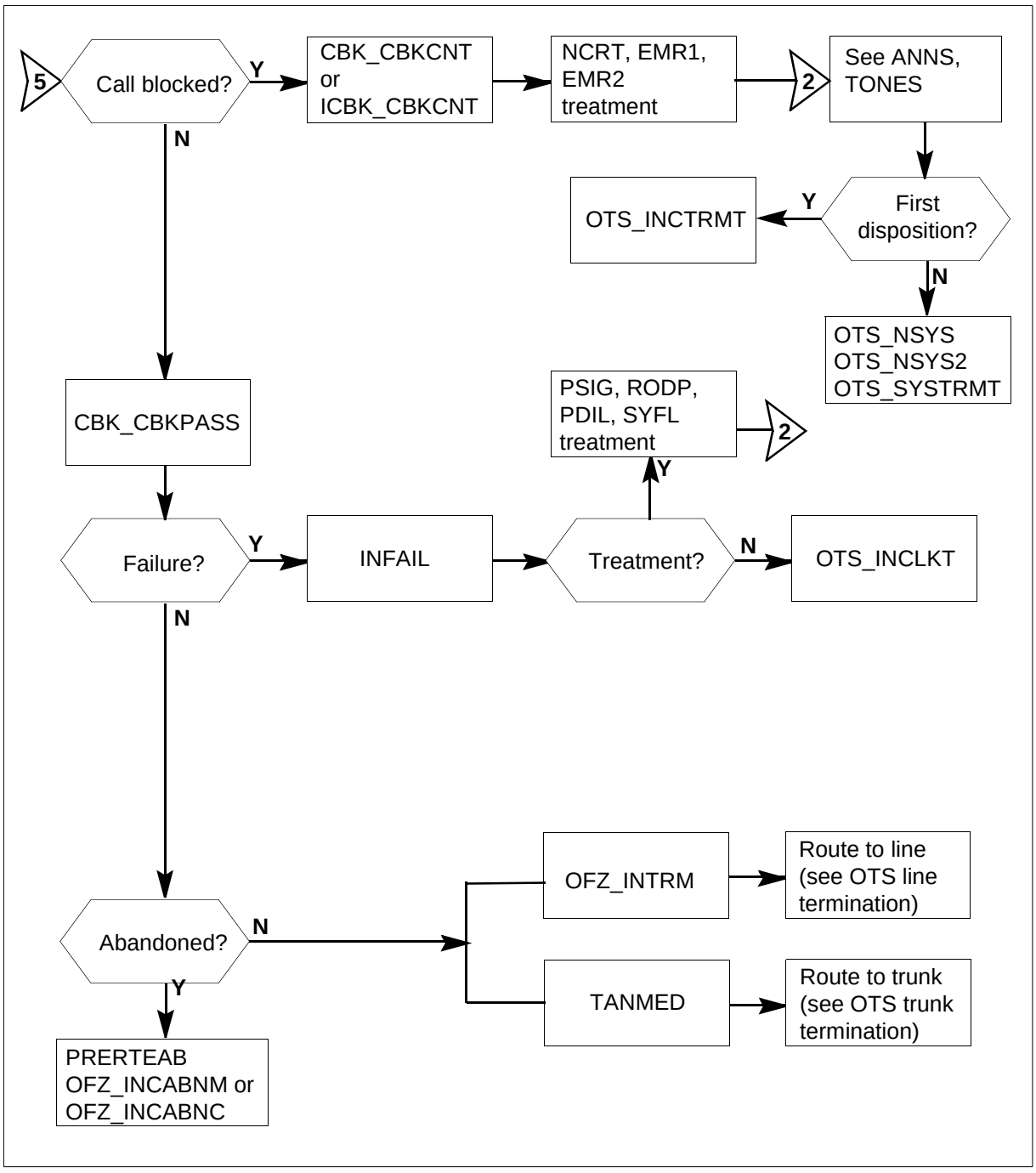
OM group TRK (continued)

OM group TRK registers: incoming traffic (continued)



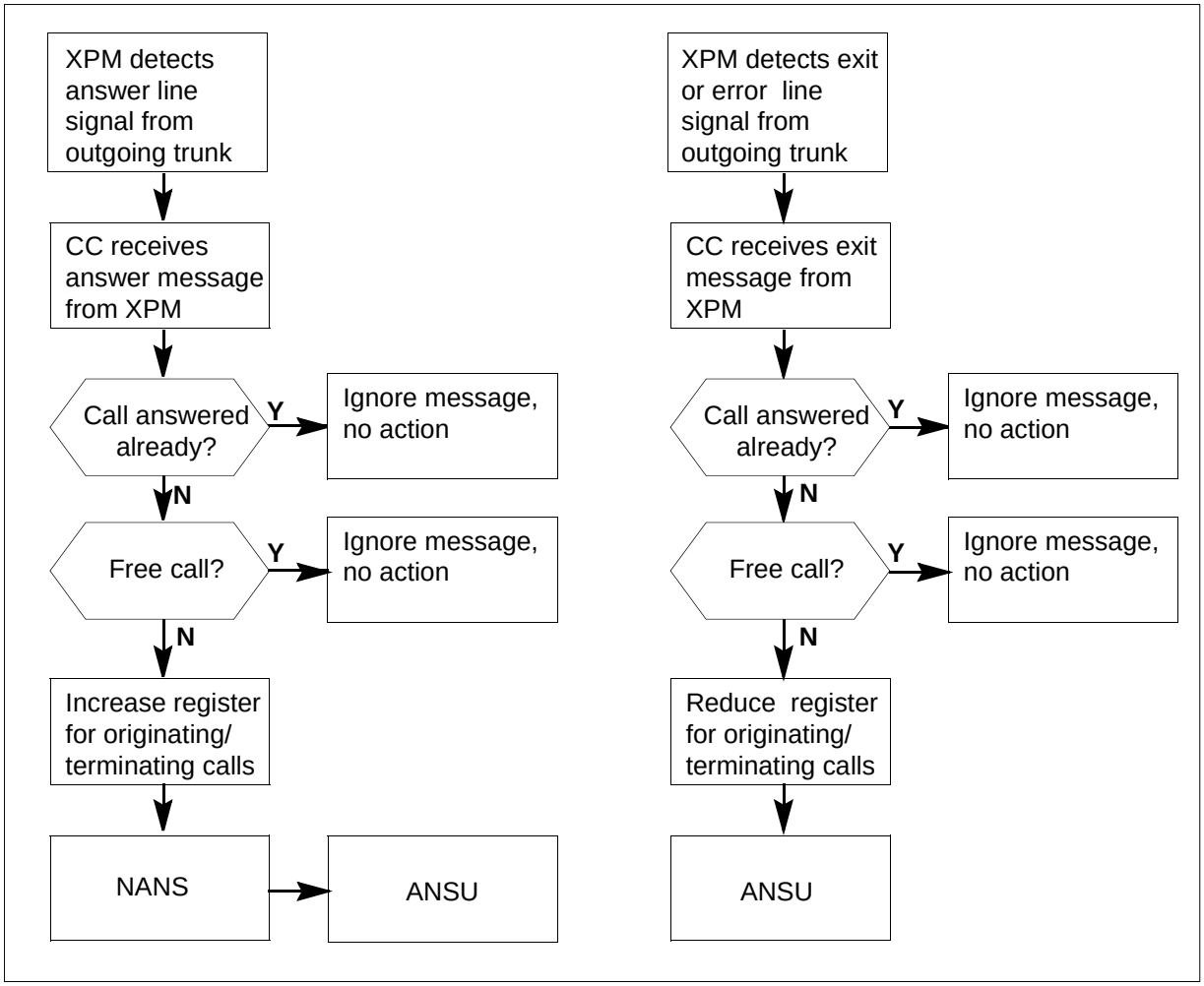
OM group TRK (continued)

OM group TRK registers: incoming traffic (continued)

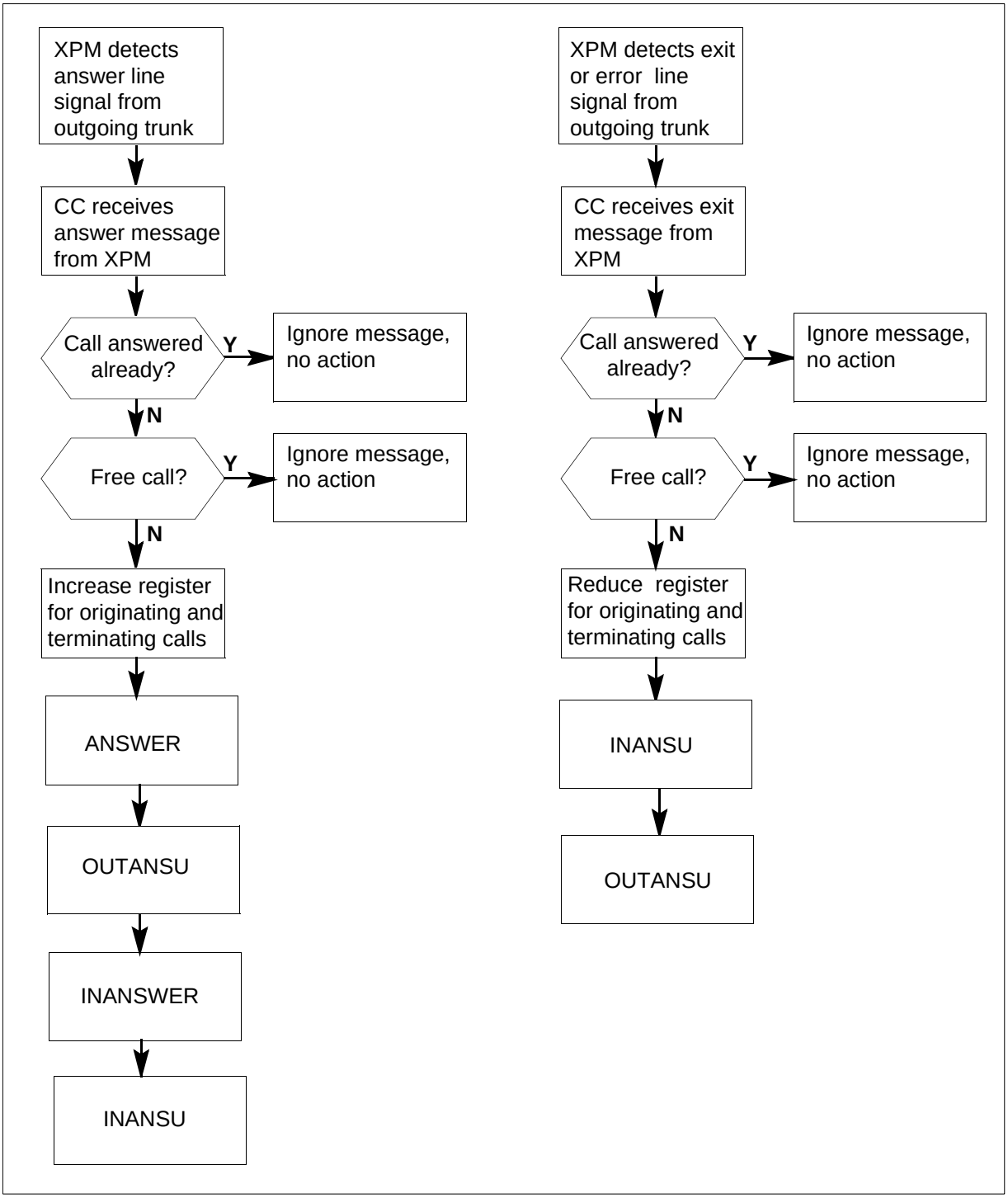


OM group TRK (continued)

OM group TRK registers: answered calls

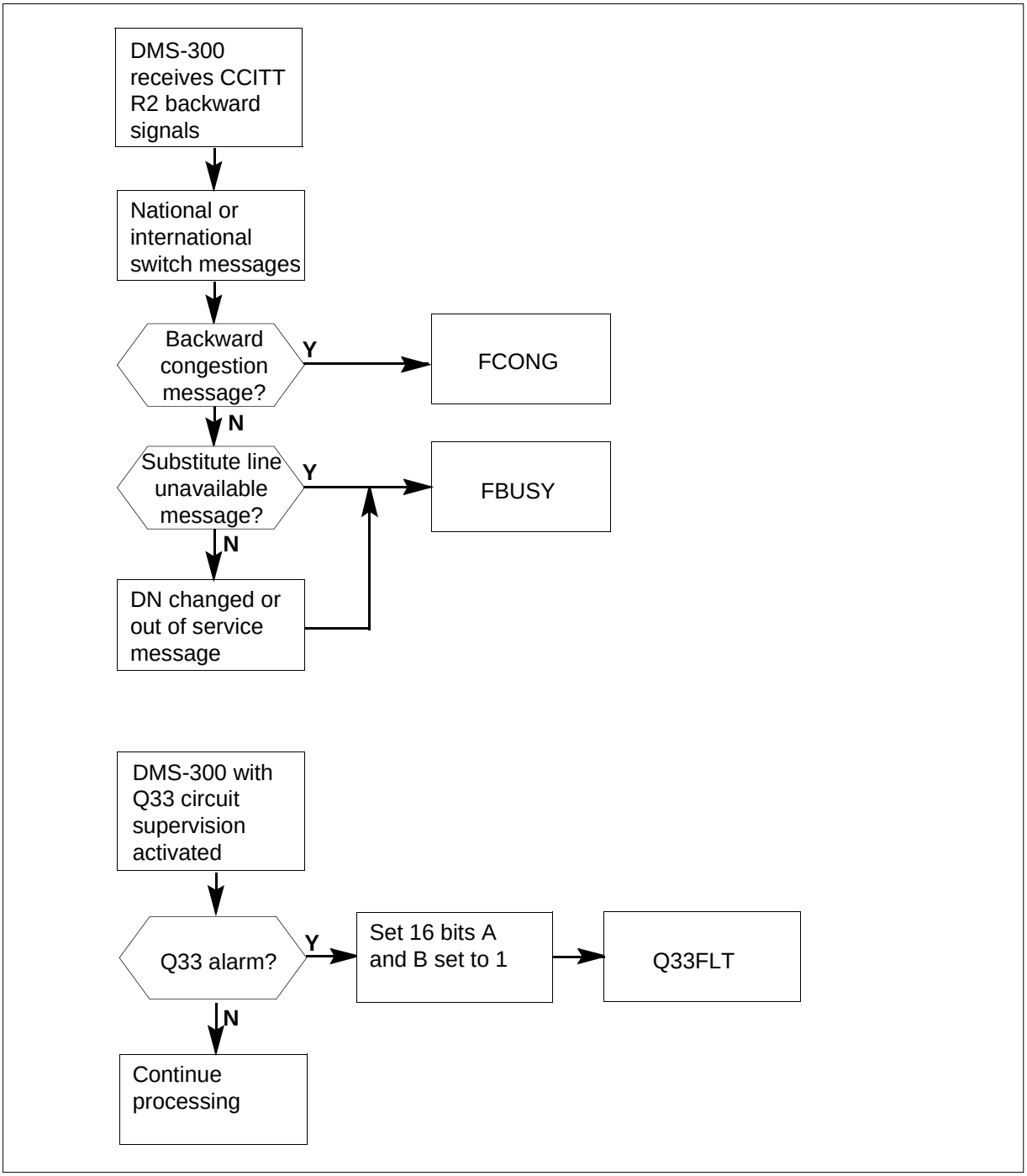


OM group TRK registers: answered calls (continued)



OM group TRK (continued)

OM group TRK DMS-300 registers



Register ACCCONG

Automatic congestion control (ACCCONG)

Register ACCCONG counts the number of times that a trunk group enters Automatic Congestion Control (ACC) congestion.

Register ACCCONG release history

Register ACCCONG was introduced in NA008.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register ANF

Invalid or no automatic number identification (ANI) signals (ANF)

Register ANF counts incoming centralized-automatic message accounting (CAMA) or TOPS calls for which:

- the system receives invalid ANI signaling
- the system did not receive ANI signaling
- the numbering plan area code (N0/1X) or the central office code (NNX) of the calling number for the incoming trunk group is not correct

Register ANF increases when the system attaches the necessary receiver to the call.

The system generates this register for the following office types:

- OFF200
- OFFCOMB
- OFFCOMBLWW
- OFFCOMBTOPS
- OFF200TOPS
- OFF200300
- OFF250
- OFF250IBN

OM group TRK (continued)

For DMS-MTX switches and DMS-250 switches, this register increases when the DMS switch receives a calling number with a central office code. The code for the incoming CAMA trunk group concerned is not correct.

Register ANF release history

Register ANF was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK120 when the DMS switch or the intervening operator encounters problems. Problems can occur during operator number identification (ONI) spill for an incoming call over a CAMA trunk. The system cannot determine the call origination address.

Extension registers

There are no extension registers.

Register ANSU

Answered calls usage register (ANSU)

Register ANSU provides a usage measurement of answered calls for each trunk group on a DMS-100I. This register increases when the extended multiprocessor system (XMS)-based peripheral module (XPM) detects an answer line signal from the outgoing trunk. The register decreases when the XPM detects an exit message from the outgoing trunk.

The system generates this register for office types OFF100, OFF200, OFFCOMB, and OFFCOMBITOPS. This register is optional for office type OFFCOMB and is only present if the system loads package NTXB22AA (OM Enhancements).

Register ANSU release history

The APC100 product does not use register ANSU.

Register ANSU was introduced in BCS34.

Associated registers

NANS

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register ANSWER

Answer supervisions (ANSWER)

When an incoming line/trunk originates a call and an outgoing trunk reports an answer indication to the computer module (CM), the register increases. This register is the answer register for the outgoing trunk. Table 1 shows the interworking supported for releases LEC0011 and above. Table 2 shows the interworking supported for release EUR004 and above.

This register only generates for the following office types:

- OFF100
- OFF200
- OFF200300
- OFF250
- OFF300
- OFFCOMB
- OFFCOMBLWW
- OFFCOMBITOPS
- OFF200TOPS
- OFFCOMBTOPS
- OFF250IBN
- OFF100OESD
- OFF200OESD
- OFFCOMBOESD

For DMS-MTX switches and DMS-250 switches, this register counts hardware or audio answer supervisions received on the trunk group.

For the DMS-100EUR switch, the only valid value for office parameter OFFICETYPE is OFF100.

OM group TRK (continued)

Table 1 shows the interworking supported for releases LEC0011 and above. Table 2 shows the interworking supported for release EUR004 and above.

Interworking supported by OM TRK Answer Register for release LEC0011 and above.

Originating / Incoming Agents (see Note)	**Terminating / Outgoing Agents**			
	ISUP Trunk	PTS Trunk	PRI Trunk (see Note)	PX Trunk
Line	Yes	Yes	Yes	Yes
ISUP Trunk	Yes	Yes	Yes	Yes
PTS Trunk	Yes	Yes	Yes	Yes
PRI Trunk (see Note)	Yes	Yes	Yes	Yes
PX Trunk	Yes	Yes	Yes	Yes
Note: Only Northern American PRI trunks.				

Interworking Supported by OM TRK Answer Register for UK release EUR004 and above

Incoming Agents	**Outgoing Agents**								
	ISUP	C7NUP	DPNSS	AC15	DC5	R1	PRI	EC	LD
BRI Line	No	Yes (1)	No	No	No	No	Yes	No	No
IBN Line	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ISUP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
C7NUP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DPNSS	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
AC15	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DC5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Note: 1. Supported in EUR003.									

Interworking Supported by OM TRK Answer Register for UK release EUR004 and above

Incoming Agents	Outgoing Agents								
PRI	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No
EC	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
LD	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Note: 1. Supported in EUR003.									

Register ANSWER release history

Register ANSWER was introduced before BCS20.

NA0011

OM TRK Answer Register table revised for release LEC0011

CCM04

Register ANSWER increases for Japan signaling as specified by design activity AR1355, “Answer TRK OM pegging capability for IDC Japan."

EUR004

Register ANSWER increases for UK signaling as specified by design activity AG4589, “OM ANSWER Peg for UK."

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register AOF

Automatic number identification (ANI) office failure (AOF)

Register AOF counts incoming calls for which the originating office detects an ANI failure. Failure can be detected despite correct key pulse and signaling terminal control signals. The missing information digits, missing category code or the complete lack of digits indicates an ANI failure.

Register AOF generates for office types OFF100, OFFCOMB, OFFCOMBLWW, OFFCOMBTOPS, OFF200TOPS, OFF200300, OFF250, and OFF250IBN.

OM group TRK (continued)

For DMS-MTX switches and DMS-250 switches, this register increases when an information digit 2 or 5 is received from the local office.

Register AOF release history

Register AOF was introduced before BCS20.

BCS34

This register is not used any longer in the following office types: OFF100, OFF200, OFFCOMB, and OFFCOMBITOPS.

Register AOF counts the number of answered calls for each trunk group for the following office types: OFF100, OFF200, OFFCOMB, and OFFCOMBITOPS.

Associated registers

There are no associated registers.

Associated logs

Register TRK118 generates when the system encounters trouble during ANI spill for an incoming call. In this example, the system cannot determine call originating address.

Register TRK119 generates when an operator keys in the originating station number identification and releases the call. The operator releases the call because the system encounters trouble with DMS ANI.

Extension registers

There are no extension registers.

Register BLKCTRK

Blocked calls on trunk (BLKCTRK)

Register BLKCTRK counts the number of times the following events occur:

- an associated trunk group for a call is a dedicated access line or primary rate access
- the trunk is the last available route in the route list
- the call receives general no-circuit (GNCT) treatment or busy (BUSY) treatment

Register BLKCTRK only appears in DMS-250 switches and OFFCOMBLWW offices.

Register BLKCTRK release history

Register BLKCTRK was introduced in BCS27.

Associated registers

There are no associated registers.

Associated logs

Register TRK138 generates when the subscriber receives GNCT or BUSY treatment.

Extension registers

There are no extension registers.

Register CONGEST

Congestion signals (CONGEST)

Register CONGEST counts congestion signals received on the outgoing number 5 or number 6 trunk group.

This register generates only in office types OFF300 and OFF200300.

Register CONGEST release history

Register CONGEST was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CONNECT

Successful connections (CONNECT)

Register CONNECT counts outgoing seizure attempts on the trunk group that appear to result in successful connection.

Register CONNECT increases before the system knows if the seizure is successful. The count reduces by 1 (decreases) if an indication of glare or seize failure is received. This register generates for all correct office types.

OM group TRK (continued)

For office type OFF300, this register decreases on number 5 trunks, number 6 trunks and number 7 trunks.

Register CONNECT release history

Register CONNECT was introduced before BCS20.

Associated registers

Register GLARE increases when the system drops an earlier selected trunk. The system drops the trunk because the peripheral module detects an origination before it can seize the trunk.

Register OFZ_OUTMFL counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk.

Register OFZ_OUTNWAT counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk.

Register OFZ_OUTRMFL counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

Register OUTFAIL counts errors that occur on an outgoing trunk after the system makes an attempt to seize the trunk.

The following calculation represents the relationship among the above-mentioned registers:

OFZ_OUTNWAT + (OFZ_OUTNWAT2 $\times$ 65536) - OFZ_OUTMFL - OFZ_OUTRMFL

= Σ (CONNECT + GLARE + OUTFAIL)

Register GLARE increases when the system drops an earlier selected trunk. The system drops the trunk because the PM detects an origination before the PM could seize the trunk.

Register SOTS_SOUTMFL counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk.

Register SOTS_SOUTNWT counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk.

Register SOTS_SOUTRMFL counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

Register OUTFAIL counts errors that occur on an outgoing trunk after an attempt to seize the trunk.

The following calculation represents the relationship among the above-mentioned registers:

SOTS_SOUTNWAT + (SOTS_SOUTNWT2 × 65536) - SOTS_SOUTMFL

- SOTS_SOUTRMFL = Σ (CONNECT + GLARE + OUTFAIL)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register DEFLDCA

Network management (NWM) reroute (DEFLDCA)

Register DEFLDCA counts calls that the system prevents from accessing the trunk group. The system routes the calls to this trunk group. The system denies access by the calls because of the action of network management controls.

Register DEFLDCA counts calls that the system denies for the activity of any of the following NWM controls:

- SKIP control is in effect
- the number of trunks qualified for incoming calls is at or below the directional reservation (DRE) level
- the number of idle trunks is at or below the protective reservation (PRE) level for calls that have been alternate-routed to the group
- time assignment speech interpolation (TASI) control is in effect
- selective trunk reservation (STR) control is in effect
- cancel to (CANT) control is in effect
- bidirectional trunk group reservation control (BRC) is in effect

If the control is SKIP, DRE, PRE, or TASI, the system routes the call. If cancel from (CANF) control is in effect, the system sends the call to treatment.

If the control is STR or CANT the system sends the call to treatment.

OM group TRK (continued)

The system this register for all correct office types.

Register DEFLDCA release history

Register DEFLDCA was introduced before BCS20.

BCS35

Register DEFLDCA increases when the BRC network management trunk group control prevents a call from accessing the trunk group to which it is routed.

BCS23

Register DEFLDCA increased on international DMS-100 Family switches.

Associated registers

There are no associated registers.

Associated logs

The system generates NWM100 when the system activates or deactivates DRE for a trunk group.

The system generates NWM101 when the system activates or deactivates PRE for a trunk group.

The system generates NWM102 when the system activates or deactivates CANT for a trunk group.

The system generates NWM103 when the system activates or deactivates CANF for a trunk group.

The system generates NWM104 when the system activates or deactivates SKIP for a trunk group.

The system generates NWM106 when the system activates or deactivates STR for a trunk group.

The system generates NWM108 when the system activates or deactivates TASI for a trunk group.

Extension registers

There are no extension registers.

Register DREU

Directional reservation (DRE) usage (DREU)

Register DREU is a usage register. Every 100 s the system scans the trunk group and this register records if DRE activates for a two-way trunk group.

The system generates DREU for all correct office types.

Register DREU release history

Register DREU was introduced before BCS20.

BCS33

When you set office parameter OMINERLANGS to Y, you convert the usage count from CCS to deci-erlangs before the count appears. Use the OMSHOW command on the Active class to display the usage count. The value in the active registers remains in CCS.

BCS20

Software changes in BCS20 to provide usage counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

The system generates NWM100 when DRE activates or deactivates for a trunk group.

Extension registers

There are no extension registers.

Register FA

Fangen (FA)

Register FA increases when “fangen" (seizure) occurs on the trunk group.

The system generates this register in office types OFF100OESD, OFF200OESD, and OFFCOMBOESD.

Register FA release history

FA was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TRK (continued)

Extension registers

There are no extension registers.

Register FBUSY

Far-end busy (FBUSY)

Register FBUSY increases when information about a call result from the far end indicates one of the following conditions:

- directory number changed
- subscriber line busy
- subscriber line on intercept
- subscriber line seized
- out of service

The system generates this register in office type OFF300.

Register FBUSY release history

Register FBUSY was introduced in BCS25.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register FCONG

Far-end congestion (FCONG)

Register FCONG increases when information about the call result from the far end indicates one of the following conditions:

- congestion
- DMS-300 international congestion
- timeout

The system generates this register in office type OFF300.

Register FCONG release history

Register FCONG was introduced in BCS25.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register FV

Fangen vorbereitet (FV)

Register FV counts “fangen vorbereitet" (seizure ready) states that occur on a trunk group.

The system generates this register in office types OFF100OESD, OFF200OESD, and OFFCOMBOESD.

Register FV release history

Register FV was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register GLARE

Glare (GLARE)

Register GLARE increases when the system drops a trunk that the system selects at an earlier time. The system drops this trunk because the PM detects an origination before the PM can seize the trunk. The operating company gives information that indicates that outgoing calls give way to simultaneous incoming calls (glare).

OM group TRK (continued)

The system attempts a new selection. If the system encounters glare again, the system routes the call to generalized no-circuit (GNCT) treatment. Register GLARE increases again. The system generates this register for office types that are correct.

GLARE release history

Register GLARE was introduced before BCS20.

BCS31

Register GLARE increases for failed call attempts on DMS-300.

Associated registers

Register CONNECT counts outgoing seizure attempts on the trunk group that result in connections.

Register OFZ_OUTMFL counts calls that fail to find a network path to a selected outgoing or test trunk on the first attempt.

Register OFZ_OUTNWAT counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk.

Register OFZ_OUTRMFL counts calls that fail to find a network path to a selected outgoing or test trunk on the second attempt.

Register OUTFAIL increases when an error occurs on an outgoing trunk after the system makes an attempt to seize the trunk.

The following calculation represents the relationship among the above-mentioned registers:

OFZ_OUTNWAT + (OFZ_OUTNWAT2 $\times$ 65536) - OFZ_OUTMFL - OFZ_OUTRMFL

= Σ (CONNECT + GLARE + OUTFAIL)

Register CONNECT counts outgoing seizure attempts on the trunk group that result in connections.

Register OUTFAIL counts errors on an outgoing trunk after an attempt to seize the trunk.

Register SOTS_SOUTMFL counts calls that fail to find a network path to a selected outgoing or test trunk on the first attempt.

Register SOTS_SOUTNWT counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk.

Register SOTS_SOUTRMFL counts calls that fail to find a network path to a selected outgoing or test trunk on the second attempt.

The following calculation represents the relationship among the above-mentioned registers:

SOTS_SOUTNWT + (SOTS_SOUTNWAT2 × 65536) - SOTS_SOUTMFL

SOTS_ SOUTRMFL = Σ (CONNECT + GLARE + OUTFAIL)

Associated logs

The system generates log TRK113 if the system encounters problems during call processing of a trunk-to-trunk call.

The system generates TRK121 if the DMS does not receive an acknowledgement wink from the far-end equipment. An acknowledgement wink indicates that the far-end equipment is ready to receive digits.

Extension registers

There are no extension registers.

Register INANSWER

Answer messages sent and received on incoming trunk (INANSWER)

Register INANSWER counts the answered calls for incoming traffic for each incoming or two-way trunk.

Register INANSWER release history

APC010 introduced register INANSWER.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group TRK (continued)

Register INANSU

Answer messages received and sent usage on incoming trunk (INANSU)

Register INANSU is a usage register that shows the number of answered calls on incoming trunk calls. This register measures traffic in the answered state for each incoming or two-way trunk. The register measures the occupancy in Erlangs.

The value of register INANSU increases every 100 s according to the number of trunks occupied with answered calls.

Register INANSU release history

APC010 introduced register INANSU.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register INCATOT

Incoming attempts total (INCATOT)

Register INCATOT counts incoming seizures on a trunk group, including seizures that fail or that the system abandons before routing. The system generates this register for all office types that are correct.

For DMS-MTX switches, this register increases when the system attempts to originate on an MTX trunk group. The system attempt includes handoff attempts for an originating mobile. This system can assign a maximum of eight MTX trunk groups to a cell site. The register can increase a maximum of eight times for a single origination, one time for each group.

Register INCATOT release history

Register INCATOT was introduced before BCS20.

Associated registers

OFZ_NIN counts incoming calls.

The following calculation represents the relationship between the registers:

Σ TRK_INCATOT = OFZ_NIN + (OFZ_NIN2 $\times$ 65535)

OTS_NINC counts incoming call attempts.

The following calculation represents the relationship between the registers:

Σ TRK_INCATOT = OFZ_NINC + (OFZ_NINC2 $\times$ 65535)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register INFAIL

Incoming failures (INFAIL)

Register INFAIL increases when any one of the following events occurs on a trunk that has originated a call or appears to have originated a call:

- permanent signal
- partial dial timeouts and false starts
- bad digits, including bad signaling terminal (ST) digit
- any originations on one-way outgoing trunks
- lost integrity on the network path while connected to a service circuit or to another trunk before answer
- failure to attach a receiver after two attempts
- receiver queue overflow
- receiver queue wait time-out
- failure to time-out after 30 s while waiting for a multifrequency receiver
- progress message of a type not expected in the current call environment
- force-release before connection

These events can indicate a need for maintenance action. These events can result in call failure if a call was in progress. This register generates for office types that are correct.

OM group TRK (continued)

Register INFAIL release history

Register INFAIL was introduced before BCS20.

BCS31

Register INFAIL increases for failed call attempts on DMS-300.

Associated registers

Register OFZ_INANN counts incoming calls that the system routes to an announcement.

Register OTS_INCLKT counts incoming calls that fail and that the system routes to lockout.

Register OTS_INCTRMT counts incoming calls that the system routes to a tone or an announcement.

Register OFZ_INLKT counts incoming calls that the system routes to lockout.

Register OFZ_INTONE counts incoming calls that the system routes to a tone.

Registers OFZ_INLKT and OFZ_INTONE or OFZ_INANN, or OTS_INCLKT, and OTS_INCTRMT can also count calls that fail.

Associated logs

The system generates TRK111 if a trunk-to-trunk call encounters problems or if the system routes the call to a treatment.

The system generates log TRK114 if the system cannot determine the call destination during dial pulse (DP) reception for an incoming call.

The system generates log TRK115 if the system cannot determine the call destination during DP reception for an incoming call.

The system generates log TRK116 if the system cannot determine call destination during multifrequency (MF) reception for an incoming call.

The system generates log TRK117 if the system cannot determine call destination during MF reception for an incoming call.

The system generates log TRK138 if the system routes a call to a treatment after being call processing busy.

The system generates log TRK182 if the system cannot determine call destination during Digitone (DT) reception for an incoming call.

The system generates log TRK183 if a permanent signal problem occurs when an incoming call encounters problems during DT reception.

The system generates log TRK213 when the system encounters problems on a trunk.

Extension registers

There are no extension registers.

Register INTRMLU

Incoming terminal traffic (INTRMLU)

Register INTRMLU counts incoming terminal calls for which the first digit received is key pulse (KP) or KP1.

The system generates this register in office types OFF200300 and OFF300.

Register INTRMLU release history

Register INTRMLU was introduced before BCS20.

BCS20

Register INTRMLU changed from a usage register to a peg register. This register increases one time for each call.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register INTRNSU

Incoming transit traffic (INTRNSU)

Register INTRNSU counts incoming transit calls for which the first digit received is KP2.

The system generates this register in office types OFF200300 and OFF300.

Register INTRNSU release history

Register INTRNSU was introduced before BCS20.

OM group TRK (continued)

BCS20

Register INTRNSU changed from a usage register to a peg register. This register counts one time for each call.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register INVAUTH

Invalid authorization code (INVAUTH)

Register INVAUTH counts authorization codes that are not correct.

The system generates register INVAUTH in office types OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWN and OFFCOMB300. However the register is primarily pegged when the office type is set to OFF250IBN.

Register INVAUTH release history

Register INVAUTH was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register MAXBU

Maximum busy circuits (MAXBU)

Register MAXBU is a usage register. Every 100 s the system scans the trunk group. This register increases if the number of busy circuits exceeds the maximum number that the system recorded at an earlier time.

The system generates register MAXBU only in DMS-250 offices.

Register MAXBU release history

Register MAXBU was introduced in BCS27.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register MBU

Maintenance busy usage (MBU)

Register MBU is a usage register. Every 100 s the system scans the trunk group. This register records if a trunk is in one of the following states:

- manual busy
- seized
- network management busy

The system generates register MBU for office types that are correct.

Register MBU release history

Register MBU was introduced before BCS20.

BCS33

When you set office parameter OMINERLANGS to Y, you convert the usage count from CCS to dec-erlangs before the count appears. Use the OMSHOW commands on the ACTIVE class to display the usage count. The active registers remains in CCS.

BCS20

Software change in BCS20 provide usage counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TRK (continued)

Extension registers

There are no extension registers.

Register MTRPULS

Metering pulses (MTRPULS)

Register MTRPULS counts metering pulses that the system generates for the trunk group.

The system generates this register in office types OFF200OESD and OFFCOMBOESD.

Register MTRPULS release history

Register MTRPULS was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

MTRPULS2

Register NANS

Number of answered calls (NANS)

Register NANS counts the number of answered calls for each trunk group on a DMS-100I. This register increases when the extended multiprocessor system (XMS)-based peripheral module (XPM) detects an answer line signal from the outgoing trunk.

The system generates register NANS in office types OFF100, OFF200, OFFCOMB, and OFFCOMBITOPS. This register is optional for office type OFFCOMB and is only present if the system loads package NTXB22AA.

Register NANS release history

The APC100 product does not use register NANS.

Register NANS was introduced in BCS34.

Associated registers

ANSU

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register NATTMPT

Number of attempts (NATTMPT)

Register NATTMPT increases when the system routes an outgoing call to a trunk group.

Register NATTMPT increases before network management controls increase. This register increases before an idle trunk and a network connection to the trunk are available. The system generates this register for office types that are correct.

For DMS-MTX switches, this register counts attempts to terminate on an MTX trunk group. These attempts include handoff attempts for a terminating mobile.

The system can assign up to eight MTX trunk groups to a cell site. Register MTX can increase up to eight times for a single termination, one time for each group.

Register NATTMPT release history

Register NATTMPT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register NCTFAIL

Network call transfer fail (NCTFAIL)

Register NCTFAIL records the total number of failed network call transfers (NCT). Register NCTFAIL is not available to all customers. Contact Nortel Support about NCTFAIL for your switch.

OM group TRK (continued)

Register NCTFAIL is visible in offices where OFFICETYPE is OFFCOMBLWW, OFF250, OFFMTX100I,or OFF250IBN.

Register NCTFAIL release history

Register NCTFAIL was introduced in TL04.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register NCTPASS

Network call transfer pass (NCTPASS)

Register NCTPASS records the total number of completed network call transfers (NCT).

Register NCTPASS is visible only in offices where OFFICETYPE is OFFCOMBLWW, OFF250, OFFMTX100I, or OFF250IBN. Register NCTPASS is not available to all customers. Contact Nortel Support about NCTPASS for your switch.

Register NCTPASS release history

Register NCTPASS was introduced in TL04.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register NOANSWER

No Answer on trunk [Timed out] (NOANSWER)

Register NOANSWER is a peg register which counts the number of times a call has been taken down after a specified time-out value has been reached, as

part of Black Box Fraud prevention (BBFP). The time-out value is implemented on a trunk-group basis and can be set to either one, two, three, four, or five minute intervals. Upon expiration of the timer, the NOANSWER register is pegged..

NOANSWER is displayed for the following officetypes: OFF100, OFF200, OFFCOMB, OFF200TOPS, OFFCOMBITOPS, , OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, NOOFFICE. In office types OFF250, OFF250IBN and OFFMTX100I, register NOANSWER is displayed but not incremented because they are tandem offices, and the BBFP feature is supported only for end offices. However, in the OM code, the NOANSWER field had to be included in all end-office types; therefore, some non-end-office types also pick up the field,

NOANSWER functionality is activated and deactivated via the DLYFWDXMT option datafill of table TRKOPTS on a trunk-group basis.

Register NOANSWER is pegged when the black box fraud timer or DLYFWDXMT timer expires before an answer supervision signal is receieved. The timeout value is datafilled in table TRKOPTS.

Register NOANSWER release history

Register NOANSWER was introduced in NA09.

Associated registers

There are no associated registers.

Associated logs

Log TRK610 is generated each time the NOANSWER register is pegged.

Extension registers

There are no extension registers.

Register NOVFLATB

Number of overflows, all trunks busy (NOVFALTB)

Register NOVFLATB increases when a call with access to the trunk group overflows the group. The system routes the call because an idle trunk is not available. A call can access the same group more than one time. Overflow can occur only one time. Overflow occurs if the system cannot use the first trunk because of seize fail, glare or network blockage. Register NOVFLATB increases when the system cannot find an idle trunk on the first or any of the following access attempts. This register generates for office types that are correct.

OM group TRK (continued)

For DMS-MTX switches, this register increases when an attempt to terminate on an MTX trunk group fails. This register increases when an attempt to handoff a terminating mobile to an MTX trunk group fails. Failure occurs because an idle trunk is not available. The system can assign up to eight MTX trunk groups to a cell site. This register can increase up to eight times for a single termination, one time for each group.

Register NOVFLATB release history

Register NOVFLATB was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates ATB100 when the system blocks an attempt to seize a trunk to a specified numbering plan area or central office. The system advances the call to another route.

Extension registers

There are no extension registers.

Register OUTANSU

Answer message received and sent usage on an outgoing trunk (OUTANSU)

Register OUTANSU is a usage register that shows the number of answered calls on outgoing trunk calls. This register measures traffic in the answered state for each outgoing or two-way trunk. The register measures the occupancy in Erlangs.

The value of register OUTANSU increases every 100 s according to the number of trunks occupied with answered calls.

Register OUTANSU release history

APC010 introduced register OUTANSU.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register OUTFAIL

Outgoing failures (OUTFAIL)

Register OUTFAIL counts attempts to seize an outgoing trunk in the trunk group that fail because of following:

- signaling problems
- loss of accuracy
- outgoing failures
- seizure failures

The system releases the trunk. The system performs a maximum of two attempts to seize a trunk. The system counts each failed attempt in OUTFAIL. If a second attempt to seize a trunk fails, the system routes the call to treatment.

The system can generate a log message. Generation of a log message depends on the cause of the failure.

The system generates register OUTFAIL for office types that are correct.

Register OUTFAIL release history

Register OUTFAIL was introduced before BCS20.

BCS31

Register OUTFAIL increases for failed call attempts on DMS-300.

Associated registers

Register CONNECT counts outgoing seizure attempts on the trunk group that result in connections.

Register GLARE increases when the system drops a trunk that the system selects at an earlier time. The system drops the trunk because the PM detected an origination. The PM detects an origination before the PM seizes the trunk.

Register OFZ_OUTMFL counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk.

Register OFZ_OUTNWAT counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk.

Register OFZ_OUTOSF counts calls that fail on the first attempt to seize an outgoing trunk.

OM group TRK (continued)

Register OFZ_OUTROSF counts calls that fail on the second attempt to seize an outgoing trunk.

The system counts each failure to seize an outgoing trunk in OUTFAIL. The system also counts the first failed attempt in OFZ_OUTOSF. The system also counts the second failed attempt in OFZ_OUTROSF.

Register OFZ_OUTRMFL counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

The following calculation represents the relationship among the above-mentioned registers:

OFZ_OUTNWAT + (OFZ_OUTNWAT2 × 65536) - OFZ_OUTMFL - OFZ_OUTRMFL

= Σ (CONNECT + GLARE + OUTFAIL)

Register CONNECT counts outgoing seizure attempts on the trunk group that result in connections.

Register GLARE increases when the system drops a trunk the system selects at an earlier time. The system drops the trunk because the PM detected an origination. The PM detects an origination before the system seizes the trunk.

Register SOTS_SOUTMFL counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk.

Register SOTS_SOUTNWT counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk.

Register SOTS_SOUTRMFL counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

The following calculation represents the relationship among the above-mentioned registers:

SOTS_SOUTNWT + (SOTS_SOUTNWAT2 × 65536) -SOTS_SOUTMFL -SOTS_SOUTRMFL

= Σ (CONNECT + GLARE + OUTFAIL)

Associated logs

The system generates TRK113 if the system encounters problems during call processing of a trunk-to-trunk call.

The system generates TRK121 if the DMS does not receive an acknowledgement wink from the far-end equipment. The acknowledgement wink indicates that the equipment is ready to receive digits.

The system generates TRK122 if the central control detects a loss of accuracy on both planes of the trunk equipment.

The system generates TRK162 if the system encounters problems during outpulsing of a trunk-to-trunk or line-to-trunk call. The call uses dual-tone multifrequency (DTMF) signaling.

The system generates TRK213 if the system encounters problems on a trunk.

Extension registers

There are no extension registers.

Register OUTMTCHF

Outgoing matching failure (OUTMTCHF)

Register OUTMTCHF counts attempts to find a path from an incoming trunk or originating line to a selected trunk that fail. Failure occurs as a result of network blockage.

If the system blocks an outgoing call, the call again attempts to select a trunk. If the system blocks this attempt, OUTMTCHF counts the call again. The system routes the call to NBLH treatment.

The system generates this register for office types that are correct.

Register OUTMTCHF release history

Register OUTMTCHF was introduced before BCS20.

Associated registers

Register OFZ_OUTMFL counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk.

Register OFZ_OUTNWAT counts incoming or originating calls intended for a specified outgoing or test trunk.

Register OFZ_OUTNWAT counts attempts to access a network path from an incoming trunk or an originating line. The system sends the network path to a selected trunk.

OM group TRK (continued)

Register OFZ_OUTRMFL counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

Register OUTMTCHF and OFZ_OUTMFL count first-trial failures.

Register OUTMTCHF and OFZ_OUTRMFL count second-trial failures.

The following calculation represents the relationship among the above-mentioned registers:

Σ TRK_OUTMTCHF = OFZ_OUTMFL + OFZ_OUTRMFL

Register OTS_SOUTNWT counts attempts to access a network path from an incoming trunk or an originating line. The system sends the network path to a selected trunk.

Register OTS_SOUTNWT counts attempts to access a network path from an incoming trunk or an originating line. The system sends the network path to a selected trunk.

Register OUTMTCHF and OTS_SOUTMFL count first-trial failures.

Register OUTMTCHF and SOTS_SOUTRMFL count second-trial failures.

Register SOTS_SOUTMFL counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk.

Register SOTS_SOUTNWT counts incoming or originating calls intended for a specified outgoing or test trunk.

Register SOTS_SOUTRMFL counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

The following calculation represents the relationship among the above-mentioned registers:

Σ TRK_OUTMTCHF = OTS_SOUTMFL + SOTS_SOUTRMFL

Associated logs

The system generates NET130 if the system cannot find a network path.

Extension registers

There are no extension registers.

Register OUTTRMLU

Outgoing terminal traffic (OUTTRMLU)

Register OUTTRMLU counts outgoing terminal calls for which the first digit received is KP or KP1.

The system generates this register in office types OFF200300 and OFF300.

Register OUTTRMLU release history

Register OUTTRMLU was introduced before BCS20.

BCS20

Register OUTTRMLU changes from a usage register to a peg register. This register counts one time for each call.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register OUTTRNSU

Outgoing transit traffic (OUTTRNSU)

OUTTRNSU counts outgoing transit calls for which the first digit received is KP2. The system generates this register in office types OFF200300 and OFF300.

Register OUTTRNSU release history

Register OUTTRNSU was introduced before BCS20.

BCS20

Register OUTTRNSU changes from a usage register to a peg register. This register counts one time for each call.

Associated registers

There are no associated registers.

Associated logs

There are no associated registers.

OM group TRK (continued)

Extension registers

There are no extension registers.

Register PRERTEAB

Preroute abandon (PRERTEAB)

Register PRERTEAB counts incoming attempts the system abandons before the system can complete routing. The system generates this register for all office types that are correct.

Register PRERTEAB release history

Register PRERTEAB was introduced before BCS20.

Associated registers

Register OFZ_INABNC counts incoming calls the subscriber abandons.

Register OFZ_INABNM counts incoming calls the switch abandons.

The following calculation represents the relationship among the above-mentioned registers:

Σ TRK_PRERTEAB = OFZ_INABNM + OFZ_INABNC

This relationship does not apply to calls that originate from a mobile telephone exchange (MTX).

Register OTS_INCABNC counts incoming calls the subscriber abandons.

Register OTS_INCABNM counts incoming calls the switch abandons.

The following calculation represents the relationship among the above-mentioned registers:

Σ TRK_PRERTEAB = OTS_INCABNM + OTS_INCABNC

This relationship does not apply to calls originating from a Mobile telephone.

Associated logs

The system generates register TRK113 if the system encounters problems during call processing of a trunk-to-trunk call.

The system generates TRK116 if the system cannot determine the call destination during multifrequency reception for an incoming call.

Extension registers

There are no extension registers.

Register PREU

Protective reservation (PRE) usage (PREU)

Register PREU is a usage register. Every 100 s the system scans the trunk group. This register records if the system turns the PRE on for a two-way trunk group.

The system generates this register for office types that are correct.

Register PREU release history

Register PREU was introduced before BCS20.

BCS33

When the office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs. The command OMSHOW on the ACTIVE class converts the usage count before the system displays the count. The value in the active registers does not alter and remains in CCS.

BCS20

Software change provides usage counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

The system generates NWM101 when the system activates or deactivates PRE for a trunk group.

Extension registers

There are no extension registers.

Register Q33FLT

Q33 fault (Q33FLT)

Register Q33FLT counts Q33 circuit failures that occur on a given trunk. Datafill for this trunk appears in table TRKSGRP with the Q33SUP option. These faults occur when AB bits of time slot 16 are set to 11.

Register Q33FLT release history

Register Q33FLT was introduced in BCS35.

OM group TRK (continued)

Associated registers

There are no associated registers.

Associated logs

The system generates TRK149 when a Q33 failure occurs on a given trunk.

Extension registers

There are no extension registers.

Register SBU

System busy usage (SBU)

Register SBU is a usage register. Every 100 s the system scans the trunk group. This register records if a trunk is in one of the following states:

- remote busy
- peripheral module busy
- system busy
- carrier fail
- deloaded

The system generates this register for office types that are correct.

Register SBU release history

Register SBU was introduced before BCS20.

BCS33

When the office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs. The command OMSHOW on the ACTIVE class converts the usage count before the system displays the count. The value in the active registers does not alter and remains in CCS.

BCS20

Software change provides usage counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK106 if a self-test on trunk equipment fails.

The system generates TRK109 when a self-test on a DS-1 facility fails.

Extension registers

There are no extension registers.

Register TANDEM

TANDEM

Register TANDEM counts incoming calls on a trunk group that first routes to an outgoing trunk group. Register TANDEM increases before the system determines if the outgoing trunk group is busy, or if a junctor path is available. The system generates this register for office types that are correct, except OFF300.

Register TANDEM release history

Register TANDEM was introduced before BCS20.

Associated registers

Register OFZ_INOUT counts incoming calls that first route to other trunks, TOPS, AOSS, and terminating test lines.

The following calculation represents the relationship among the above-mentioned registers:

OFZ_INOUT + (OFZ_INOUT2 $\times$ 65536) - (trunk-to-TOPS calls)

= Σ TRK_TANDEM

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TOTU-U.S. and Australia only

Total usage (TOTU)

Register TOTU is a usage register. Every 100 s the system scans the trunk group and register TOTU records if any trunk in the group is busy.

The system generates register TOTU in the following office types:

- OFF100
- OFF100G
- OFFCOMB

OM group TRK (continued)

- OFFCOMBLWW
- OFFCOMBTOPS
- OFF200
- OFF200TOPS
- OFF250
- OFF100OESD
- OFF200OESD
- OFFCOMBOESD

Register TOTU release history

Register TOTU was introduced before BCS20.

BCS33

When the office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs. The command OMSHOW on the ACTIVE class converts the count before the system displays the count. The value in the active registers does not alter and remains in CCS.

BCS27

Register TOTU is included in OFF250 offices.

BCS20

Software change provides usage counts in CCS or deci-erlangs.

Associated registers

Register MBU counts manual busy trunks.

Register SBU counts system busy trunks.

Register TRU counts call processing busy trunks.

TOTU = TRU + SBU + MBU

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TRU

Traffic busy usage (TRU)

Register TRU is a usage register. Every 100 s the system scans the trunk group. This register records if a trunk in the group is in one of the following states:

- call processing busy (TK_CP_BUSY)
- call processing busy deload (TK_CP_BUSY_DELOAD)
- lockout (TK_LOCKOUT)

The system generates this register for office types that are correct.

Register TRU release history

Register TRU was introduced before BCS20.

BCS33

When the office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs. The command OMSHOW on the ACTIVE class converts the count before the system displays the count. The value in the active registers does not alter and remains in CCS.

BCS20

Software change provides usage counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TRU2WIN

Incoming two-way trunk usage (TRU2WIN)

Register TRU2WIN is a usage register. Every 100 s the system scans the trunk group. This register records if a two-way trunk in a group is in one of the following states:

- call processing busy (TK_CP_BUSY)
- call processing busy deload (TK_CP_BUSY_DELOAD)
- lockout (TK_LOCKOUT)

The system generates register TRU2WIN for office type DMS250.

OM group TRK (end)

Register TRU2WIN release history

Register TRU2WIN was introduced in BCS29.

BCS33

When the office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs. The command OMSHOW on the ACTIVE class converts the count before the system displays the count. The value in the active registers does not alter and remains in CCS.

Associated registers

Register TRU is a usage register. This register scans the trunk group every 100 s and records if any trunk in a trunk group is call processing busy.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TRU2WIN release history

Register TRU2WIN was introduced in BCS29.

BCS33

When the office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs. The command OMSHOW on the ACTIVE class converts the count before the system displays the count. The value in the active registers does not alter and remains in CCS.

Associated registers

Register TRU is a usage register. This register scans the trunk group every 100 s and records if any trunk in a trunk group is call processing busy.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group TRK2

OM description

Trunk group 2

The OM group TRK2 is a continuation of TRK, and provides more information on trunk traffic.

Release history

SN06 (DMS)

Feature 89008458 added register RINGING to OM group TRK2.

MMP15

MMP15 introduced OM group TRK2.

Registers

OM group TRK2 registers appear on the MAP terminal as follows:

```
NUNA        NBSY        NORGOUT     NORGOUTC
NORGOUTU    NINCTRM     NINCTRMC    NINCTRMU
TANDEMC     TANDEMU     NALTRET     NALTRETU
AVHOLD      ANSSZG      RINGING
```

Group structure

OM group TRK2 provides one tuple for each trunk group.

Key field:
COMMON_LANGUAGE_NAME

Info field:
OM2TRKINFO

OM2TRKINFO is made up of three parts: TRKDIR, NCCT, and NWCCT. TRKDIR is the trunk group direction. The fixed TRKDIR for TRK are:

- IC: incoming trunk
- OG: outgoing trunk
- 2W: 2-way trunk

NCCT is the total number of trunk circuits in the group. NWCCT is the number of trunk circuits that are available for service at the end of the reporting period.

Tables TRKNAME and OFCSTD must be datafilled. The administrative number associated with a trunk group is datafilled in field ADNUM in table TRKNAME.

Related OM groups

TRK: Trunk group

OTS: Office traffic summary

OTS2: Office traffic summary 2

OFZ: Office traffic summary

The OM group TRK2 is a continuation of TRK, and provides more information on trunk traffic.

Office-wide traffic summaries for trunks are given in OM groups OFZ, OTS and OTS2.

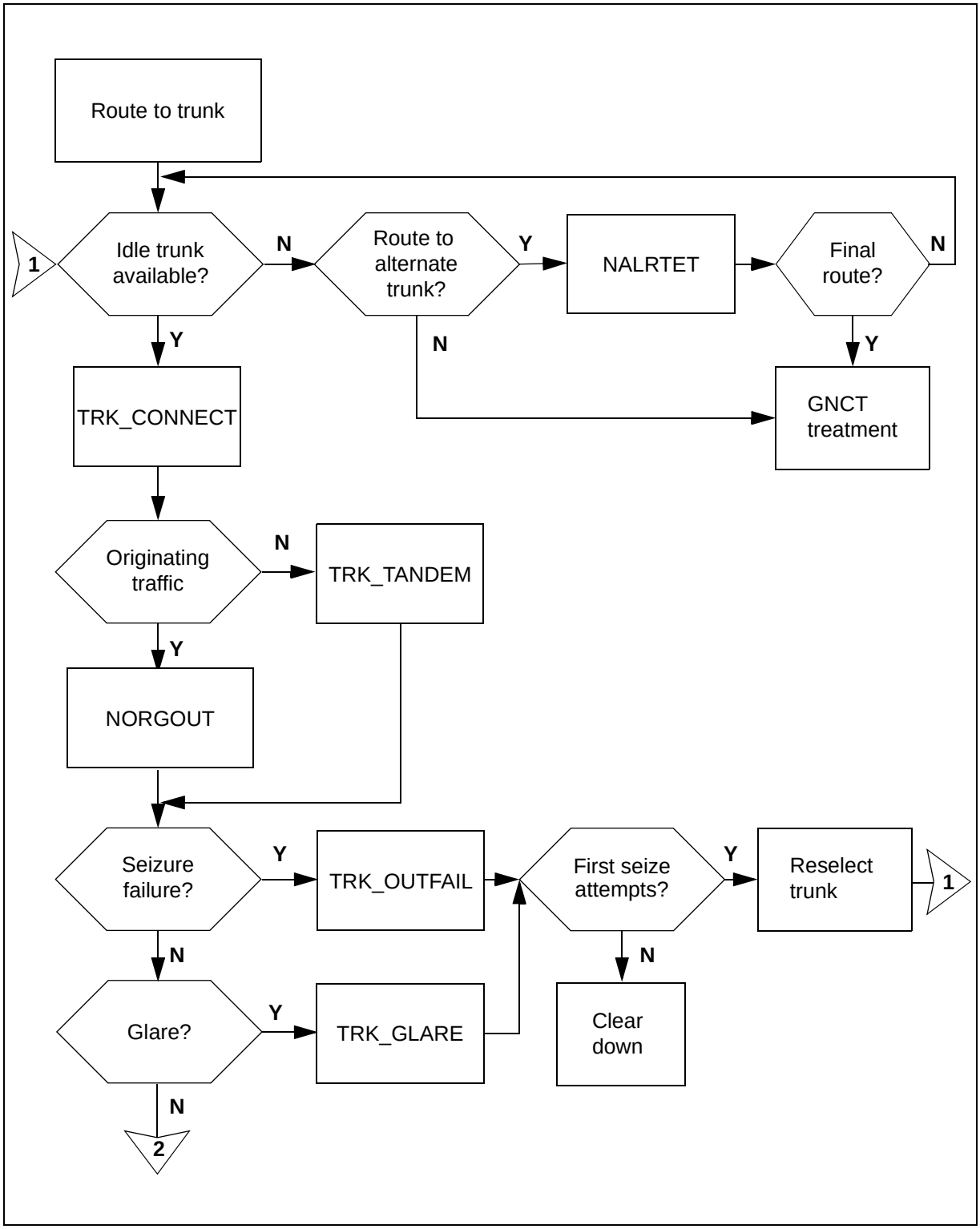
Related functional groups

None

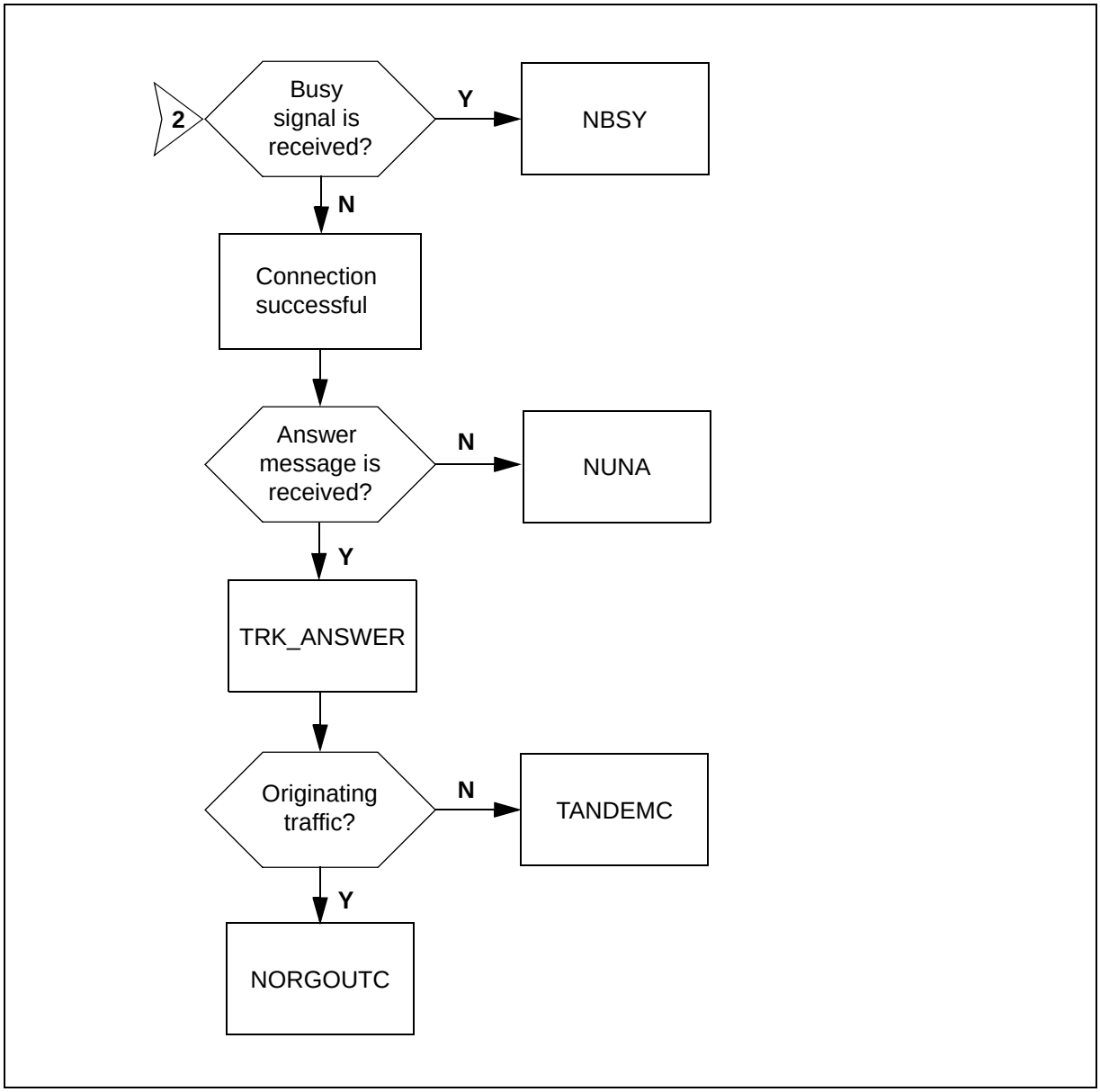
Related functionality codes

None

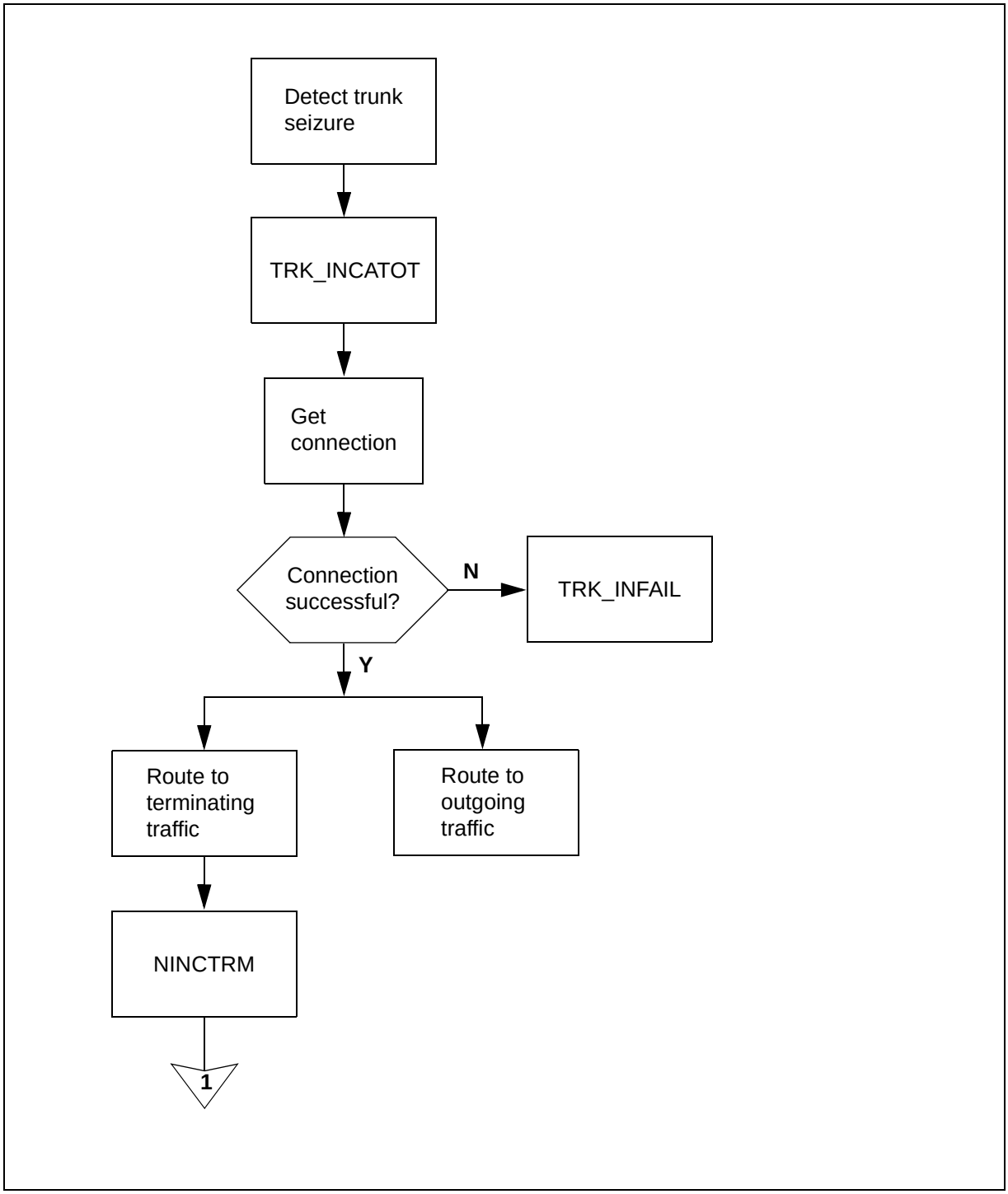
OM group TRK2 registers: Outgoing traffic



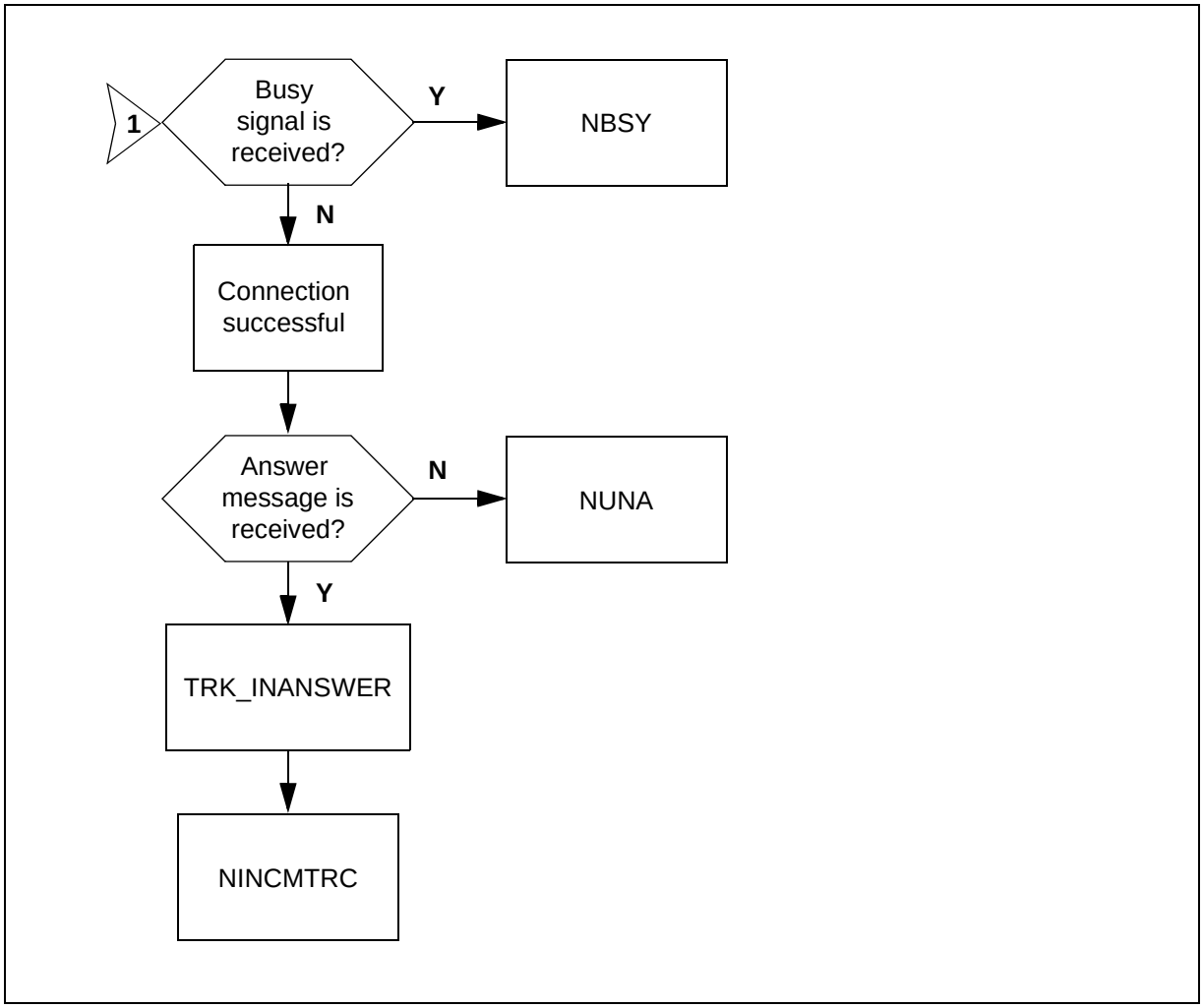
OM group TRK2 registers: Outgoing traffic (continued)



OM group TRK2 registers: Incoming traffic



OM group TRK2 registers: Incoming traffic (continued)



Register ANSSZG

Answer to seizure ratio

Register ANSSZG measures the ratio of answer to seizure as a percentage for each trunk group. Register ANSSZG is calculated using the following formula for a duration of 100 seconds.

ANSSZG = [(ANSWER + INANSWER) × 100] / (CONNECT + INCATOT)

Register ANSSZG release history

MMP15 introduced register ANSSZG.

Related registers

Registers ANSWER, INANSWER, CONNECT, and INCATOT in OM group TRK.

Related logs

None

Extension registers

None

Register AVHOLD

Average trunk holding time

Register AVHOLD counts the average trunk holding time for each trunk group. Register AVHOLD register is calculated using the following formula for a duration of 100 seconds.

AVHOLD = (TRU × 100) / (NATTMPT + INCATOT - NOVFLATB)

Register NUNA release history

MMP15 introduced register AVHOLD.

Related registers

Registers TRU, NATTMPT, INCATOT, and NOVFLATB in OM group TRK.

Related logs

None

Extension registers

None

Register NALRTET

Number of alternated routed calls on trunk

Register NALRTET counts the number of calls for each trunk group that are routed to an alternate trunk because of trunk overflows. Register NALRTET counts rerouted calls, but not reattempted calls.

Register NALRTET release history

MMP15 introduced register NALRTET.

Related registers

None

Related logs

None

Extension registers

None

Register NALRTETU

Number of alternately routed calls usage register

Register NALRTETU is a usage register that shows the trunk usage for each trunk group for calls that are successfully routed to an alternate trunk.

Use the command `OMSHOW TRK class TOTAL` at CI level to display the office-wide value for this register.

Register NALRTETU release history

MMP15 introduced register NALRTETU.

Related registers

None

Related logs

None

Extension registers

None

Register NBSY

Number of busy calls

Register NBSY counts the number of busy calls for each trunk group. Register NBSY increases when a busy tone or signal is received on a trunk group to indicate that the called party's line is busy.

Register NBSY counts only outgoing ISUP and R2 calls, and increases when the busy tone is received.

Register NBSY release history

MMP15 introduced register NBSY.

Related registers

None

Related logs

None

Extension registers

None

Register NINCTRM

Number of incoming to terminating (trunk to line) connections

Register NINCTRM counts the number of incoming calls on a trunk group that are initially routed to a terminating line. Register NINCTRM is incremented before it is known if the terminating line is busy, or if a junctor path is available.

Use the command `OMSHOW TRK class TOTAL` at CI level to display the office-wide value for this register.

Register NINCTRM release history

MMP15 introduced register NINCTRM.

Related registers

None

Related logs

None

Extension registers

None

Register NINCTRMC

Number of incoming to terminating (trunk to line) conversations

Register NINCTRMC counts the number of incoming answered calls on a trunk group that are routed to a terminating line. Register NINCTRMC is incremented when an answer line signal is received from the terminating line after the incoming to terminating call connection.

Register NINCTRMC release history

MMP15 introduced register NINCTRMC.

Related registers

None

Related logs

None

Extension registers

None

Register NINCTRMU

Number of incoming to terminating (trunk to line) answered calls usage register

Register NINCTRMU is a usage register that shows the number of trunk to line answered calls for each trunk group. Register NINCTRMU measures traffic in the answered state for each trunk group.

Use the command `OMSHOW TRK class TOTAL` at CI level to display the office-wide value for this register.

Register NINCTRMU release history

MMP15 introduced register NINCTRMU.

Related registers

None

Related logs

None

Extension registers

None

Register NORGOUT

Number of originating to outgoing (line to trunk) connections

Register NORGOUT counts the number of outgoing calls on a trunk group that are received from an originating line.

Use the command `OMSHOW TRK class TOTAL` at CI level to display the office-wide value for this register.

Register NORGOUT release history

MMP15 introduced register NORGOUT.

Related registers

None

Related logs

None

Extension registers

None

Register NORGOUTC

Number of originating to outgoing (line to trunk) conversations

Register NORGOUTC counts the number of outgoing answered calls on a trunk group that are received from an originating line. Register NORGOUTC is incremented when an answer signal is received from the outgoing trunk after the call connection from originating to outgoing.

Register NORGOUTC release history

MMP15 introduced register NORGOUTC.

Related registers

None

Related logs

None

Extension registers

None

Register NORGOUTU

Number of originating to outgoing (line to trunk) answered calls usage register

Register NORGOUTU is a usage register that shows the number of line to trunk answered calls for each trunk group. Register NORGOUTU measures traffic in the answered state for each trunk group.

Use the command `OMSHOW TRK class TOTAL` at CI level to display the office-wide value for this register.

Register NORGOUTU release history

MMP15 introduced register NORGOUTU.

Related registers

None

Related logs

None

Extension registers

None

Register NUNA

Number of unanswered calls

Register NUNA counts the number of unanswered calls for each trunk group. Register NUNA increases when no answer signal is received after call connection on a trunk group.

Register NUNA counts only ISUP trunk calls, and increases if no answer message is received after the Address Complete Message (ACM).

Register NUNA release history

MMP15 introduced register NUNA.

Related registers

None

Related logs

None

Extension registers

None

Register RINGING

Ringing

Register RINGING counts the number of connected calls used for measurement of the outgoing trunk (CISUP or CTUP). Register RINGING is incremented only when the ACM message is received on tandem in a non-fast answer call.

Register RINGING is updated properly only when the following office parameters are turned on:

- ACTIVATE_OMEF in table OFCVAR
- ISDN_ACCIND in table AMAOPTS

Register RINGING release history

SN06 introduced register RINGING.

Related registers

None

Related logs

None

Extension registers

None

Register TANDEMC

Tandem conversations

Register TANDEMC counts incoming answered calls on a trunk group that are routed to an outgoing trunk group. Register TANDEMC is incremented when an answer signal is received from the outgoing trunk group after the call connection from incoming to outgoing.

Register TANDEMC release history

MMP15 introduced register TANDEMC.

Related registers

None

Related logs

None

Extension registers

None

Register TANDEMU

Tandem answered calls usage register

Register TANDEMU is a usage register that shows the number of trunk to trunk answered calls for each trunk group. Register TANDEMU measures traffic in the answered state for each trunk group.

Use the command `OMSHOW TRK class TOTAL` at CI level to display the office-wide value for this register.

Register TANDEMU release history

MMP15 introduced register TANDEMU.

Related registers

None

Related logs

None

Extension registers

None

OM group TRKDCTS

OM description

Destination code traffic summary

OM group TRKDCTS records traffic data about office trunk groups datafilled in table TRKDCTS. The data is sorted by destination code.

Registers record the following events for all signals:

- total traffic to a specified destination code and trunk group (TRFUT)
- number of call attempt (NCAT)
- number of successful call (NSCT)
- number of answered call (NANST)
- answer usage (ANSUT)

A register increments for the following event for P-R2 signals:

- seizures (NSZGT)
- Registers increment for the following events for PTUP, ANSI7+, and ETSI ISUP v1 signals:
- number of IAM or IAI messages (NIAMIAIT)
- number of NUB or UBM messages (NNUBUBMT)
- number of messages not received (NNMAFAMT)

Release history

SN06 (DMS)

Added register ANSUT and enhancements to registers NSCT and NANST for China market requirement supporting interworkings CISUP (China ISUP User Part) and CTUP (China Telephone User Part) for activity 89008458.

APC010

Feature AU2916, DCTS and Answer OM Enhancements, increased the number of tuples OM group TRKDCTS provides for destination codes.

APC009

OM group TRKDCTS was introduced to APC100 in APC009.

BCS34

OM group TRKDCTS was introduced in BCS34 to the DMS100i product.

Registers

OM group TRKDCTS registers display on the MAP terminal as follows:

```
NCAT        NSZGT       NIAMIAIT        NSCT
NANST       TRFUT       NNUBUBMT        NNMAFAMT
ANSUT
```

Group structure

OM group TRKDCTS provides one tuple per destination code (maximum 2048)

Key field:
TRUNK_DEST_CODE_NAME.

This field numbers from 0 to 2047.

Info field:
TRKDCTSINFO

The info field contains:

- the trunk group name
- the number of working trunk circuits
- the destination code

Associated OM groups

OM group DCTS

Associated functional groups

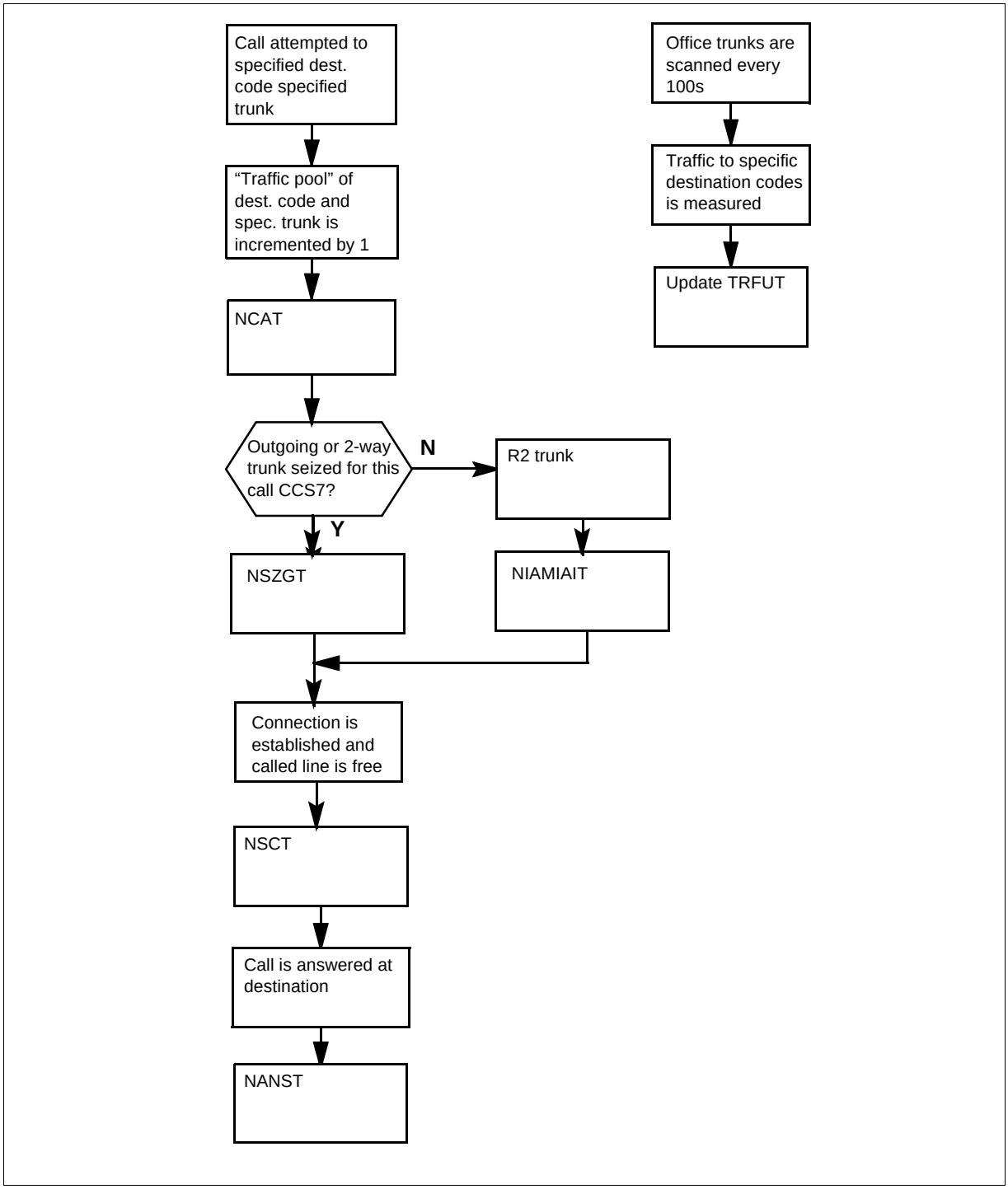
None

Associated functionality codes

The functionality codes associated with OM group TRKDCTS are shown in the following table.

Functionality	Code
AUS Interconnect OMs	AUS00045

OM group TRKDCTS registers



Register ANSUT

Answer usage on a specified office trunk.

ANSUT counts total traffic with answer measured every 100 seconds as per destination code traffic measurement and per outgoing trunk groups.

ANSUT is updated properly only when the following office parameters are turned on:

- ACTIVATE_OMEF in table OFCVAR
- ENABLE_OM_ANS_PEGGING in table OFCENG

Register ANSUT release history

ANSUT was introduced to the DMS100 product in SN06.

Associated registers

None

Associated logs

None

Register NANST

Number of answered calls on a specified office trunk

NANST counts each time a call is answered after routing to the specified destination code on a specified office trunk.

NANST is incremented for an outgoing trunk (CISUP or CTUP) when a call is answered on tandem.

NANST is updated properly only when the following office parameter is turned on:

- ISDN_ACCIND in table AMAOPTS

Register NANST release history

NANST was introduced to the DMS100i product in BCS34.

NANST was introduced to the APC100 product in the APC009 release.

NANST was enhanced for China OM Requirement in SN06.

Associated registers

None

Associated logs

None

Register NCAT

Number of call attempts on specified office trunks

NCAT counts each time a call attempt routes to the specified destination code on a specified office trunk.

Register NCAT release history

NCAT was introduced to the DMS100i product in BCS34.

NCAT was introduced to the APC100 product in the APC009 release.

Associated registers

None

Associated logs

None

Register NSCT

Number of successful calls on a specified office trunk

NSCT counts each time a connection is established on the specified trunk and then a Subscriber Free line signalling message is received for the calls routed to a specified destination code.

NSCT is incremented for an outgoing trunk (CISUP or CTUP) when the ACM message is received on tandem.

NSCT is updated properly only when the following office parameter is turned on:

- ISDN_ACCIND in table AMAOPTS

Register NSCT release history

NSCT was introduced to the DMS100i product in BCS34.

NSCT was introduced to the APC100 product in the APC009 release.

NSCT was enhanced for China OM Requirement in SN06.

Associated registers

None

Associated logs

None

Register NSZGT

Number of seizures on a specified office trunk

NSZGT counts each time any of the non-CCS7 trunks is seized for the calls routed to a specified destination code.

Register NSZGT release history

NSZGT was introduced to the DMS100i product in BCS34.

NSZGT was introduced to the APC100 product in the APC009 release.

Associated registers

None

Associated logs

None

Register TRFUT

Total traffic usage of a specified office trunk

TRFUT is updated every 100[hairsp]s to record the total traffic to a specified destination code on a specified office trunk.

Register TRFUT release history

TRFUT was introduced to the DMS100i in BCS34.

TRFUT was introduced to the APC100 product in the APC009 release.

Associated registers

None

Associated logs

None

Register NIAMIAIT

Total number of IAM or IAI messages on the trunk.

This register increments for PTUP, ANSI7+, and ETSI ISUP v1 calls only.

This register is incremented for CTUP calls only.

Register NIAMIAIT release history

NIAMIAIT was introduced to the DMS100i product in BCS34.

NIAMIAIT was introduced to the APC100 product in the APC009 release.

Associated registers

None

Associated logs

None

Register NNUBUBMT

Total number of NUB or UBM messages on the trunk (pegged calls only).

This register is incremented for CTUP calls only.

This register increments for PTUP, ANSI7+, and ETSI ISUP v1 calls only.

Register NNUBUBMT release history

NNUBUBMT was introduced to the DMS100i product in BCS34.

NNUBUBMT was introduced to the APC100 product in the APC009 release.

Associated registers

None

Associated logs

None

Register NNMAFAMT

Contains the total number of messages not received after a FAM message is sent on the trunk.

This register is incremented for CTUP calls only.

This register increments for PTUP, ANSI7+, and ETSI ISUP v1 calls only.

Register NNMAFAMT release history

NNMAFAMT was introduced to the DMS100i product in BCS34.

NNMAFAMT was introduced to the APC100 product in the APC009 release.

Associated registers

None

Associated logs

None

OM group TRKSQOSOM

OM description

TRKQOSOM (Trunk Quality Of Service Operational Measurement) presents QOS threshold crossing counts on a per trunk group basis. The counts presented are JITTER, DELAY, and PKTLOSS (packet loss).

Release history

SN06 (DMS)

The OM group TRKSQOSOM was introduced in SN06.

Registers

The OM group TRKQOSOM registers appear on the MAP terminal as follows:

```
PKTLOSS          JITTER       DELAY
```

Group structure

OM group provides one tuple for each GWC based trunk group.

Key field:
Common Language Name (CLLI) A value corresponding to the entries in table CLLI for which GWC members have been datafilled.

Info field:
There is no info field.

Associated OM groups

None

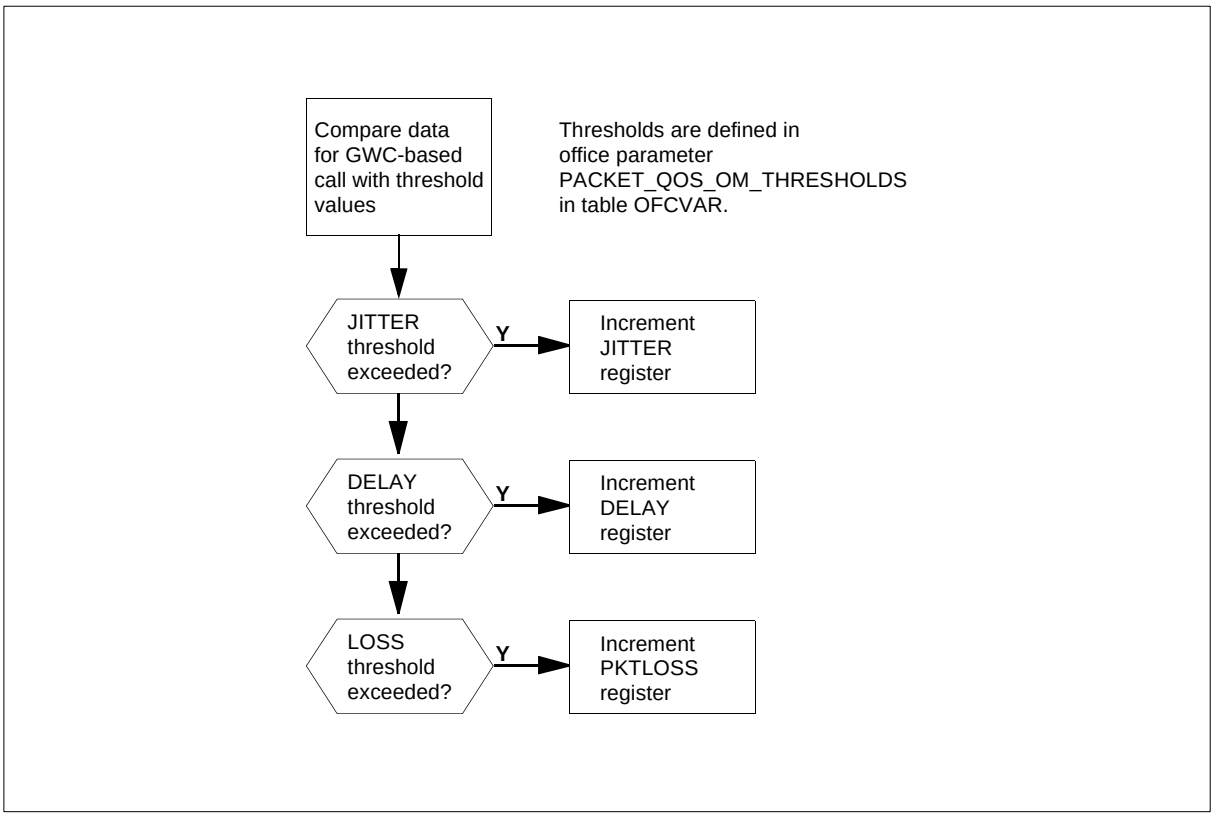
Associated functional groups

None

Associated functionality codes

Not applicable

OM group TRKQOSOM registers, logic flow



Register JITTER

JITTER is a peg register used to indicate that the jitter QOS statistic for a call has exceeded the datafilled JITTER threshold. The threshold is defined in office parameter PACKET_QOS_OM_THRESHOLDS in table OFCVAR.

Register JITTER release history

The register was introduced in ISN06/SN06.

Associated registers

DELAY, PKTLOSS. There are no interactions.

Extension registers

None

Associated logs

There are no associated logs.

Register DELAY

DELAY is a peg register used to indicate that the delay QOS statistic for a call has exceeded the datafilled DELAY threshold. The threshold is defined in office parameter PACKET_QOS_OM_THRESHOLDS in table OFCVAR.

Register DELAY release history

The register was introduced in ISN06/SN06.

Associated registers

JITTER, PKTLOSS. There are no interactions.

Extension registers

None

Associated logs

There are no associated logs.

Register PKTLOSS

PKTLOSS is a peg register used to indicate that the packet loss QOS statistic for a call has exceeded the datafilled LOSS threshold. The threshold is defined in office parameter PACKET_QOS_OM_THRESHOLDS in table OFCVAR.

Register PKTLOSS release history

The register was introduced in ISN06/SN06.

Associated registers

JITTER, DELAY. There are no interactions.

Extension registers

None

Associated logs

There are no associated logs.

OM group TRKVERDS

OM descriptions

Trunk verification from a designated station (TRKVERDS)

The OM group TRKVERDS collects information about trunk verification from a designated station (TVDS) calls.

Use the TVDS feature to determine if the system can select a trunk in a trunk group. Also use this feature to determine if the trunk meets audible transmission objectives.

Seven registers count:

- attempts to activate the TVDS feature
- failures to activate the TVDS feature because:
  - — the user enters a trunk group or member number that is not correct
  - — not enough software resources are present
  - — feature link is restricted
- TVDS features dropped by a flash of the hook switch
- trunks that are call processing busy or maintenance busy

Release history

The OM group TRKVERDS was introduced in BCS20.

Registers

The OM group TRKVERDS registers appear on the MAP terminal as follows:

```
TVDSATP         TVDSOVFL        TVDSINV         TVDSCPB
TVDSMANB        TVDSABDN        TVDSFAIL
```

Group structure

The OM group TRKVERDS provides one tuple for each office.

Key field:
There is no Key field.

Info field:
There is no Info field.

The user must datafill the trunk group number in table TVDSTRKS for the trunk group to be correct for TVDS.

Associated OM groups

There are no associated OM groups.

Associated functional groups

There are no associated functional groups.

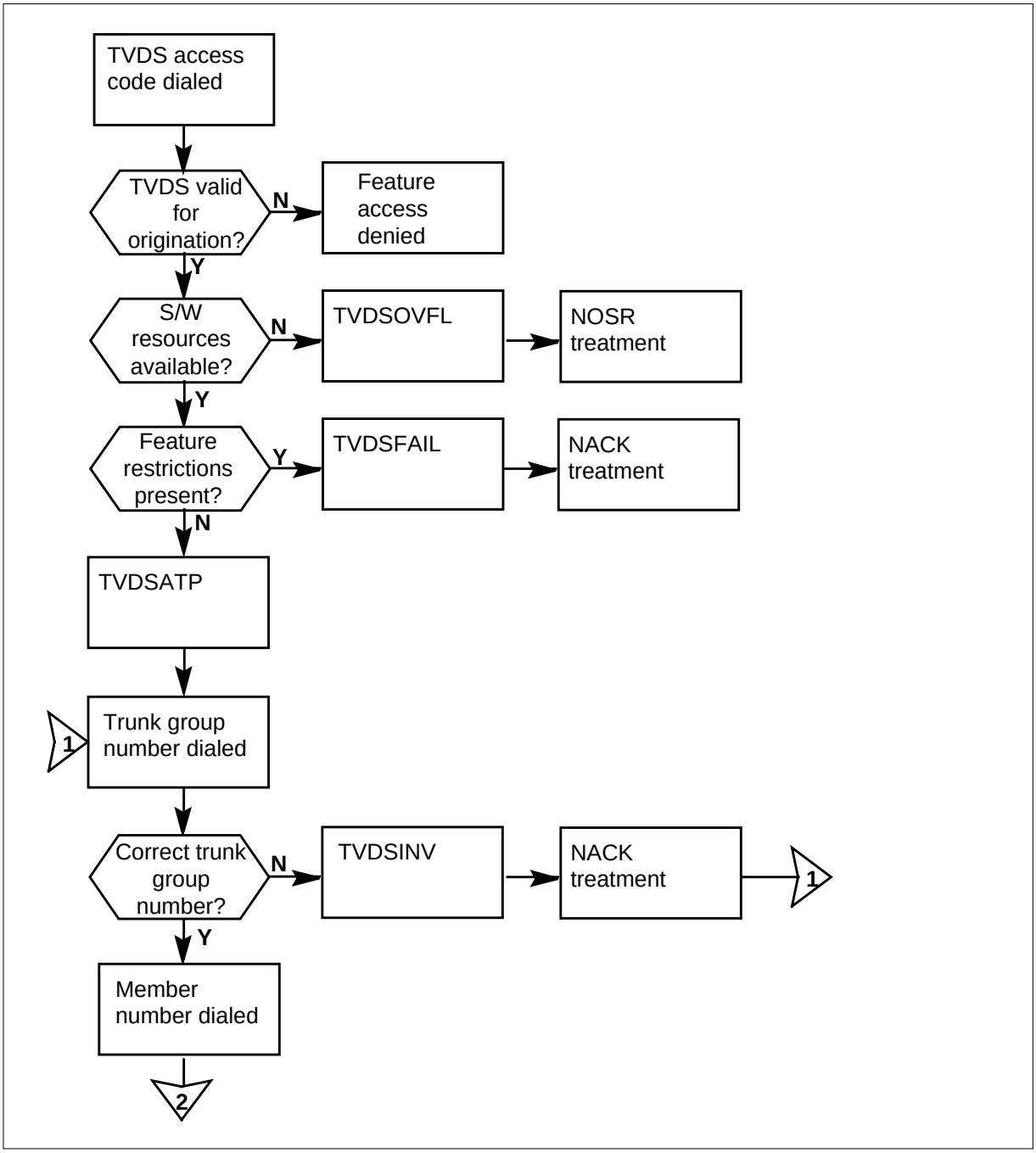
Associated functionality codes

The associated functionality codes for OM group TRKVERDS appear in the following table.

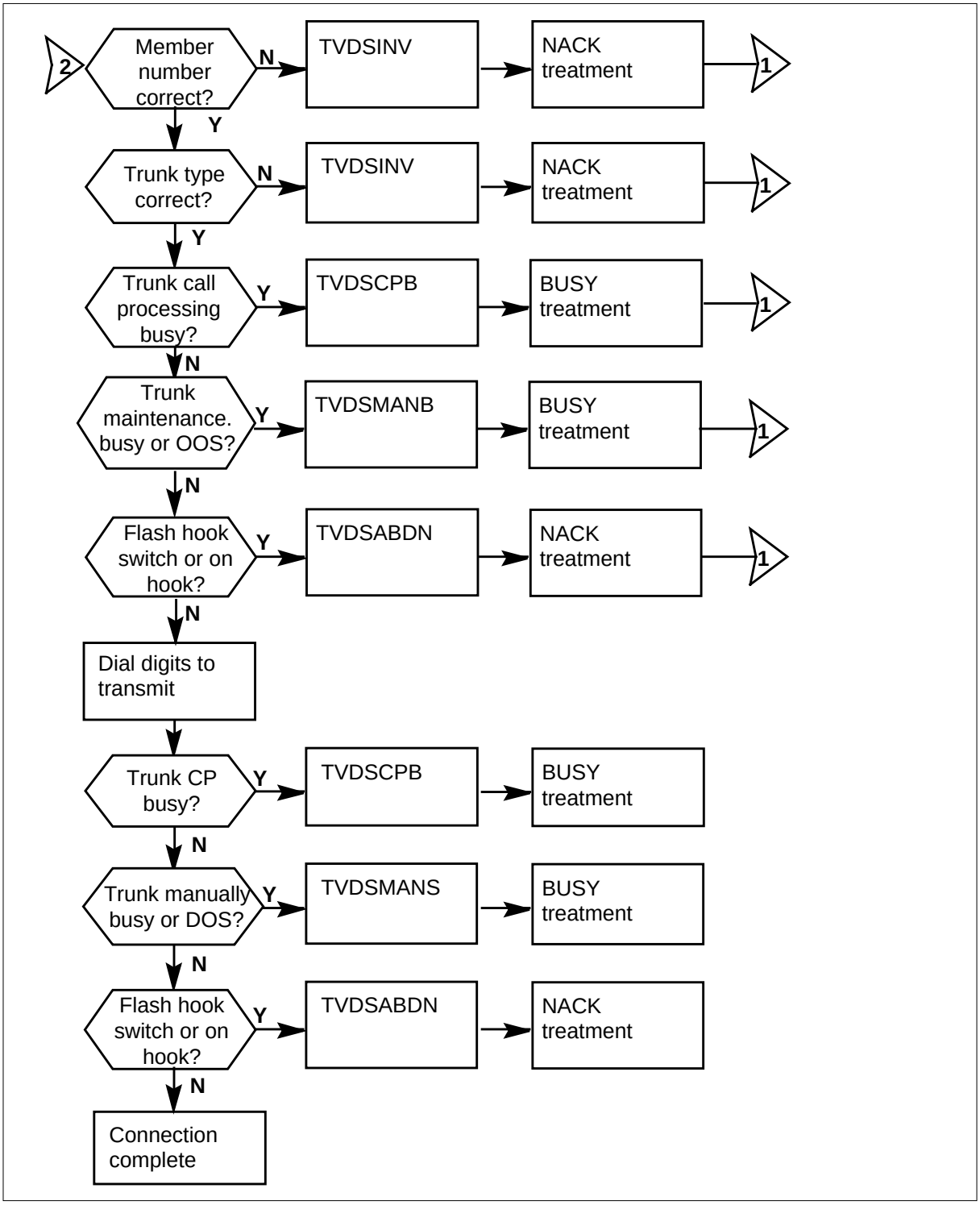
Functionality	Code
IBN Trunk Verification Designated Station	NTX717AB

OM group TRKVERDS (continued)

OM group TRKVERDS registers



OM group TRKVERDS registers (continued)



OM group TRKVERDS (continued)

Register TVDSABDN

Feature abandons (TVDSABDN)

Register TVDSABDN counts trunk verifications that the user abandons when the user flashes the hook switch or goes on hook. The system drops the TVDS feature and the call.

Register TVDSABDN release history

Register TVDSABDN was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TVDSATP

Feature activation attempts (TVDSTAP)

Register TVDSATP counts attempts to activate the TVDS feature caused when users dial the access code.

Access TVDS from a 2500 set or an SL-100 Electronic Telephone Set (ETS). Both sets must be in the correct, customer-designated network class of service (NCOS) the customer designated in table NCOS.

Register TVDSATP release history

Register TVDSATP was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TVDSCPB

Trunk call processing busy (TVDSCPB)

Register TVDSCPB counts attempts to verify a trunk that fail because the trunk is call processing busy.

Register TVDSCPB release history

Register TVDSCPB was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TVDSFAIL

Feature interaction restrictions (TVDSFAIL)

Register TVDSFAIL counts attempts to activate the TVDS feature that fail as a result of feature link restrictions.

Register TVDSFAIL release history

Register TVDSFAIL was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TVDSINV

Invalid trunk group or member number (TVDSINV)

Register TVDSINV counts attempts to activate the TVDS feature that fail. Failure occurs because the trunk group number does not appear in table TVDSTRKS as a correct trunk group for TVDS.

Register TVDSINV also increases if the user enters a member number that is not correct. Register TVDSINV also increases if the user attempts to verify a trunk type that is not correct.

OM group TRKVERDS (continued)

The system uses TVDS to verify any central office or tie trunk that uses dial pulse, Digitone, or multifrequency signaling.

Register TVDSINV release history

Register TVDSINV was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TVDSMANB

Trunk maintenance busy (TVDSMANB)

Register TVDSMANB counts attempts to verify a trunk that fail because the trunk is maintenance busy or out of service.

Register TVDSMANB release history

Register TVDSMANB was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TVDSOVFL

Lack of software resources (TVDSOVFL)

Register TVDSOVFL counts attempts to activate the TVDS feature that fail because the system does not have enough software resources. Software resources include call condense blocks or feature data blocks.

Register TVDSOVFL release history

Register TVDSOVFL was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group TRMSCRND

OM description

Terminating code screened domestic (TRMSCRND)

Register TRMSCRND counts domestic calls from coin stations that the system bills to a domestic credit card. When the system screens these calls, the calls appear as compromised for domestic calls.

Release history

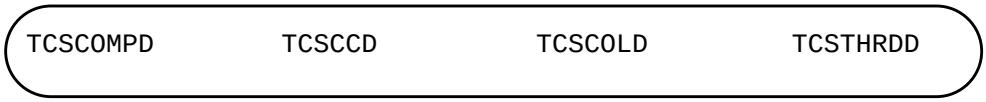
The OM group TRMSCRND was introduced in BCS30.

BCS33

Registers TCSCCD, TCSCOLD, and TCSTHRDD replace register TCSCOMPD. The system sets register TCSCOMPD to zero.

Registers

The OM group TRMSCRND registers appear on the MAP terminal as follows:



Group structure

The OM group TRMSCRND provides one tuple for each office.

Key field:
There is no Key field.

Info field:
There is no Info field.

Associated OM groups

Register TRMSCRNO counts overseas calls from coin stations that the system bills to a domestic credit card. When the system screens these calls, the calls appear as compromised for a call to that country.

Associated functional groups

The following are associated functional groups for the OM group TRMSCRND:

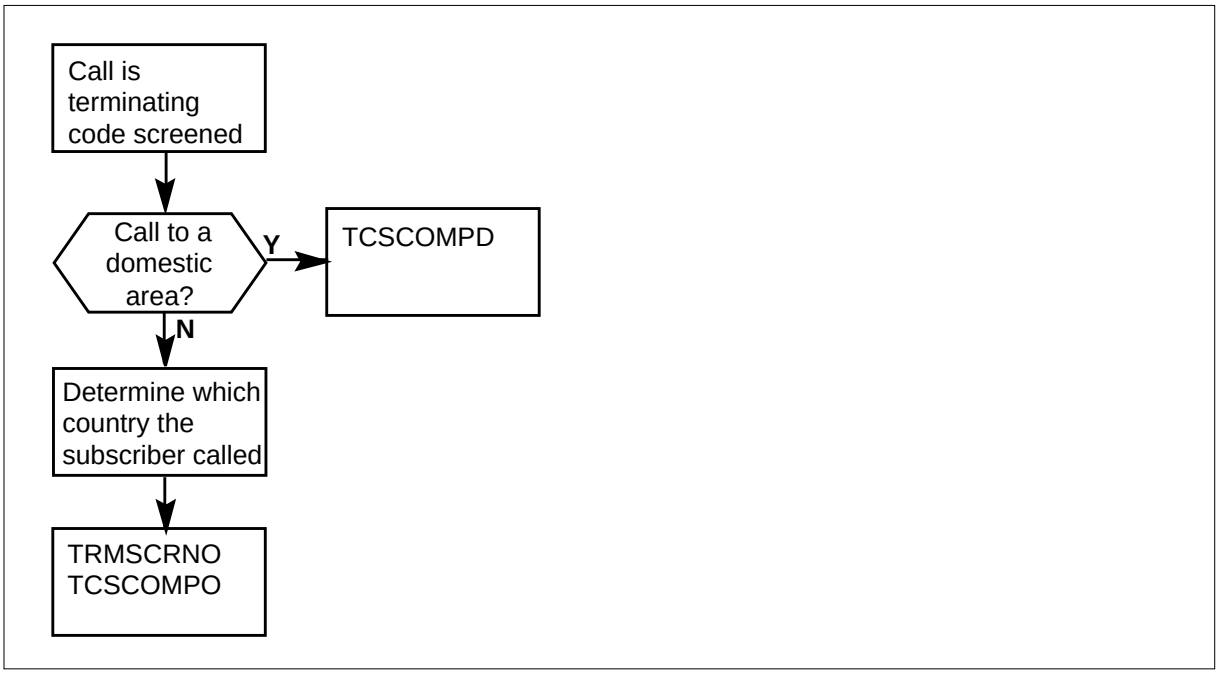
- DMS-200
- TOPS

Associated functionality codes

The associated functionality codes for the OM group TRMSCRND appear in the following table:

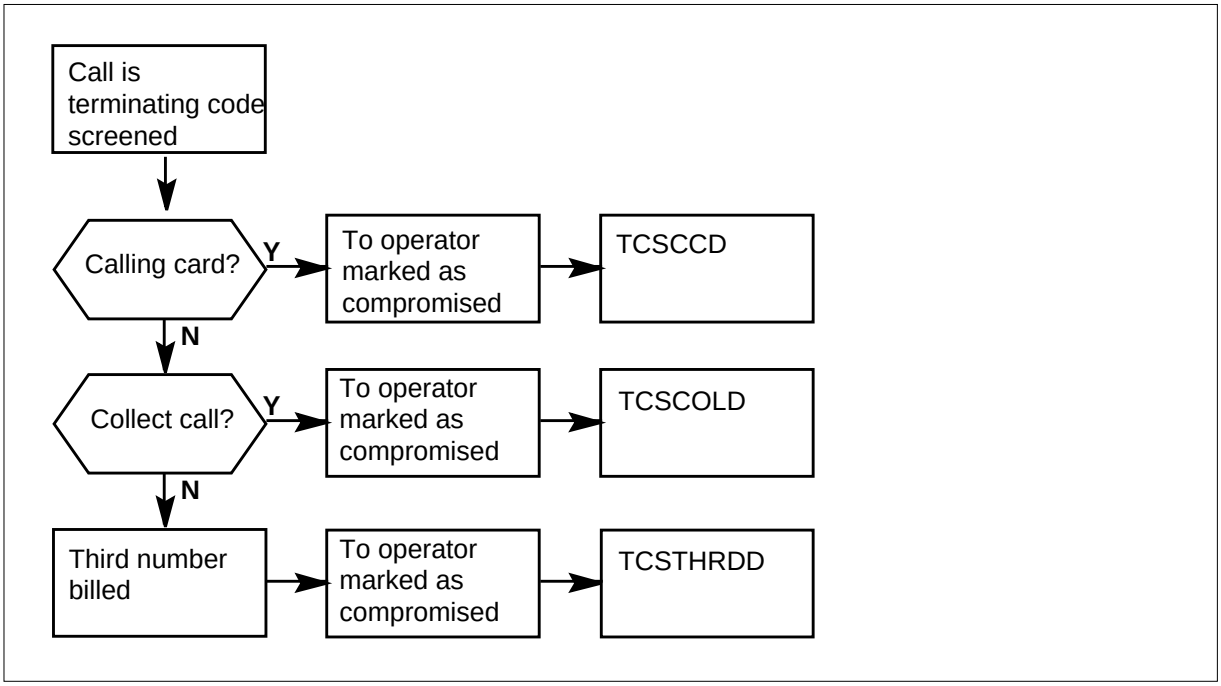
Functionality	Code
Custom Charge Calling	NTX552AB

OM group TRMSCRND registers



OM group TRMSCRND (continued)

OM group TRMSCRND registers (continued)



Register TCSCCD

Terminating code screening credit card screened domestic calls (TCSCCD)

Register TCSCCD counts the number of times the system screens the following calls for terminating codes:

- automatic calling card service or automated alternate billing service (AACS/AABS)
- operator handled calling cards

The system then sends these calls to an operator marked as compromised.

Register TCSCCD release history

Register TCSCCD was introduced in BCS33.

Associated registers

Registers TCSCOLD and TCSTHRDD

Associated logs

There are no associated logs.

Extension registers

There are no associated extension registers.

Register TCSCOMPD

Terminating code screened compromised calls (TCSCOMPD)

Register TCSCOMPD counts domestic calls from coin stations that the system bills to a domestic credit card. When the system screens these calls, the calls appear as compromised for domestic calls. The system routes the call to a TOPS position.

Register TCSCOMPD release history

Register TCSCOMPD was introduced in BCS30.

BCS33

Register set to zero.

Associated registers

There are no associated registers.

Associated logs

The system generates TOPS116 when a terminating code screened call appears as compromised.

Extension registers

There are no extension registers.

Register TCSCOLD

Terminating code screening collect screened domestic calls (TCSCOLD)

Register TCSCOLD counts the number of times the system screens the following calls for terminating codes:

- operator-handled calls
- automated alternate billing services (AABS) collect calls

The system then sends these calls to an operator marked as compromised.

Register TCSCOLD release history

Register TCSCOLD was introduced in BCS33.

Associated registers

Register TCSCCD and TCSTHRDD

OM group TRMSCRND (end)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TCSTHRDD

Terminating code screening third number billing screened domestic calls (TCSTHRDD)

Register TCSTHRDD counts the number of times the system screens the following calls for terminating codes:

- operator-handled calls
- automated alternate billing services (AABS) third-number billed calls

The system then sends these calls to an operator marked as compromised.

Register TCSTHRDD release history

Register TCSTHRDD was introduced in BCS33.

Associated registers

Register TCSCCD and TCSCOLD

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group TRMSCRNO

OM description

Terminating code screened overseas (TRMSCRNO)

The OM group TRMSCRNO counts overseas calls from coin stations that the system bills to a domestic credit card. When the system screens the credit card, the credit card is compromised for a call to that country.

Release history

The OM group TRMSCRNO was introduced in BCS30.

BCS33

Registers TCSCCO, TCSCOLO and TCSTHRDO replace register TCSCOMPO. Register TCSCOMPO set to zero.

Registers

The OM group TRMSCRNO registers appear on the MAP terminal as follows:

TCSCOMPO	TCSCCO	TCSCOLO	TCSTHRDO

Group structure

The OM group TRMSCRNO provides one tuple for each key.

Key field:
COUNTRY_NUMBER_STRING_RANGE is the name of the called overseas country as given in field COUNTRY_NAME in table OVSBILL.

Info field:
There is no info field.

Associated OM groups

The OM group TRMSCRND counts domestic calls from coin stations that the system bills to a domestic credit card. When the system screens the credit card, the credit card is compromised for domestic calls.

Associated functional groups

The functional groups DMS-20 and TOPS associate with OM group TRMSCRNO.

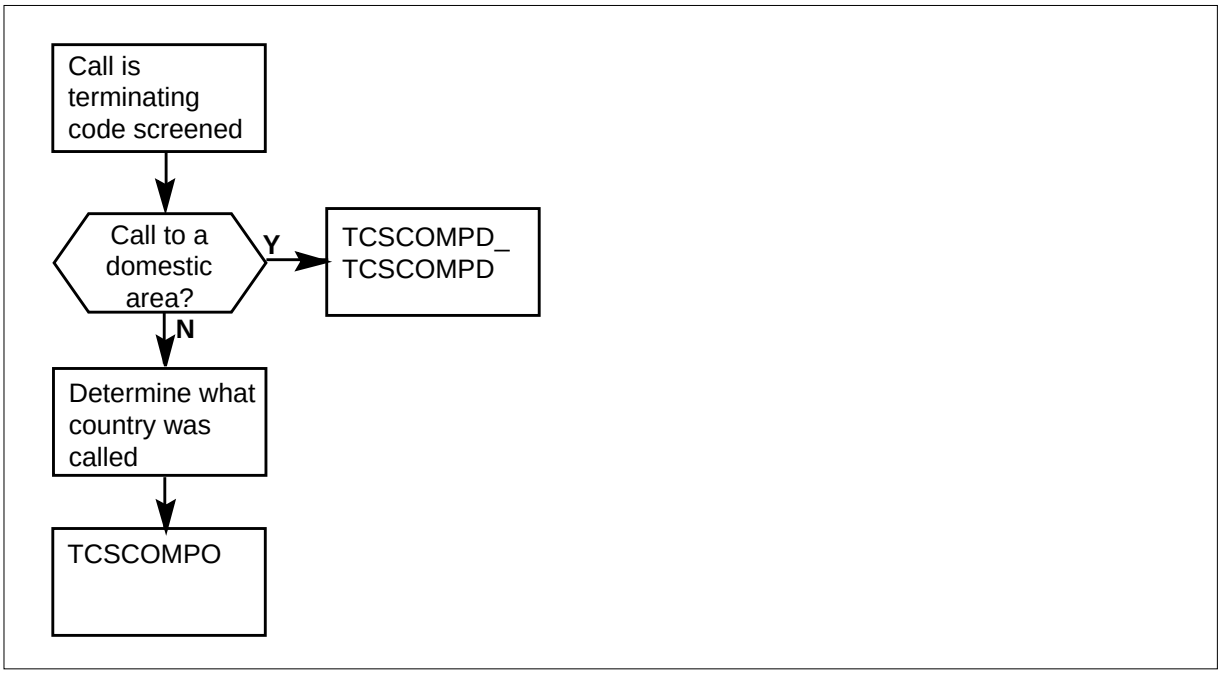
OM group TRMSCRNO (continued)

Associated functionality codes

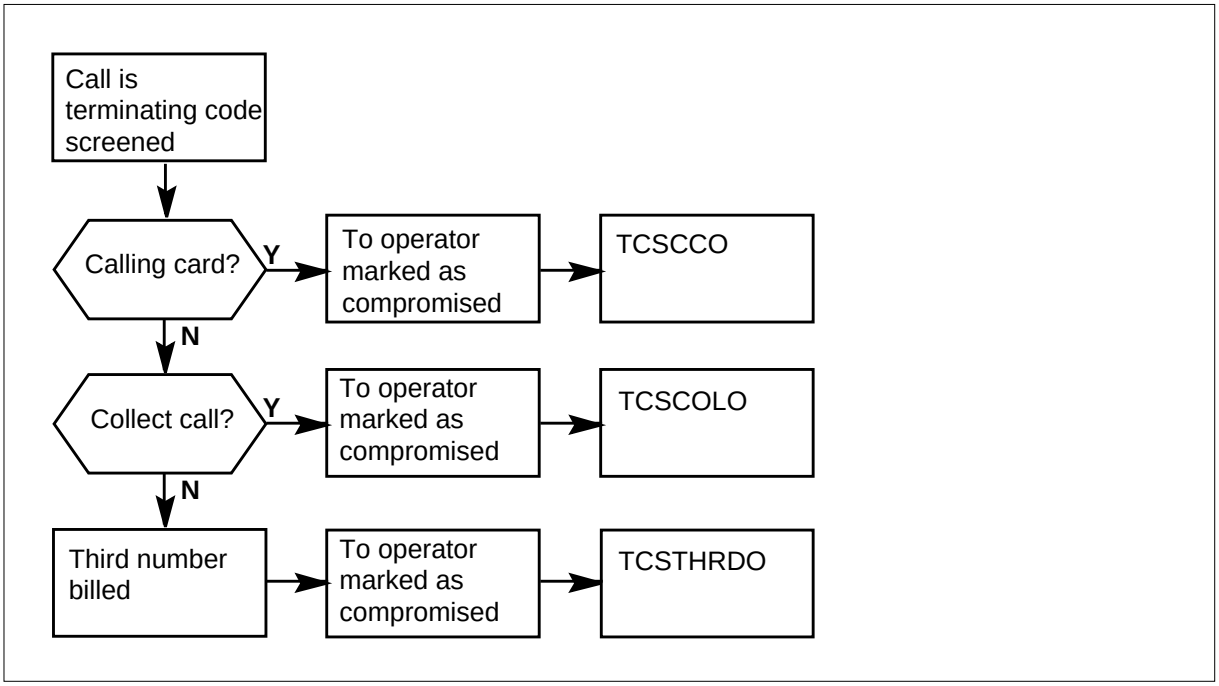
The associated functionality codes for OM group TRMSCRNO appear in the following table.

Functionality	Code
Custom Charge Calling	NTX552AB

OM group TRMSCRNO registers



OM group TRMSCRNO registers (continued)



Register TCSCCO

Terminating code screening credit card screened overseas calls (TCSCCO)

Register TCSCCO counts the number of times the following are terminating code screened:

- automatic calling card service/automated alternate billing service (AACS/AABS) calling cards
- operator-handled calling cards

The register counts the number of times the system sends these to the operator marked as compromised.

Register TCSCCO release history

Register TCSCCO was introduced in BCS33.

Associated registers

Registers TCSCOLO and TCSTHRDO were introduced.

Associated logs

There are no associated logs.

OM group TRMSCRNO (continued)

Extension registers

There are no extension registers.

Register TCSCOMPO

Terminating code screened compromised calls (TCSCOMPO)

Register TCSCOMPO counts overseas calls from coin stations that the system bills to a domestic credit card. When the system screens the credit card, the credit card is compromised for a call to that country. The system routes the call to a TOPS position.

Register TCSCOMPO release history

Register TCSCOMPO was introduced in BCS30.

BCS33

Register is set to zero.

Associated registers

There are no associated registers.

Associated logs

The system generates TOPS116 when a terminating code screened call is compromised.

Extension registers

There are no extension registers.

Register TCSCOLO

Terminating code screening collect screened overseas calls (TCSCOLO)

Register TCSCOLO counts the number of times the following are terminating code screened:

- operator-handled collect calls
- automated alternate billing service (AABS) collect calls

The register counts the number of times the system sends these to the operator marked as compromised.

Register TCSCOLO release history

Register TCSCOLO was introduced in BCS33.

Associated registers

TCSCCO and TCSTHRDO

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TCSTHRDO

Terminating code screening third number billing screened overseas calls (TCSTHRDO)

Register TCSTHRDO counts the number of times the following are terminating code screened:

- operator handled third number calls
- automated alternate billing services (AABS) third number calls

The register counts the times the system sends these calls to an operator marked as compromised.

Register TCSTHRDO release history

Register TCSTHRDO was introduced in BCS33.

Associated registers

Registers TCSCCO and TCSCOLO were introduced.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group TRMTCM

OM description

Customer miscellaneous treatment (TRMTCM)

The OM group TRMTCM counts calls that the system routes to a treatment. The treatment is a result of a customer action, but does not relate to authorization.

The OM group TRMTCM contains one register for each call treatment. The registers are named TCMaaaa, where aaaa is the external treatment abbreviation. The register increases when the system routes a call through the treatment.

Release history

The OM group TRMTCM was introduced before BCS20.

GL04

DMS-100G was added to the following register descriptions: TCMANCT, TCMBLDN, TCMDISC, TCMPDIL, TCMPSIG, and TCMVACT. Treatment added for DMS-100G switch.

BCS36

Performance for DMS-100 international switches added.

BCS31

Register TCMRING was introduced.

BCS29

Registers TCMN9DF, TCMN9OB, and TCMN9NS were introduced.

BCS28

Register TCMVPFX was introduced.

BCS27

Register TCMNTRS, TCMCREJ, TCMUPAB, and TCMCNAD were introduced.

BCS26

Registers TCMCHAN and TCMCHAF were introduced.

Registers

The OM group TRMTCM registers appear on the MAP terminal as follows:

TCMUNDT	TCMPDIL	TCMPSIG	TCMVACT
TCMUNDN	TCMBLDN	TCMOPRT	TCMTRBL
TCMANCT	TCMDISC	TCMATBS	
TCMTDBR	TCMVACS	TCMANTO	TCMCFWV
TCMVCCT	TCMATDT	TCMCBTN	TCMCHAN
TCMCHAF	TCMOSVR	TCMNC8F	TCMNTRS
TCMNCREJ	TCMUPAB	TCMCNAD	TCMVPFX
TCMN9DF	TCMN9OB	TCMN9NS	TCMRING

The following treatments apply to DMS-100 local switching offices: UNDT, PDIL, PSIG, VACT, UNDN, BLDN, OPRT, TRBL, ANCT, DISC, TDBR, CFWV, and RING.

The following treatments apply to DMS-100 international switching offices: UNDT, PDIL, PSIG, VACT, BLDN, TRBL, ANCT, and DISC.

The following treatments apply to DMS-200 toll switching offices: UNDT, PDIL, PSIG, VACT, and UNDN.

The following treatments apply to DMS-100/200 combined local and toll switching offices: UNDT, PDIL, PSIG, VACT, UNDN, BLDN, OPRT, TRBL, ANCT, DISC, TDBR, CFWV, and RING.

The following treatments apply to DMS-300 gateway switching offices: PDIL, PSIG, VACT, and UNDN.

The following treatments apply to DMS-250 tandem switching offices for common carriers: PDIL, PSIG, VACT, VACS, VCCT, ATDT, OSVR, N9DF, N9OB, and N9NS.

The following treatments apply to DMS-MTX Mobile telephone exchanges: UNDT, PDIL, PSIG, VACT, BLDN, and ANTO.

The following treatments apply to originating screening offices with Enhanced 800 Service: CHAN and CHAF.

Group structure

The OM group TRMTCM provides one tuple for each office.

Table TMTCNTL defines all treatments.

The operating company uses sub-table TMTCNTL.TREAT to define the tones, announcements and states that the system returns to the originator of a call.

OM group TRMTCM (continued)

The system returns the tones, announcements and states when the system encounters a specified treatment code during call translation. If a treatment code does not apply to an office type, the treatment is redundant and must be set to overflow or to a like tone.

Table OFRT lists the sequence of tones, announcements and states the system must return to the originator of a call. The system returns the tones, announcements, and states when the system encounters a specified treatment code during call translation.

Table CLLI defines the common language location identifier (CLLI) of each tone and announcement. The system also defines each treatment CLLI in one of the following tables:

- Table TONES defines the CLLI for software-generated tones.
- Table STN defines the CLLI for hardware-generated tones.
- Table ANNS defines the CLLI for recorded announcements.
- Table DRAMS defines the CLLI for digital recorded announcements.

The system does not define the following treatment CLLI:

- fixed treatment CLLIs
- IDLE (idle)
- LKOUT (lockout)
- and COPP (cutoff on permanent signal and partial dial)

A call can terminate in a specified treatment code, because the operating-company-supplied translations lead the call to a treatment. A call can terminate in a specified treatment code because the DMS switch detects fixed conditions. The DMS switch and prescribes a treatment code without reference to the operating company translations. These conditions are not a normal set of conditions and prevent the completion of the call.

The treatment code is occasionally part of a normal call completion process. The normal call process includes, for example, an announcement to the originator before the call is complete.

While the DMS translates a call, the DMS can determine if the call must terminate in a specified treatment call. When the DMS determines that the call must terminate in a specified treatment code, the DMS accesses sub-table TRTCNTL.TREAT. The DMS determines the tone, announcement, or state that the system returns to the originator. The DMS also determines the route

in table OFRT that lists the sequence of tones, announcements, and/or states to return to the originator.

Key field:
There is no key field.

Info field:
There is no info field.

Associated OM groups

The OM group TRMTCU counts calls that the system routes to a treatment. The treatment notifies the subscriber that the action is not correct for reasons of authorization.

The OM group TRMTCU2 is an extension of OM group TRMTCU. The OM group TRMTCU2 counts calls that the system routes to a treatment. The treatment notifies the subscriber that the action is not correct for reasons of authorization.

The OM group TRMTER counts calls that the system routes to a treatment of a failure caused by a switching equipment problem.

The OM group TRMTFR counts calls that the system routes to a treatment that is a normal sequence of a call.

The OM group TRMTFR2 is an extension of OM group TRMTFR and counts the same type of calls.

The OM group TRMTRS counts calls that the system routes to a treatment because of a failure. Not enough software or hardware resources causes the failure.

Associated functional groups

The following functional groups associate with OM group TRMTCM:

- DMS-100 local
- DMS-200 toll
- DMS-100/200 combined local and toll
- DMS-300 international gateway for North America
- DMS-250 tandem switching office for common carriers
- DMS-MTX mobile telephone exchange

OM group TRMTCM (continued)

Associated functionality codes

The associated functionality codes for OM group TRMTCM appear in the following table.

Functionality	Code
Common Basic	NTX001AA

Register TCMANCT

Machine intercept (ANCT) treatment (TCMANCT)

The DMS-100 local, DMS-100G, international, and DMS-100/200 local/toll offices use register TCMANCT. Register TCMANCT counts calls that the system routes to ANCT treatment. The system routes the calls to treatment because the directory number that the caller dials is not connected. The directory number that the caller dials is out of service.

Register TCMANCT release history

Register TCMANCT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMANTO

Answer timeout (ANTO) treatment (TCMANTO)

For DMS-MTX offices, TCMANTO counts calls that the system routes to ANTO treatment. The system routes the call to treatment because the called party did not answer before ANTO.

Register TCMANTO release history

Register TCMANTO was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMATBS

Attendant busy (ATBS) treatment (TCMATBS)

Register TCMATBS is not in use. The system handles Meridian Digital Centrex (MDC) treatments in table AUDIO.

Register TCMATBS release history

Register TCMATBS was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMATDT

Audio tone detector timeout (ATDT) treatment (TCMATDT)

For DMS-250 tandem offices, TCMATDT counts calls that the system routes to ATDT treatment because a calling subscriber remained off-hook. The calling subscriber remained off-hook long enough for the audio tone detector default timer to time out. The system disconnects calling subscriber on the completion of the treatment, and the system does not bill the call.

Register TCMATDT release history

Register TCMATDT was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMBLDN

Blank directory number (BLDN) treatment (TCMBLDN)

OM group TRMTCM (continued)

The DMS-100 local, DMS-100G, international, DMS-100/200 local/toll, and DMS-MTX offices use register TCMBLDN. Register TCMBLDN counts calls that the system routes to BLDN treatment. The system routes the calls to treatment when the caller dials a directory number the system did not assign.

Register TCMBLDN release history

Register TCMBLDN was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMCBTN

Clearback tone (CBTN) treatment (TCMCBTN)

Register TCMCBTN counts calls that the system routes to CBTN treatment for reasons the licensee assigns.

This register supports the integration of software loads that are licensee-specific.

Register TCMCBTN release history

Register TCMCBTN was introduced in BCS22.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMCFWV

Variable call forwarding verification (CFWV) treatment (TCMCFWV)

The DMS-100 local, and DMS-100/200 local/toll offices use register TCMCFWV. Register TCMCFWV counts calls that the system routes to variable CFWV treatment. The system routes the call to treatment because a subscriber with the Variable Call Forwarding feature dials the activation code.

The subscriber dials the call forwarding activation code while call forwarding is already active on a line.

Register TCMCFWV release history

Register TCMCFWV was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMCHAF-Canada only

Changed 800 number forward (CHAF) treatment (TCMCHAF)

For originating screening office with enhanced 800 service, TCMCHAF counts calls that the system routes to CHAF treatment. The system routes calls to treatment because the response from the operating company (Bell Canada) database is Changed 800 Number - Treatment 2.

The system routes the calling subscriber to national directory assistance.

Register TCMCHAF release history

Register TCMCHAF was introduced in BCS22.

Associated registers

Register TCMCHAN counts calls that the system routes to CHAF treatment. The system routes calls to treatment because the response from the operating company (Bell Canada) database is Changed 800 Number-Treatment 1. The system routes the calling subscriber to an announcement that states the dialed 800 number has changed. The announcement advises the subscriber to check the number before the subscriber dials again.

Associated logs

There are no associated logs.

Register TCMCHAN-Canada only

Changed 800 number announcement (CHAN) treatment (TCMCHAN)

OM group TRMTCM (continued)

For originating screening offices with enhanced 800 service, TCMCHAN counts calls that the system routes to CHAN announcement treatment. The system routes calls to treatment because the response from the operating company (Bell Canada) database is Changed 800 Number-Treatment 1.

The system routes the calling subscriber to an announcement that states the dialed 800 number has changed. The announcement advises the subscriber to check the number before the subscriber dials again.

Register TCMCHAN release history

Register TCMCHAN was introduced in BCS22.

Associated registers

Register TCMCHAF counts calls that the system routes to CHAN treatment. The system routes calls to treatment because the response from the operating company (Bell Canada) database is Changed 800 Number-Treatment 2.

The system routes the calling subscriber to national directory assistance.

Associated logs

There are no associated logs.

Register TCMCNAD

Call not allowed (CNAD) treatment (TCMCNAD)

Register TCMCNAD counts calls that the system routes to CNAD treatment.

For example, for private virtual network calls, TCMCNAD counts calls that the system routes to CNAD treatment. The system routes the calls to treatment because the calling party does not have access to a database.

Register TCMCNAD release history

Register TCMCNAD was introduced in BCS27.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMNCREJ

Call rejected (NCREJ) treatment (TCMNCREJ)

Register TCMNCREJ counts calls that the system routes to CREJ treatment.

For example, for integrated services digital network (ISDN), TCMNCREJ counts calls that the system routes to CREJ treatment. The system routes the call to treatment because a functional terminal rejects the call.

Register TCMNCREJ release history

Register TCMNCREJ was introduced in BCS27.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMDISC

Disconnect timing (DISC) treatment (TCMDISC)

For DMS-100 local, DMS-100G, international, and DMS-100/200 local/toll offices, TCMDISC counts calls that the system routes to DISC treatment. The system routes the calls to treatment for one of the following reasons:

- the subscriber fails to go on-hook within 10 s after the other party terminates the call
- the call disconnects by force from a centralized automatic message accounting (CAMA) position that a non-TOPS switching office serves
- the called party does not answer a direct dialing overseas call within 5 min of set up
- an origination (caused by a hardware failure) comes from an outgoing emergency service office (911) trunk

Register TCMDISC release history

Register TCMDISC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

OM group TRMTCM (continued)

Register TCMNC8F

Network control system (NCS) 800 service failure (NC8F) treatment (TCMNC8F)

For DMS-250 tandem offices, TCMNC8F counts calls that the system routes to NC8F treatment. The system routes the calls to treatment because an NCS 800 service failure occurs for one of the following reasons:

- 800 number not found (action code 20)
- 800 number out of band (action code 21)
- 800 number not in service (action code 22)

Register TCMNC8F release history

Register TCMNC8F was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMNTRS

No terminal responding (NTRS) treatment (TCMNTRS)

Register TCMNTRS increases when the system routes a call to NTRS treatment.

For example, for integrated services digital network (ISDN), TCMNTRS counts calls that the system routes to CREJ treatment. The system routes the call to treatment because an operating terminal does not respond to a call.

Register TCMNTRS release history

Register TCMNTRS was introduced in BCS27.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMN9DF

Network Control System (NCS) 900 database failure (N9DF) treatment (TCMN9DF)

For DMS-250 tandem offices, TCMN9DF counts calls that the system routes to N9DF treatment. The system routes the calls to treatment because the 900 number dialed is not in the NCS database. The subscriber receives an announcement or reorder tone to indicate that the system cannot complete the 900 call as dialed.

Register TCMN9DF release history

Register TCMN9DF was introduced in BCS29.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMN9NS

Network Control System (NCS) 900 not in service (N9NS) treatment (TCMN9NS)

For DMS-250 tandem offices, TCMN9NS counts calls that the system routes to N9NS treatment. The system routes the calls to treatment because the 900 number that the caller dials is not in service. The subscriber receives an announcement or reorder tone to indicate that the system cannot complete the 900 call as dialed.

Register TCMN9NS release history

Register TCMN9NS was introduced in BCS29.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMN9OB

Network Control System (NCS) 900 out-of-band (N9OB) treatment (TCMN9OB)

For DMS-250 tandem offices, TCMN9OB counts calls that the system routes to N9OB treatment. The system routes calls to treatment because the 900 number that the caller dials is not accessible from the calling area. The subscriber receives an announcement or reorder tone. The announcement or tone indicates that the 900 call is out of band from where the call originated.

OM group TRMTCM (continued)

Register TCMN9OB release history

Register TCMN9OB was introduced in BCS29.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMOPRT

Regular operator intercept (OPRT) treatment (TCMOPRT)

For DMS-100 local and DMS-100/200 local/toll offices, TCMOPRT counts calls that the system routes to the operator. The system routes the calls to the operator because the system disconnects directory number dialed. The system also routes the calls to the operator because the number is out of service.

Register TCMOPRT release history

Register TCMOPRT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMOSVR

Operator services voice response (OSVR) treatment (TCMOSVR)

The following, with the Auxiliary Operator Services System (AOSS) Voice Response Extended Call Handling feature, use register TCMOSVR:

- DMS-100 local
- DMS-200 toll
- DMS-100/200 local/toll

Register TCMOSVR counts calls that the system routes to OSVR treatment for one of the following reasons:

- on a directory assistance Operator Number Identification call, the operator entered the calling number at the AOSS console. The operator searched for the requested directory number. The operator connected the subscriber to the audio response unit (ARU) for voice response.
- on a directory assistance automatic number identification (ANI) call, the ANI equipment provides the calling number to the DMS switch. The operator searched for the requested directory number, and connected the subscriber to the ARU for voice response.
- on an operator-handled intercept call, the operator collected the called number. The operator initiated a search for a possible new number, and connected the subscriber to the ARU for voice response.

The system routes the AOSS call to an internal or external ARU.

The system can connect the subscriber to the operator again. The system can connect the subscriber if the subscriber stays on the line after the subscriber listens to the announcement.

Register TCMOSVR release history

Register TCMOSVR was introduced in BCS23.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMPDIL

Partial dial timeout (PDIL) treatment (TCMPDIL)

The DMS-100 local, DMS-100G, international, DMS-200 toll, DMS-100/200 local/toll, DMS-250 tandem, and DMS-MTX offices use register TCMPDIL. Register TCMPDIL counts calls the system routes to PDIL treatment. The system routes calls to treatment because the system received at least one digit, but not enough digits to complete the call.

The system can receive a multifrequency (MF) key pulse signal on a call on an MF trunk. If the system receives the key pulse signal, the system routes the call to PDIL treatment.

OM group TRMTCM (continued)

If the system does not receive an MF start (ST) signal on a call on an MF trunk, the system routes the the call to PDIL treatment. The system can receive the ST signal that is not correct in the environment of the call. When this condition occurs, the system routes the call to reorder (RODR) treatment.

For DMS-300 gateway offices, register TCMPDIL counts calls that the system routes to PDIL treatment.

The system routes a call incoming on a private line or on an international 101 test line to PDIL treatment. The system routes the call for one of the following reasons:

- the call fails during digit collection
- a lack of digits prevents the completion of the translation
- the terminating exchange received an ST signal and timed out while waiting for enough digits to complete the call

The system routes a call incoming on an R1 signaling trunk to PDIL treatment for one of the following reasons:

- a lack of digits prevents the completion of the translation
- the terminating exchange received an ST signal and timed out while waiting for enough digits to complete the call

The system routes a call outgoing on a 6 signaling trunk to PDIL treatment. The system routes the call to treatment if the terminating exchange received an ST signal and timed out. The terminating exchange times out while waiting for enough digits to complete the call.

Register TCMPDIL release history

Register TCMPDIL was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMPSIG

Permanent signal timeout (PSIG) treatment (TCMPSIG)

The DMS-100 local, DMS-100G, international, DMS-200 toll, and DMS-100/200 local/toll offices use register TCMPSIG. Register TCMPSIG counts calls that the system routes to PSIG treatment. The system routes calls to treatment because the system does not receive digits before timeout.

When the system receives distorted signals, the system routes the calls to reorder (RODR) treatment.

For DMS-300 gateway offices, TCMPSIG counts calls that the system routes to PSIG treatment.

The system routes a call incoming on an R1 signaling trunk to PSIG treatment for one of the following reasons:

- the system receives a key pulse (KP) signal that is not correct during digit collection
- the receiver times out while the receiver waits for digits during digit collection
- KP1, or KP2 signals are not present during translation verification

The system routes a call incoming on a private line or an international 101 test line to PSIG treatment. The system routes the call to treatment if the receiver times out while the receiver waits for digits during digit collection.

For DMS-250 tandem and DMS-MTX offices, TCMPSIG counts calls that the system routes to PSIG treatment. The system routes a call originating on an incoming or two-way trunk to PSIG treatment. The system routes a call to treatment because the caller does not dial digits in the period specified. Trunk subgroup parameter PSPDSEIZ specifies the period.

Register TCMPSIG release history

Register TCMPSIG was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

OM group TRMTCM (continued)

Register TCMRING

No terminal responding-release call (RING) treatment (TCMRING)

For DMS-100 local and DMS-100/200 local/toll offices, TCMRING counts calls that the system routes to RING treatment. The system routes an ISDN user part to basic rate access (ISUP-to-BRA) call to RING treatment when:

- timer T310 expires
- the originator of the call is an ISDN party
- audible ringing is not already in progress for the call

Register TCMRING release history

Register TCMRING was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMTDBR

Test desk bridged (TDBR) treatment (TCMTDBR)

For DMS-100 local and DMS-100/200 local/toll offices, TCMTDBR counts calls that the system routes to TDBR treatment. The system routes the calls to treatment for one of the following reasons:

- An AT&T mechanized loop tester connects to a line that has one of these options activated:
  - — suspended service (SUS)
  - — remote suspended service (RSUS)
  - — plug up (PLP)
  - — remote make busy (RMB)

  The test desk closes the tip and ring loop, or the line goes off-hook.
- A No. 14 local test desk signaling type trunk (trunk group type TD) connects in idle bridge mode to a line. This line has one of the options SUS, RSUS, PLP, or RMB activated.

Register TCMTDBR release history

Register TCMTDBR was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMTRBL

Trouble intercept (TRBL) treatment (TCMTRBL)

For DMS-100 local and DMS-100/200 local/toll offices, TCMTRBL counts calls that the system routes to TRBL treatment. The system routes the calls to treatment for one of the following reasons:

- An incoming operator (trunk group type IO) originates a check call to a busy line that has the plug-up (PLP) option. The PLP option is assigned in table LENLINES or IBNLINES.
- A test desk (trunk group type TD) position tries to use a directory number dialing to post a line. The line has the PLP option assigned in table LENLINES or IBNLINES.
- A call originates from a line or trunk to a line that has the PLP option assigned in table LENLINES or IBNLINES.

Register TCMTRBL release history

Register TCMTRBL was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMUNDN

Unassigned directory number (UNDN) treatment (TCMUNDN)

The DMS-100 local, international, DMS-200 toll, and DMS-100/200 local/toll offices use the register TCMUNDN. Register TCMUNDN counts calls that the system routes to the UNDN treatment. The system routes the calls to treatment because, for the digits dialed, the operating company specifies

OM group TRMTCM (continued)

treatment UNDN. Treatment UNDN is in field TRMT in table THOUGRP, AVTHGRP, or WRDN.

For DMS-300 gateway offices, TCMUNDN counts calls that the system routes to treatment UNDN.

The system routes the following calls to treatment:

- calls incoming on a private line
- calls incoming on an R1 signaling trunk
- calls incoming on an international 101 test line
- calls outgoing on a No. 6 signaling trunk

The system routes the calls to treatment UNDN if the terminating exchange determines the national number received is not in use. While the call connects, the system determines the number is not in use. The system must reach the subscriber by another number.

Register TCMUNDN release history

Register TCMUNDN was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMUNDT

Unidentified (UNDT) treatment (TCMUNDT)

For DMS-100 local, DMS-200 toll, DMS-100/200 local/toll, and DMS-MTX offices, UNDT is the default value for entries in field TREAT. Field TREAT is in tables CLSVSCRC and PFXTREAT when treatment is not required.

Register TCMUNDT release history

Register TCMUNDT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMUPAB

Universal public access blocked (UPAB) treatment (TCMUPAB)

Register TCMUPAB counts calls that the system routes to UPAB treatment. Universal public access includes telephones for use without coins, coin telephones, and hotel/motel telephones.

Register TCMUPAB release history

Register TCMUPAB was introduced in BCS27.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMVACS

Vacant speed number (VACS) treatment (TCMVACS)

For DMS-250 tandem offices, TCMVACS counts calls that the system routes to VACS treatment. The system routes calls to treatment because the number has a speed number format but is not in the database.

Register TCMVACS release history

Register TCMVACS was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMVACT

Vacant code (VACT) treatment (TCMVACT)

OM group TRMTCM (continued)

The DMS-100 local, DMS-100G, international DMS-200 toll, and DMS-100/200 local/toll offices use register TCMVACT. Register TCMVACT counts calls that the system routes to VACT treatment for one of the following reasons:

- A line dials:
  - — a toll terminating center code
  - — an operator code
  - — a terminating inward wide area telephone service (INWATS) number
  - — a tandem INWATS number
  - — a numbering plan area (NPA) + NPA code
  - — a number that is specified in sub-table FNPACODE as unauthorized centralized automatic message accounting (CAMA)
- A line or trunk dials a country code that is not assigned.
- The system does not specify data in table INWORICN for an originating INWATS call.
- For an originating INWATS call, the system does not specify a terminating service office code in table INWORICN. The code is for the NXX code and the area code N 0/1 X dialed. The system does not specify a code when the originating screening office is also the terminating screening office.
- On a terminating INWATS call, the system does not specify data in table INWTERCN for the incoming digits.
- On a station ringer call, the last four digits do not match those of the calling line. The system defines the call as no-prefix local.
- A blue box fraud call is cut off.
- A call is a line or operator-to-test-line call.
- The originator fails to dial the single-party direct-dial digit.
- The originator fails to dial enough digits on speed calling or call forwarding updates.
- The originator attempts to place a three-way call to an automatic number announcement, an outgoing service desk, or a revertive call.

For DMS-300 gateway offices, TCMVACT counts calls that the system routes to VACT treatment.

The system routes a call incoming on a private line or an international 101 test line to VACT treatment. The system routes the call to treatment for one of the following reasons:

- The national number transmitted to the terminating exchange is empty or spare.
- The call fails screening because the call uses table DESTCTL and the table does not have entries or field DISDRLST is D.
- The call fails in translation for one of the following reasons:
  - — on an overseas call, field SYMBOL in table CCTRNSL is NCTR for the trunk group is used
  - — on a terminating call to North America, table OVNTRNSL does not have entries
  - — on a subscriber dialed terminating call to North America, the D or E digit equals 0 or 1
  - — on a subscriber dialed terminating call to North America, the dialed digits are NPA-555-XXXX
  - — the number of digits received is more than the maximum number specified in table MMAX, INPRTRNS, or OVNTRNSL

The system routes a call incoming on an R1 signaling trunk to VACT treatment for one of the following reasons:

- The call fails during digit collection because the system does not receive a damaged digit, or an integrity failure occurs.
- The system does not receive a start digit. The start digit received is a second key pulse (KP) digit, or is not correct.
- The national number transmitted to the terminating exchange is empty or spare.
- The call fails in translation for one of the following reasons:
  - — on an overseas call, field SYMBOL in table CCTRNSL is NCTR for the trunk group used
  - — on a terminating call to North America, table OVNTRNSL does not have entries
  - — on a subscriber-dialed terminating call to North America, the D or E digit equals 0 or 1

OM group TRMTCM (continued)

— on a subscriber-dialed terminating call to North America, the dialed digits are NPA-555-XXXX

— the number of digits received are greater than maximum number specified in table MMAX, INPRTRNS, or OVNTRNSL

- The call fails screening because the call uses destination control table (DESTCTL) that is not datafilled, or field DISDRLST is D.

For DMS-250 tandem offices, register TCMVACT counts calls that the system routes to VACT treatment for one of the following reasons:

- The subscriber dials an NPA code, office code, or country code that is not assigned.
- Incoming exclusion specifies that the system must block the call. This system must block the call because a subscriber dialed a number in the calling area of the subscriber.

For DMS-MTX offices, register TCMVACT counts calls that the system routes to VACT treatment. The system routes the call to treatment because the subscriber dialed an NPA code, office code, or country code that is not assigned.

Register TCMVACT release history

Register TCMVACT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMVCCT

Vacant country code (VCCT) treatment (TCMVCCT)

For DMS-250 tandem offices, TCMVCCT counts calls that the system routes to VCCT treatment.

If the network system is not datafilled for country code dialing, the system routes an international direct distance dialing call to VCCT treatment.

Register TCMVCCT release history

Register TCMVCCT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMVPFX

Vacant prefix code (VPFX) treatment (TCMVPFX)

Register TCMVPFX counts calls that receive VPFX treatment because the prefix digits a subscriber dials are not datafilled.

Register TCMVPFX release history

Register TCMVPFX was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TRMTCM2

OM description

Treatments, customer miscellaneous (2)

The system increments TRMTCM2 when a customer miscellaneous treatment group 2 treatment occurs.

Release history

The system includes OM group TRMTCM2 since BCS33.

Registers

OM group TRMTCM2 registers display on the MAP terminal as follows:

```
TCMMTBL     TCMCCRG     TCMCCRP     TCMCCRM
TCMCCRH     TCMCCRT     TCMPODN     TCMRESL
```

This OM group contains spare registers that are visible, but are unavailable to the user. Later software releases make use of these registers. The following spare registers display on the MAP display terminal.

```
                                    CMSPR07
CMSPR8      CMSPR9      CMSPR10     CMSPR11
CMSPR12     CMSPR13     CMSPR14     CMSPR15
CMSPR16     CMSPR17     CMSPR18     CMSPR19
CMSPR20     CMSPR21     CMSPR22     CMSPR23
CMSPR24     CMSPR25     CMSPR26     CMSPR27
CMSPR28     CMSPR29     CMSPR30     CMSPR31
```

The spare register name in the previous MAP example is valid until a software release uses it. When a spare register is put to use, the new register name does not appear in the MAP display until the subsequent release of the software.

Group structure

OM group TRMTCM2 provides one tuple per office.

Key field:

None

Info field:
None

Associated OM groups

None

Associated functional groups

None

Associated functionality codes

The following table lists the functionality codes of OM group TRMTCM2.

Functionality	Code
Common Basic	BASE0001

Register TCMMTBL

Treatment, customer miscellaneous, mobile trouble

TCMMTBL counts the times the mobile trouble treatment occurs.

Register TCMMTBL release history

The system includes TCMMTBL since BCS33.

Associated registers

None

Associated logs

None

Register TCMCCRG

Cumulative charge restriction treatment for general subscribers

Register TCMCCRG counts the times calls route to treatment CCRG (cumulative charge restriction for general subscribers).

Register TCMCCRG release history

The system includes TCMCCRG since CSP008.

Associated registers

None

OM group TRMTCM2 (continued)

Associated logs

None

Extension registers

None

Register TCMCCRP

Cumulative charge restriction treatment for payphone subscribers

Register TCMCCRP counts the times calls route to treatment CCRP (cumulative charge restriction for payphone subscribers).

Register TCMCCRP release history

The system includes TCMCCRP since CSP008.

Associated registers

None

Associated logs

None

Extension registers

None

Register TCMCCRM

Cumulative charge restriction treatment for mobile subscribers

Register TCMCCRM measure the number of times calls route to treatment CCRM (cumulative charge restriction for mobile subscribers).

Register TCMCCRM release history

CSP008 introduced register TCMCCRM.

Associated registers

None

Associated logs

None

Extension registers

None

Register TCMCCRH

Cumulative charge restriction treatment for PHS subscribers

Register TCMCCRH counts the times calls route to treatment CCRH (cumulative charge restriction for PHS subscribers).

Register TCMCCRH release history

The system includes TCMCCRH since CSP008.

Associated registers

None

Associated logs

None

Extension registers

None

Register TCMCCRT

Cumulative charge restriction treatment for third-party-billed calls

Register TCMCCRT counts the times calls route to treatment CCRT (cumulative charge restriction for third-party-billed calls).

Register TCMCCRT release history

The system includes TCMCCRT since CSP008.

Associated registers

None

Associated logs

None

Extension registers

None

Register TCMPODN

Treatment, customer miscellaneous, ported out directory number

OM group TRMTCM2 (end)

The operating company specifies ported out directory number (PODN) treatment for calls that satisfy both of the following requirements:

- The call terminates on a DN that has a native number plan area and office code (NPA-NXX).
- The call is to a DN that has moved to another switch.

Register TCMPODN counts the number of times that PODN treatment occurs.

Register TCMPODN release history

The system includes TCMPODN since NA009.

Associated registers

None

Associated logs

None

Register TCMRESL

Restriction treatment for the 20 restriction reasons for categories used in the Turkish market.

Register TCMRESL counts the number of times that calls route to treatments RL00 to RL17.

Register TCMRESL release history

The system includes TCMRESL since MMP14.

Associated registers

None

Associated logs

None

OM group TRMTCU

OM description

Customer unauthorized treatment (TRMTCU)

The OM group TRMTCU counts calls that the system routes to a treatment. The treatment notifies the subscriber that the action of the subscriber is not correct for reasons of authorization. These treatments normally indicate that the subscriber dials a sequence of digits that is one of the following:

- not correct
- follows a procedure that is not correct

Register TRMTCU contains one register for each call treatment. The registers are named TCUnnnn, where nnnn is the external treatment abbreviation.

Release history

The OM group TRMTCU was introduced before BCS20.

GL04

Registers TCUCNDT, TCUDNTR, TCUORSS and TCUTESS do not increase.

DMS-100G added to the register descriptions for TCUFNAL, TCUMSLC, and TCUNACK.

BCS36

Performance for DMS-100 international switches was introduced.

Registers

The OM group TRMTCU registers appear on the MAP terminal as follows:

```
TCUINAC     TCUCNDT     TCUMSCA     TCUMSLC
TCUUNCA     TCUHNPI     TCUUNOW     TCUTDND
TCUUNIN     TCUORSS     TCUTESS     TCUDNTR
            TCUNOCN     TCUINAU     TCUTINV
TCUCNOT     TCUDCFC     TCUDODT     TCURSDT
TCUFNAL     TCUUMOB     TCUANIA     TCUNACK
TCUCACE     TCUD950     TCUN950     TCUILRS
TCUNACD     TCUDACD     TCUADBF     TCUFDNZ
```

The following treatments apply to DMS-100 local switching offices: CNDT, UNOW, TDND, UNIN, ORSS, TESS, DNTR, NOCN, CNOT, DCFC,

OM group TRMTCU (continued)

MSCA, MSLC, HNPI, DODT, FNAL, NACK, CACE, D950, N950, ILRS, and DACD.

The following treatments apply to DMS-200 toll switching offices: MSCA, HNPI, TDND, UNIN, DODT, FNAL, CACE, D950, N950, and DACD.

The following treatments apply to DMS-100/200 local toll switching offices: CNDT, MSCA, MSLC, HNPI, UNOW, TDND, UNIN, ORSS, TESS, DNTR, NOCN, CNOT, DCFC, DODT, FNAL, NACK, CACE, D950, N950, ILRS, NACD, and DACD.

The following treatments apply to DMS-100 international switching offices: ORSS, DNTR, FNAL, and NACK.

The following treatments apply to DMS-300 gateway switching offices: DODT and ANIA.

The following treatments apply to DMS-250 tandem switching offices: CNDT, INAC, MSLC, INAU, TINV, RSDT, ANIA, ADBF, and FDNZ.

The following treatments apply to DMS-MTX mobile telephone exchanges: CNDT, MSCA, MSLC, HNPI, TDND, ORSS, TESS, FNAL, and UMOB.

The following treatments apply to DMS-100G switching offices: FNAL, DNTR, MSLC, and NACK.

Group structure

The OM group TRMTCU provides one tuple for each office.

Key field:
There is no key field.

Info field:
There is no info field.

Table TMTCNTL defines all treatments.

The operating company uses sub-tables TMTCNTL.TREAT to define the tone(s), announcement(s), or states, that the system returns to the originator of a call. The system returns the tone(s), announcement(s), or states when the

system encounters a specified treatment code during translation of a call. If a treatment code does not apply to an office type, the treatment is redundant and:

- can be set to overflow tone
- can be set to like tone

Table OFRT lists the sequence of tones, announcements, or states that the system returns to the originator of a call. The system returns the tones, announcements, or states when the system encounters a specified treatment code during translation of a call.

Table CLLI defines the CLLI of each tone and announcement. The following tables define treatment CLLI. The tables do not define fixed treatment CLLIs, IDLE (idle), LKOUT (lockout), and COPP (cutoff on permanent signal and partial dial).

- Table TONES defines the CLLI for software-generated tones.
- Table STN defines the CLLI for hardware-generated tones.
- Table ANNS defines the CLLI for recorded announcements.
- Table DRAMS defines the CLLI for digital recorded announcements.

A call terminates in a specified treatment code for one of the following reasons:

- the operating company-supplied translations lead the call to a treatment
- the DMS detects specified conditions and prescribes a treatment code without reference to the operating company translations

These conditions are not a normal set of conditions and prevent the completion of the call.

The treatment code is occasionally part of a normal call completion process. The call completion process includes, for example, an announcement to the originator before the system completes the call.

The DMS can determine, while the DMS translates a call, that the call must terminate in a specified treatment code. The DMS accesses the sub-tables TRTCNTL.TREAT to determine what announcement, tone, or state is to return to the originator. The DMS determines what route in table OFRT lists the sequence of announcements, tones, or states to return to the originator.

Associated OM groups

Register TRMTCM counts calls that the system routes to a treatment that is the result of a customer action. The treatment does not relate to authorization.

OM group TRMTCU (continued)

Register TRMTCU2 is an extension of group TRMTCU and counts the same type of calls.

Register TRMTER counts calls that the system routes to a treatment because of a failure that a switching equipment failure causes.

Register TRMTFR counts calls that the system routes to a treatment that is a normal sequence of a call.

Register TRMTFR2 is an extension of TRMTFR. Register TRMTFR2 counts calls that the system routes to a treatment that is a normal sequence of a call.

Register TRMTRS counts calls that the system routes to a treatment. The system routes the calls to a treatment because of a failure caused by a lack of software or hardware resources.

Associated functional groups

The following functional groups associate with OM group TRMTCU:

- DMS-100 local
- DMS-200 toll
- DMS-100/200 combined local and toll
- DMS Auxiliary Operator Service System (AOSS)
- DMS-300 international gateway for North America
- DMS-250 tandem switching office for common carriers
- DMS-MTX mobile telephone exchange

Associated functionality codes

The associated functionality code for OM group TRMTCU is Common Basic, NTX001AA.

Register TCUADBF

Automatic number identification database failure (ADBF) treatment (TCUADBF)

For DMS-250 tandem offices, register TCUADBF counts calls that the system routes to treatment ADBF. The system routes the calls to treatment because call processing cannot find the ANI of the subscriber in the database.

Register TCUADBF release history

Register TCUADBF was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUANIA

Automatic number identification account status not allowed (ANIA) treatment (TCUANIA)

For DMS-250 tandem and DMS-300 gateway offices, register TCUANIA counts calls that the system routes to treatment ANIA. The system routes calls that originate on a trunk to treatment ANIA if the system cannot find ANI in the database. The system also routes these calls to treatment if the database is set to block calls that come from that ANI.

Register TCUANIA release history

Register TCUANIA was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCACE

Carrier access coded in error (CACE) treatment (TCUCACE)

The DMS-100 local, DMS-200 toll, and DMS-100/200 local toll end offices with equal access use register TCICACE. Register TCUCACE counts calls that the system routes to treatment CACE. The system routes the calls to treatment because the dialed carrier access code 10XXX is empty or has changed.

The system routes the call to an announcement.

Register TCUCACE release history

Register TCUCACE was introduced before BCS20.

Associated registers

There are no associated registers.

OM group TRMTCU (continued)

Associated logs

There are no associated logs.

Register TCUCNDT

Coin denied termination (CNDT) treatment (TCUCNDT)

The DMS-100 local, DMS-100/200 local toll, DMS-250 tandem, and DMS-MTX offices use register TCUCNDT. Register TCUCNDT counts calls that the system routes to treatment CNDT. The system routes a call that originates on a line or trunk to treatment CNDT. The system routes the call to treatment if the coin line directory number has the denied terminating (DTM) option assigned. The system dials the coin line directory number.

This register does not increase in GL04.

Register TCUCNDT release history

Register TCUCNDT was introduced in BCS20.

GL04

Register does not increase.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCNOT

Coin overtime (CNOT) treatment (TCUCNOT)

For DMS-100 local and DMS-100/200 local toll offices, TCUCNOT counts calls that the system routes to treatment CNOT.

A DMS office can have the Local Coin Overtime Charging feature BR0372. The system routes a call that originates on a coin line in a DMS office with this feature to treatment CNOT. The system routes the call to treatment if the caller did not deposit coins for the overtime period.

If the DMS office does not have feature BR0372, the system routes the call to overflow or like tone.

Register TCUCNOT release history

Register TCUCNOT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated registers.

Register TCUD950

Dial 950 (D950) treatment (TCUD950)

The DMS-100 local, DMS-200 toll, and DMS-100/200 local toll end office with equal access use register TCUD950. Register TCUD950 counts calls that the system routes to the treatment D950. The system routes the calls to treatment because the subscriber dials the carrier code 10XXX instead of 950-1XXX.

The system routes the call to the announcement.

Register TCUD950 release history

Register TCUD950 was introduced before BCS20.

Associated registers

Register TCUN950 counts calls that the system routes to the do-not-dial 950 treatment. The system routes calls to treatment because the subscriber dials 950-1XXX instead of the carrier access code 10XXX.

Associated logs

There are no associated logs.

Register TCUDACD

Dial carrier access code (DACD) treatment (TCUDACD)

The DMS-100 local, DMS-200 toll, and DMS-100/200 local toll end office with equal access feature use register TCUDACD. Register TCUDACD counts calls that the system routes to treatment DACD. The system routes the calls to treatment because the subscriber did not dial the required carrier access code 10XXX.

The system routes the call to the announcement.

Register TCUDACD release history

Register TCUDACD was introduced before BCS20.

OM group TRMTCU (continued)

Associated registers

Register TCUNACD counts calls that the system routes to the do-not-dial-carrier-access-code treatment. The system routes the calls to treatment because the carrier access code that the subscriber dialed is the carrier access code of the primary inter-LATA carrier (PIC) of the subscriber. The carrier access code is 10XXX. The PIC of the subscriber is assigned in table LENFEAT.

Associated logs

There are no associated logs.

Register TCUDCFC

Disallowed coin free call (DCFC) treatment (TCUDCFC)

For DMS-100 local and DMS-100/200 local toll offices, TCUDCFC counts calls that the system routes to treatment DCFC.

The system routes a call that originates on a coin free line to treatment DCFC. The system routes the call to treatment if the call originator dials a call other than an operator assisted (0+) call. The system also routes a call to treatment if the call originator dials a call other than a three-digit service code.

Register TCUDCFC release history

Register TCUDCFC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUDNTR

Denied terminating (DNTR) treatment (TCUDNTR)

The DMS-100 local, DMS-100G, international, and DMS-100/200 local toll offices use register TCUDNTR. Register TCUDNTR counts calls that the system routes to treatment DNTR.

The system routes a call that originates on a line or trunk to treatment DNTR. The system routes the call to treatment if the non-coin line directory number has the denied terminating (DTM) option. The subscriber dials the non-coin line directory number.

This register does not increase in GL04.

Register TCUDNTR release history

Register TCUDNTR was introduced before BCS20.

GL04

Register does not increase.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUDODT

Denied originating data terminal (DODT) treatment (TCUDODT)

The DMS-100 local, DMS-200 toll, DMS-100/200 local toll, and DMS-300 gateway offices use register TCODODT. Register TCUDODT counts calls that the system routes to treatment DODT. The system routes the calls to treatment because a data unit attempts to originate a call. The data unit attempts to originate a call when the RS-232 data terminal ready (DTR) lead was not on.

Register TCUDODT release history

Register TCUDODT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUFDNZ

First digit not zero (FDNZ) treatment (TCUFDNZ)

For DMS-250 tandem offices, TCUFDNZ counts calls that the system routes to treatment FDNZ. The system routes a travel card number (TCN) call reorigination to the FDNZ treatment. The system routes the TCN call to treatment if the first digit of the address digits is not zero. The subscriber has one more opportunity to dial the called number correctly.

The system routes the call to the announcement.

OM group TRMTCU (continued)

Register TCUFDNZ release history

Register TCUFDNZ was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUFNAL

Feature not allowed (FNAL) treatment (TCUFNAL)

The DMS-100 local, DMS-100G, international, DMS-200 toll, DMS-100/200 local toll, and DMS-MTX offices use register TCUFNAL. Register TCUFNAL counts calls that the system routes to treatment FNAL. The system routes the calls to treatment because a subscriber dials the feature activation digits of a requirement calling feature. The requirement calling feature is not assigned to the line of the subscriber.

Register TCUFNAL release history

Register TCUFNAL was introduced before BCS20.

Associated registers

Register TCUNACK counts calls that the system routes to the negative acknowledgement treatment. The system routes the calls to treatment because a subscriber attempts to use a custom calling feature. The system cannot complete the call because of feature interaction or feature restriction.

Associated logs

There are no associated logs.

Register TCUHNPI

Home number plan area (NPA) intercept (HNPI) treatment (TCUHNPI)

For DMS-100 local, DMS-200 toll, DMS-100/200 local toll, and DMS-MTX offices, TCUHNPI counts calls that the system routes to treatment HNPI.

The system routes a call that originates on a line or trunk to treatment HNPI. The system routes the calls to treatment if the call originator dials the home NPA. The call originator dials the home NPA when the system does not permit home NPA dialing.

Register TCUHNPI release history

Register TCUHNPI was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUILRS

Inter-LATA restriction (ILRS) treatment (TCUILRS)

The DMS-100 local, DMS-200 toll, and DMS-100/200 local toll end office with equal access use register TCUILRS. Register TCUILRS counts calls that the system routes to the treatment ILRS for one of the following reasons:

- A line with the inter-LATA toll denied (ITD) option attempts to originate an inter-LATA call.
- A line with the carrier toll denied (CTD) option attempts to use a carrier to originate a toll call.

The system completes or blocks the call to a carrier and sends the call to the inter-LATA restricted treatment. The decision to block a call to a carrier with the carrier toll denied option assigned depends on the call characteristics. The call characteristics are as follows:

- The system completes a (10XXX) 0 + 7/10 digit operator assisted call. If the call is direct dial, the system routes the call to treatment ILRS.
- The system completes a (10XXX) 011+ CC + NN operator assisted call. If the call is direct dial, the system routes the call to treatment ILRS.
- The system completes a 10XXX + 0 direct dial call.
- The system routes a 10XXX + # direct dial call to treatment ILRS.
- The system completes a 1 + 800 + 4 digit direct dial call.
- The system routes a 950 + 1XXX direct dial call to treatment ILRS.
- The system routes a (10XXX) 1 + NPA + 555 + 4 digit direct dial call to treatment ILRS.

Note: Brackets indicate that the carrier digits are optional in the dialing sequence.

OM group TRMTCU (continued)

If the system routes the call to the inter-LATA restriction treatment, the system routes the call to an announcement.

Register TCUILRS release history

Registers TCUILRS was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUINAC

Invalid account code (INAC) treatment (TCUINAC)

For DMS-250 tandem offices, TCUINAC counts calls that the system routes to treatment INAC.

The system routes a call that requires account code validation to treatment INAC. The system routes the call to treatment if the account code dialed is invalid for that trunk group.

Register TCUINAC release history

Register TCUINAC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUINAU

Invalid authorization code (INAU) treatment (TCUINAU)

For DMS-250 tandem offices, TCUINAU counts calls that the system routes to treatment INAU for one of the following reasons:

- authorization code that the system dials was invalid
- subscriber did not dial the authorization code in a correct city of origin
- security code digits that the subscriber dials with the authorization code did not match the security code digits. The system stores the security digits against the authorization code

Register TCUINAU release history

Register TCUINAU was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUMSCA

Misdirected CAMA call (MSCA) treatment (TCUMSCA)

The DMS-100 local, DMS-200 toll, DMS-100/200 local toll, and DMS-MTX offices use the register TCUMSCA. Register TCUMSCA counts calls that the system routes to treatment MSCA for one of the following reasons:

- A local call attempted to use the toll network but the system did not permit the attempt.
- A subscriber dialed a prefix digit 0 or 1 on a local call.

Register TCUMSCA release history

Register TCUMSCA was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUMSLC

Misdirected local calls (MSLC) treatment (TCUMSLC)

The DMS-100 local, DMS-100G, DMS-100/200 local toll, DMS-250 tandem, and DMS-MTX offices use register TCUMSLC. Register TCUMSLC counts

OM group TRMTCU (continued)

calls that the system routes to treatment MSLC for one of the following reasons:

- A line attempted to originate an operator-assisted call (0+) to codes NPA555, 555, or 800.
- The last four digits on a station ringer call do not match those of the calling line. The call is not defined as no-prefix local in the local calling area (LCASCRCN) and prefix treatment (PFXTREAT) tables.
- The subscriber does not dial a prefix digit 0 or 1 on a toll call. The prefix treatment (PFXTREAT) table specifies that the system requires a prefix digit on toll calls.

Register TCUMSLC release history

Register TCUMSLC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUN950

Do not dial 950 (N950) treatment (TCUN950)

The DMS-100 local, DMS-200 toll, and DMS-100/200 local toll end offices with equal access feature use register TCUN950. Register TCUN950 counts calls that the system routes to treatment N950. The system routes the calls to treatment because the system dials 950-1XXX instead of the carrier access code 10XXX.

The system routes the call to an announcement.

Register TCUN950 release history

Register TCUN950 was introduced before BCS20.

Associated registers

Register TCUD950 counts calls that the system routes to the dial-950 treatment. The system routes the calls to treatment because the subscriber dials the carrier code 10XXX instead of 950-1XXX.

Associated logs

There are no associated logs.

Register TCUNACD

Do not dial carrier access code (NACD) treatment (TCUNACD)

The DMS-100 local and DMS-100/200 local toll end offices with equal access use register TCUNACD. Register TCUNACD counts calls that the system routes to treatment NACD. The system routes the calls to treatment because the carrier access code is the carrier access code of the primary inter-LATA carrier (PIC) of the subscriber. The carrier access code is 10XXX. The PIC of the subscriber is assigned in table LENFEAT. The subscriber dials the carrier access code.

The system routes the call to an announcement.

Register TCUNACD release history

Register TCUNACD was introduced before BCS20.

Associated registers

Register TCUDACD counts calls that the system routes to the dial-carrier-access-code treatment. The system routes the calls to treatment because the subscriber did not dial the carrier access code 10XXX.

Associated logs

There are no associated logs.

Register TCUNACK

Negative acknowledgement (NACK) treatment (TCUNACK)

The DMS-100 local, DMS-100G, international, and DMS-100/200 local toll offices use register TCUNACK. Register TCUNACK counts calls that the system routes to treatment NACK when a subscriber attempts to use a custom calling feature. The system cannot complete the call because of feature interaction or restriction.

Register TCUNACK release history

Register TCUNACK was introduced before BCS20.

Associated registers

Register TCUFNAL counts calls that the system routes to the feature not allowed treatment. The system routes the calls to treatment because a subscriber dialed the feature activation digits of a requirement calling feature. The feature is not assigned to the line of a subscriber.

OM group TRMTCU (continued)

Associated logs

There are no associated logs.

Register TCUNOCN

No coin (NOCN) treatment (TCUNOCN)

For DMS-100 local and DMS-100/200 local toll offices, TCUNOCN counts calls that the system routes to treatment NOCN.

The system routes a call that originates on a coin line to treatment NOCN. The system routes the call to treatment if the subscriber deposits no coin on a call the system charges.

Register TCUNOCN release history

Register TCUNOCN was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUORSS

Originating service suspension (ORSS) treatment (TCUORSS)

For DMS-100 local, international, and DMS-100/200 local toll offices, TCUORSS counts calls that the system routes to ORSS treatment.

The system routes a call that originates on a line to ORSS treatment. The system routes the call to treatment if the line has the denied originating option or the suspended service option assigned. The options are assigned in table LENLINES or table IBNLINES.

For DMS-MTX offices, TCUORSS counts calls that the system routes to treatment ORSS. The system routes the call to treatment because a mobile that is temporarily not correct originates a call.

This register does not increase in GL04.

Register TCUORSS release history

Register TCUORSS was introduced before BCS20.

GL04

Register does not increase.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCURSDT

Restricted date and time (RSDT) treatment (TCURSDT)

For DMS-250 tandem offices, TCURSDT counts calls that the system routes to treatment RSDT. The system routes the calls to treatment because the authorization code of the subscriber does not allow access to the network. The subscriber is the originating subscriber.

Register TCURSDT release history

Register TCURSDT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUTDND

Toll denied (TDND) treatment (TCUTDND)

The DMS-100 local, DMS-200 toll, and DMS-100/200 local toll offices use register TCUTDND. Register TCUTDND counts calls that the system routes to treatment TDND for one of the following reasons:

- A line with the toll denied (TDN) option assigned in table LENLINES originated a direct dial (DD) call. Class-of-service screening did not intercept the DD call.
- A coin line with option TDN assigned in table LENLINES originated an operator assisted (OA) call. Class-of-service screening did not intercept the OA call.
- The switching office has AMR5 signaling. A line, other than coin, with option TDN assigned in table LENLINES originated a zero plus (0+) or zero minus (0-) call. The ZEROMPOS field in table LINEATTR is other than AMR5.

OM group TRMTCU (continued)

- A call terminated on an incoming or two-way CAMA/AMR5 trunk with AMR5 signaling format. The category code in table AMRCAT for the trunk specifies treatment TDND.
- An MDC line originates a toll call other than 1+ 555, 1 + NPA555, or 1+ 800. The line has the toll denied restriction specified with the direct outward dial access code in table IBNXLA.

For DMS-MTX offices, TCUTDND counts calls that the system routes to treatment TDND. The system routes the calls to treatment because a cellular subscriber attempted a toll call that table CELLULAR restricts.

Register TCUTDND release history

Register TCUTDND was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUTESS

Terminating service suspension (TESS) treatment (TCUTESS)

For DMS-100 local and DMS-100/200 local toll offices, TCUTESS counts calls that the system routes to treatment TESS. The system routes calls to treatment for one of the following reasons:

- An incoming operator verification call terminated on a busy line. The line has the suspended service (SUS) option assigned in table LENLINES or table IBNLINES.
- A call that originates on a line or a trunk call terminated on a line. The line has option SUS assigned in table LENLINES or table IBNLINES.

For DMS-MTX offices, TCUTESS counts calls that the system routes to the terminating service suspension treatment. The system routes calls to treatment because the terminating mobile is temporarily not correct.

This register does not increase in GL04.

Register TCUTESS release history

Register TCUTESS was introduced before BCS20.

GL04

Register does not increase.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUTINV

Temporarily invalid authorization code (TINV) treatment (TCUTINV)

For DMS-250 tandem offices, TCUTINV counts calls that the system routes to treatment TINV. The system routes calls to treatment because the authorization code that the subscriber dials is temporarily not correct.

Register TCUTINV release history

Register TCUTINV was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUUMOB

UnRegistered mobile (UMOB) treatment (TCUUMOB)

For DMS-MTX offices, TCUUMOB counts calls that the system routes to treatment UMOB. The system routes calls to treatment because the mobile identification number (MIN) of the mobile station is not correct. The mobile station attempts the origination.

Register TCUUMOB release history

Register TCUUMOB was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUUNCA

Unauthorized CAMA call (UNCA) treatment (TCUUNCA)

Register TCUUNCA is not active.

OM group TRMTCU (continued)

Register TCUUNCA release history

Register TCUUNCA was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUUNIN

Unauthorized INWATS call treatment (TCUUNIN)

The DMS-100 local, DMS-200 toll, and DMS-100/200 local toll offices use register TCUUNIN. Register TCUUNIN counts calls that the system routes to treatment UNIN for one of the following reasons:

- An INWATS call that originates from outside the state dialed an 800 + NX2 number where the system reserves NX2 codes for intrastate calls.
- An INWATS call that originates in the state dialed an 800 + NNX + XXXX number.
- An INWATS terminating call originates from a band that is further away than the terminator paid for.
- A call with an INWATS number that is not correct terminated on an INWATS line.
- A call that was not direct dialed terminated on an INWATS line.
- A call that originated in the local free calling area terminated on an INWATS line. The system cannot bill the subscriber for the call.

Register TCUUNIN release history

Register TCUUNIN was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUUNOW

Unauthorized OUTWATS call (UNOW) treatment (TCUUNOW)

The DMS-100 local and DMS-100/200 local toll offices use register TCUUNOW. Register TCUUNOW counts calls that the system routes to treatment UNOW.

The system routes a call that originates on an OUTWATS line to treatment UNOW. The system routes the call to treatment if the call originator dialed an out-of-band code.

Register TCUUNOW release history

Register TCUUNOW was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TRMTCU2

OM description

Customer not authorized treatment extension (TRMTCU2)

The OM group TRMTCU2 is an extension of group TRMTCU. The OM group TRMTCU2 counts calls that the system routes to a treatment. The treatment notifies the subscriber that an action is not correct for reasons of authorization.

These treatments normally indicate that the subscriber dials an invalid sequence of digits or follows a procedure that is not correct.

The OM group TRMTCU contains one register for each call treatment. The registers are named TCUnnnn, where nnnn is the external treatment abbreviation.

Release history

The OM group TRMTCU2 was introduced before BCS20.

BCS36

Register TCUITDN was introduced in BCS36.

BCS34

Registers TCUEROR, TCUERTR, TCUERTO and TCUESNF were introduced in BCS34.

BCS33

Registers TCUAARD and TCUGFNV were introduced in BCS33.

BCS32

Register TCUITCF was introduced in BCS32.

The call processing software increases registers. The call processing software provides the trunk-to-trunk interworking. The interworking is between CCS7 ISDN part (ISUP) and CCITT telephone user part (TUP) gateway trunk types.

BCS31

Registers TCUBCNI and TCUJACK were introduced in BCS31.

BCS30

Registers TCULCNV, TCUCGFL, TCUPTFL, and TCUVPFL were introduced in BCS30.

BCS29

Register TCUCCCF was introduced in BCS29.

BCS28

Registers TCUCCIR and TCUUCCN were introduced in BCS28.

BCS26

Register TCUBBFS was introduced in BCS26.

BCS24

Registers TCUCOSX and TCUCACB were introduced in BCS24.

BCS23

Registers TCUCNAC and TCUN00B were introduced in BCS23.

BCS21

Registers TCUSCUN, TCUINPD, TCUNPAR, and TCUIDPB were introduced in BCS21.

BCS20

Register TCUIVCC was introduced in BCS20.

Registers

The OM group TRMTCU2 registers appear on the MAP terminal as follows:

```
TCUCCNV     TCUCCNA     TCULCAB     TCUINCC
TCUANBB     TCUIVCC     TCUSCUN     TCUINPD
TCUNPAR     TCUIDPB     TCUCNAC     TCUN00B
TCUCOSX     TCUCACB     TCUBBFS     TCUCCIR
TCUUCCN     TCUCCCF     TCULCNV     TCUCGFL
TCUVPFL     TCUPTFL     TCUBCNI     TCUJACK
TCUITCF     TCUAARD     TCUGFNV     TCUEROR
TCUERTR     TCUERTO     TCUESNF     TCUITDN
```

The following treatments apply to DMS-100 local switching offices: IVCC, CACB, and BCNI.

The following treatment applies to DMS-200 toll switching offices: CACB.

The following treatments apply to DMS-100/200 local/toll switching offices: IVCC, CACB, and BCNI.

OM group TRMTCU2 (continued)

The following treatment applies to DMS-100/200 local/toll switching offices with TOPS and DMS-200 toll switching offices with TOPS: CCCF.

The following treatments apply to DMS-250 tandem switching offices: CCNV, CCNA, LCAB, INCC, ANBB, SCUN, INPD, NPAR, IDPB, N00B, COSX, BBFS, and JACK.

The following treatments apply to the DMS-300 gateway switching office: VPFL, PTFL, CGFL, and ITCF.

The treatment CNAC applies to ISDN.

Group structure

The OM group TRMTCU2 provides one tuple for each office.

Key field:
There is no key field.

Info field:
There is no info field.

Table TMTCNTL defines all treatments.

The operating company uses subtable TMTCNTL.TREAT to define the tone(s), announcement(s), or states (for example idle or lockout). The system returns these tone(s), announcement(s), or state(s) to the originator of a call. The system returns these tone(s), announcement(s), or state(s) when the system encounters a specified treatment code during translation of a call.

Table OFRT lists the sequence of tones, announcements, or states that returns to the originator of a call. The system returns these tone(s), announcement(s), or state(s) when the system encounters a specified treatment code during translation of a call.

Table CLLI defines the common language location identifier (CLLI) of each tone and announcement. The following tables define each treatment CLLI. The tables do not define fixed treatment CLLIs, IDLE (idle), LKOUT (lockout), and COPP (cutoff on permanent signal and partial dial).

- table TONES defines the CLLI for software-generated tones
- table STN defines the CLLI for hardware-generated tones
- table ANNS defines the CLLI for recorded announcements
- table DRAMS defines the CLLI for digital recorded announcements

A call can terminate to a specified treatment code for one of two reasons. The first reason is because the operating company supplies translations that lead the call to a treatment. The second reason is because the DMS switch detects specified conditions. The DMS switch prescribes a treatment code without reference to the operating company translations. These conditions are not a normal set of conditions and prevent the completion of a call.

The treatment code is part of a normal call completion process. The call completion process includes, for example, an announcement to the originator before the system completes the call.

The DMS switch can determine, (while the system translates a call), that the call must terminate to a specified treatment code. The switch accesses subtable TRTCNTL.TREAT to determine what announcement, tone, or state returns to the originator. The switch determines what route in table OFRT lists the sequence of tones, announcements, or states return to the originator.

Associated OM groups

The OM group TRMTCM counts calls that the system routes to a treatment. The treatment is a result of a customer action, and does not relate to authorization.

The OM group TRMTCU counts calls that the system routes to a treatment. The treatment notifies the subscriber that an action is not correct for reasons of authorization.

The OM group TRMTER counts calls that the system routes to a treatment because of a failure that switching equipment failure causes.

The OM group TRMTFR counts calls that the system routes to a treatment that is a normal sequence of a call.

The OM group TRMTFR2 is an extension of TRMTFR. The OM group TRMTFR2 counts calls that the system routes to a treatment that is a normal sequence of a call.

The OM group TRMTRS counts calls that the system routes to a treatment. The system routes the calls to treatment because of a failure caused by a lack of software or hardware resources.

OM group TRMTCU2 (continued)

Associated functional groups

The following functional groups associate with OM group TRMTCU2:

- DMS-100 Local
- DMS-200 Toll
- DMS-100/200 combined local and toll
- DMS-250 tandem switching office for common carriers
- Integrated Service Digital Network (ISDN)
- DMS-200 toll with TOPS
- DMS-100/200 combined local and toll with TOPS
- DMS-300 Gateway

Associated functionality codes

The associated functionality codes for OM group TRMTCU2 appear in the following table.

Functionality	Code
Common Basic	NTX001AA
ISDN Functional Mode Basic Rate Services (upgraded by NTX753AB)	NTX753AA
DMS-250 LEC Calling Card	NTXG47AA
DMS-250 TCAP Based Local Exch. Carrier (LEC) Calling Card	NTXG78AA
Service Screening Enhanced	NTXKO8AA

Register TCUAARD

Automatic number identification (ANI) account recently disallowed (TCUAARD)

Register TCUAARD increases when the system routes a call to ANI account recently disallowed (AARD) treatment. The system routes the call to treatment if the ANI status is recently disallowed.

Register TCUAARD release history

Register TUCAARD was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates TRKT202 when the system routes a call to AARD treatment.

Register TCUANBB

Automatic number identification (ANI) feature group B blockage (ANBB) treatment (TCUANBB)

For DMS-250 tandem office, register TCUANBB counts calls that the system routes to ANBB treatment.

The system routes a call to ANBB treatment if a call without a correct ANI attempts to access feature group B trunks. The system blocks the ANI that is not correct in table ANISCRNU.

Register TCUANBB release history

Register TCUANBB was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUBBFS

Blue box fraud screening (BBFS) treatment (TCUBBFS)

For DMS-250 tandem offices, register TCUBBFS counts calls that the system routes to BBFS treatment.

Register TCUBBFS release history

Register TCUBBFS was introduced in BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TRMTCU2 (continued)

Register TCUBCNI

Bearer capability not implemented (BCNI) treatment (TCUBCNI)

For DMS-100 local and DMS-100/200 local/toll end offices, TCUBCNI counts calls that the system routes to BCNI treatment. The system routes the calls to treatment because bearer capability checking fails at the terminating interface.

Register TCUBCNI release history

Register TCUBCNI was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCACB

Carrier access code blocked (CACB) treatment (TCUCACB)

For DMS-100/200 local/toll end offices with equal access, register TCUCACB counts calls that the system routes to CACB treatment. The system routes the calls to treatment because the system blocks dialed carrier access code (CAC) calls. The system blocks CAC calls for one of the following reasons:

- The carrier has chosen to not handle CAC calls.
- The carrier only handles traffic from customers that make the accessed carrier their primary inter-LATA carrier.

Register TCUCACB release history

Register TCUCACB was introduced in BCS24.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCCCF

TOPS carrier call completion failure (CCCF) treatment (TCUCCCF)

The DMS-100/200 local/toll switching offices with TOPS and DMS-200 toll switching offices with TOPS use register TCUCCCF. Register TCUCCCF

counts calls that the system routes to TOPS CCCF treatment. The system routes the calls to treatment because the selected first and alternate carrier cannot complete the TOPS carrier call.

Register TCUCCCF release history

Register TCUCCCF was introduced in BCS29.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCCIR

Credit card invalid release (CCIR) treatment (TCUCCIR)

Register TCUCCIR counts calls that the system routes to CCIR treatment because the credit card used is invalid.

Register TCUCCIR release history

Register TCUCCIR was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCCNA

Calling card not allowed (CCNA) treatment (TCUCCNA)

For DMS-250 tandem offices, Register TCUCCNA counts calls that the system routes to CCNA treatment.

In an international DMS-250 tandem office with the Credit Card Calling feature, the system routes a call to CCNA treatment. The system routes the call to treatment when the system assigns a credit card number as ABUSED in table CCTAB. The system takes the call down after the application of this treatment.

Register TCUCCNA release history

Register TCUCCNA was introduced before BCS20.

OM group TRMTCU2 (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCCNV

Calling card invalid (CCNV) treatment (TCUCCNV)

For DMS-250 tandem offices, register TCUCCNV counts calls that the system routes to CCNV treatment.

In a DMS-250 tandem office with the Mechanized Calling Card Service (MCCS) feature, the system routes a call to CCNV treatment. The system routes the call to treatment if the travel card number (TCN) is invalid. The subscriber has one more opportunity to enter a correct TCN. The system routes the call to an announcement.

In an international DMS-250 office with the Credit Card Calling feature, the system routes a call to CCNV treatment. The system routes the call to treatment if a credit card authorization code does not match the authorization code the subscriber filed against the card.

Register TCUCCNV release history

Register TCUCCNV was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCGFL

Closed User Group failure (CGFL) treatment (TCUCGFL)

For DMS-300 gateway offices, register TCUCGFL counts calls that the system routes to CGFL treatment. The system routes the calls to treatment if the call is not an authorized attempt to use Closed User Group Service. The service screening determines if the call is authorized.

Service screening by destination is an option available on DMS-300 gateway switches. The feature checks that each call only uses those services that are allowed at the destination.

Register TCUCGFL release history

Register TCUCGFL was introduced in BCS30.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 when the system routes a call is to a treatment after being call processing busy.

Register TCUCNAC

Call not accepted (CNAC) treatment (TCUCNAC)

For offices with ISDN, register TCUCNAC counts calls that the system routes to CNAC treatment. The system routes the calls to treatment because the bearer capability of the originator is not compatible with that of the terminator.

Register TCUCNAC release history

Register TCUCNAC was introduced in BCS23.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCOSX

Class of service exceeded (COSX) treatment (TCUCOSX)

For DMS-250 tandem offices, register TCUCOSX counts calls that the system routes to COSX treatment. The system routes the calls to treatment because the call failed class-of-service screening.

Register TCUCOSX release history

Register TCUCOSX was introduced in BCS24.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TRMTCU2 (continued)

Register TCUEROR

Enhanced roamer validation (ERV) originator treatment (TCUEROR)

Register TCUEROR increases when the tumbling electronic serial number (TESN) process of the ERV system finds an invalid originating mobile. When the clearinghouse, which provides the ERV services, identifies an originating mobile as fraudulent, this treatment is set.

Register TCUEROR release history

Register TCUEROR was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

The system generates ERV100 when the ERV originator treatment is set.

Register TCUERTO

Enhanced roamer validation (ERV) timeout treatment (TCUERTO)

Register TCUERTO increases when a cellular call times out while waiting for a response from a clearinghouse. The clearinghouse provides real-time positive roamer validation services and maintains a positive subscriber database.

Register TCUERTO release history

Register TCUERTO was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

The system generates ERV102 when the ERV originator treatment is set.

Register TCUERTR

Enhanced roamer validation (ERV) terminator treatment (TCUERTR)

Register TCUERTR increases when the tumbling electronic serial number (TESN) process of the ERV system finds an invalid terminating mobile. When the clearinghouse, which provides the ERV services, identifies a terminating mobile as fraudulent, this treatment is set.

Register TCUERTR release history

Register TCUERTR was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

The system generates ERV101 when the ERV terminator treatment is set.

Register TCUESNF

Customer unauthorized electronic serial number (ESN) fraud treatment (TCUESNF)

Register TCUESNF increases when the subscriber makes a call attempt from a mobile (originating call) with a false manufacturer ESN code. The datafill in table ESN FRAUD determine if a manufacturer ESN code is false. The register increases when the system blocks the call. This event causes the originator to receive the ESNF treatment.

If a subscriber uses a mobile with a false manufacturer ESN code to make an E911 call. The system does not block the call. The ESNF treatment does not apply, and register TCUESNF does not increase.

Register TCUESNF applies to DMS-MTX offices.

Register TCUESNF release history

Register TCUESNF was introduced in BCS34.

Associated registers

Register ESNFRAUD increases when the subscriber makes a call attempt to or from a mobile with a false manufacturer ESN code. The entries in table ESN FRAUD determine if the manufacturer ESN code is false. The register increases when the system blocks the call. Register ESN FRAUD is in OM group OMMTXSYS.

Register TCUESNF £ OMMTXSYS_ESNFRAUD

Associated logs

The system generates ESNF100 when the system blocks an originating or terminating mobile with a false manufacturer ESN code. The system also generates this log when the subscriber uses a mobile with a false manufacturer ESN code to make an E911 call. The system also generates this log when the system does not block the call.

OM group TRMTCU2 (continued)

Register TCUGFNV

Register FONCARD not-valid treatment (TCUGFNV)

Register TCUGFNV increases when the system routes a call to the global fiber optic network card (FONCARD) not-valid treatment. The system routes the call to treatment when the global FONCARD is not correct. The global FONCARD is not correct because the global FONCARD is not datafilled, or is datafilled as invalid at the service control point.

Register TCUGFNV release history

Register TCUGFNV was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUIDPB

International direct distance dialing (IDDD) prohibited (IDPB) treatment (TCUIDPB)

For DMS-250 tandem offices, register TCUIDPB counts calls that the system routes to IDPB treatment.

The system routes an IDDD call to IDPB treatment. The system routes the call to treatment if the call originates from a subscriber that cannot use an IDDD destination number. The authorization code or automatic number identification (ANI) database of the subscriber specifies that the subscriber cannot use this IDDD number.

Register TCUIDPB release history

Register TCUIDPB was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUINCC

Invalid city code (INCC) treatment (TCUINCC)

For DMS-250 tandem offices, register TCUINCC counts calls that the system routes to INCC treatment. The system routes the calls to treatment because the caller dialed an invalid city code.

Register TCUINCC release history

Register TCUINCC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUINPD

Invalid personal identification number digit (INPD) treatment (TCUINPD)

For DMS-250 tandem offices, register TCUINPD counts calls that the system routes to INPD treatment. The system routes the calls to treatment because the personal identification number (PIN) digits do not match. The subscriber dials the PIN digits which do not match the authorization code database.

Register TCUINPD release history

Register TDUINPD was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUITCF

Information transfer capability failed (ITCF) treatment (TCUITCF)

For DMS-300 gateway offices, register TCUITCF counts calls that the system routes to ITCF treatment. The system routes the calls to treatment because of an information transfer capability value that is not correct.

Register TCUITCF release history

Register TCUITCF was introduced in BCS32.

Associated registers

There are no associated registers.

OM group TRMTCU2 (continued)

Associated logs

There are no associated logs.

Register TCUITDN

Treatment international toll denied (TCUITDN)

Register TCUITDN increases when the system applies treatment International Toll Denied.

Register TCUITDN release history

Register TCUITDN was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUIVCC

Invalid corridor call (IVCC) treatment (TCUIVCC)

The DMS-100 local and DMS-100/200 local/toll end offices with equal access use register TCUIVCC. Register TCUIVCC counts calls that the system routes to IVCC treatment.

The system routes a call to IVCC treatment when a subscriber attempts to make an inter-LATA call. The call is outside the inter-LATA corridor of the operating company.

Register TCUIVCC release history

Register TCUIVCC was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUJACK

Justified alternate calling knowledge (JACK) treatment (TCUJACK)

For DMS-250 tandem offices, register TCUJACK counts hotel calls that the system routes to JACK treatment. The system routes the call to treatment

because the call fails line information database (LIDB) verification twice. The JACK treatment can route to an announcement, tone, or terminating trunk.

Register TCUJACK release history

Register TCUJACK was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCULCAB

Local call area barred (LCAB) treatment (TCULCAB)

For DMS-250 tandem offices, register TCULCAB counts calls that the system routes to LCAB treatment.

The system routes a local call to LCAB treatment if the call attempts to use a carrier. Carriers cannot complete calls that originate and terminate in the same local calling area.

Register TCULCAB release history

Register TCULCAB was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCULCNV

Local exchange carrier (LEC) calling card not valid (LCNV) treatment (TCULCNV)

For DMS-250 tandem offices, register TCULCNV counts calls that the system routes to LCNV treatment. The system routes the calls to treatment because a subscriber enters an LEC calling card number that is not correct. An announcement prompts the subscriber to enter a correct number.

For LEC calling card calls, the system does not access table TMTCNTL. To receive a credit-card invalid announcement, the user must enter LCNV treatment in table MCCSANNS.

OM group TRMTCU2 (continued)

Register TCULCNV release history

Register TCULCNV was introduced in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUN00B

N00 call blocked (N00B) treatment (TCUN00B)

The DMS-250 tandem offices with CCS7 transaction capabilities application part (TCAP)-based service feature use register TCUN00B. Register TCUN00B counts calls that the system routes to N00B treatment when the N00 database blocks the N00 number.

Register TCUN00B release history

Register TCUN00B was introduced in BCS23.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUNPAR

Numbering plan area restricted (NPAR) treatment (TCUNPAR)

For DMS-250 tandem offices, register TCUNPAR counts calls that the system routes to NPAR treatment. The system routes the calls to treatment for one of the following reasons:

- an INWATS call that a subscriber dials. The numbering plan area (NPA) of the subscriber is assigned BLOCKED in table IEXCLUDE
- a subscriber dials a universal access code followed by an 800 number

Register TCUNPAR release history

Register TCUNPAR was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUPTFL

Plain ordinary telephone service (POTS) failure (PTFL) treatment (TCUPTFL)

For DMS-300 gateway offices, register TCUPTFL counts calls that the system routes to PTFL treatment. The system routes the call to treatment because service screening determines the call is not an authorized attempt to use POTS service.

Service screening by destination is an option available on DMS-300 gateway switches. The feature checks that each call only uses the services allowed at the destination.

Register TCUPTFL release history

Register TCUPTFL was introduced in BCS30.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 when the system routes a call to a treatment after being call-processing busy.

Register TCUSCUN

Service currently unavailable (SCUN) treatment (TCUSCUN)

For DMS-250 tandem offices, register TCUSCUN counts calls that the system routes to SCUN treatment.

The system routes 0+ONNET call to SCUN treatment when the call cannot access an operator.

Register TCUSCUN release history

Register TCUSCUN was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TRMTCU2 (end)

Register TCUUCCN

Unpaid credit card (UCCN) treatment (TCUUCCN)

Register TCUUCCN counts calls that receive UCCN treatment.

Register TCUUCCN release history

Register TCUUCCN was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUVPFL

Virtual private network failure (VPFL) treatment (TCUVPFL)

For DMS-300 gateway offices, TCUVPFL counts calls that the system routes to VPFL treatment. The system routes the calls to treatment because the call is not an authorized attempt to use virtual private network service. The service screening determines if the call is not an authorized attempt.

Service screening by destination is an option available on DMS-300 gateway switches. The feature checks that each call uses only the services allowed at the destination.

Register TCUVPFL release history

Register TCUVPFL was introduced in BCS30.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 when the system routes a call to treatment after being call-processing busy.

OM group TRMTCU3

OM description

Customer unauthorized treatment extension

The OM group TRMTCU3 is an extension of group TRMTCU. The OM group TRMTCU3 counts calls that the system routes to a treatment. The treatment notifies the subscriber that an action is not correct for reasons of authorization.

These treatments indicate if the subscriber dials a sequence of digits that is not correct. These treatments also indicate if the subscriber follows a procedure that is not correct.

The OM group TRMTCU contains one register for each call treatment. The registers are TCUnnnn, where nnnn is the external treatment abbreviation.

Release history

EUR006

Registers TCUUNMC and TCUFACJ were introduced in EUR006.

NA006

Registers TCUMSOA and TCUATHF were introduced in NA006.

The OM group TRMTCU3 was introduced in TL04.

Registers

The OM group TRMTCU3 has no active registers.

This OM group contains spare registers that are not in use, but are visible to the user.Later software releases will use these registers. The releases document the register at that time. The following spare registers appear on the MAP terminal:

```
TCUMSOA     TCUATHF     TCUMSUS     TCUUNMC
TCUFACJ     CUSPR5      CUSPR6      CUSPR7
CUSPR8      CUSPR9      CUSPR10     CUSPR11
CUSPR12     CUSPR13     CUSPR14     CUSPR15
CUSPR16     CUSPR17     CUSPR18     CUSPR19
CUSPR20     CUSPR21     CUSPR22     CUSPR23
CUSPR24     CUSPR25     CUSPR26     CUSPR27
CUSPR28     CUSPR29     CUSPR30     CUSPR31
CUSPR32
```

OM group TRMTCU3 (continued)

When a spare register is first put to use, the register retains the name that appears in the preceding table. With the release of the Northern Telecom software, its name changes to reflect the use of the register.

The following treatments apply to DMS-100 local switching offices: IVCC, CACB, and BCNI.

The following treatments apply to DMS-200 toll switching offices: CACB.

The following treatments apply to DMS-100/200 local/toll switching offices: IVCC, CACB, and BCNI.

The following treatment applies to DMS-100/200 local/toll switching offices with TOPS and DMS-200 toll switching offices with TOPS: CCCF.

The following treatments apply to DMS-250 tandem switching offices: CCNV, CCNA, LCAB, INCC, ANBB, SCUN, INPD, NPAR, IDPB, N00B, COSX, BBFS, and JACK.

The following treatments apply to the DMS-300 gateway switching office: VPFL, PTFL, CGFL, and ITCF.

The treatment CNAC applies to ISDN.

The following treatments apply to DMS-100E ETSI ISDN Base services: UNMC and FACJ.

Group structure

The OM group TRMTCU3 provides one tuple for each office.

Key field:
There is no key field.

Info field:
There is no info field.

Table TMTCNTL defines all treatments.

The operating company uses subtable TMTCNTL.TREAT to define the tone(s), announcement(s), or states (for example idle or lockout) that the system returns to the originator of a call. The system returns the signals if the originator encounters a specified treatment code. The system encounters the treatment code during translation of a call.

Table OFRT lists the sequence of tones, announcements, or states that the system returns to the originator of a call. The signals return to the originator

when the system encounters a specified treatment code during translation of a call.

Table CLLI defines the common language location identifier (CLLI) of each tone and announcement. The descriptions for each treatment CLLI appear in one of the following tables:

- table TONES defines the CLLI for software-generated tones
- table STN defines the CLLI for hardware-generated tones
- table ANNS defines the CLLI for recorded announcements
- table DRAMS defines the CLLI for digital recorded announcements

A call terminates to a specified treatment code because the operating company supplied translations that lead the call to a treatment. A call also terminates to a specified treatment code because the DMS switch detects conditions and prescribes a treatment code. The switch prescribes a treatment code without reference to the operating company translations. These conditions are not a normal set of conditions that prevent the completion of a call.

Occasionally, the treatment code is part of a normal call completion process. A normal call completion process includes, for example, an announcement to the originator before the call is complete.

While the DMS switch translates a call, the switch can determine if the call must terminate to a specified treatment code. If the call must terminate to a specified treatment code, the DMS switch accesses subtable TRTCNTL.TREA. The DMS switch accesses the subtable to determine what announcement, tone, or state returns to the originator. The switch also determines which route in table OFRT lists the sequence of signals that the system returns to the originator.

Associated OM groups

The OM group TRMTCM counts calls that the system routes to a treatment that is the result of a customer action. The treatment does not relate to authorization.

The OM group TRMTCU counts calls that the system routes to a treatment. The treatment notifies the subscriber that an action is not appropriate for reasons of authorization.

The OM group TRMTER counts calls that the system routes to a treatment. The system routes the calls because of a failure caused by switching equipment failure.

OM group TRMTCU3 (continued)

The OM group TRMTFR counts calls that the system routes to a treatment that is a normal progression of a call.

The OM group TRMTFR2 is an extension of TRMTFR. The OM group TRMTFR2 counts calls that the system routes to a treatment that is a normal progression of a call.

The OM group TRMTRS counts calls that the system routes to a treatment. The system routes the calls to treatment because of a failure caused by a lack of software or hardware resources.

Associated functional groups

The following functional groups associate with the OM group TRMTCU3:

- DMS-100 Local
- DMS-200 Toll
- DMS-100/200 Combined local and toll
- DMS-250 Tandem switching office for common carriers
- integrated service digital network (ISDN)
- DMS-200 Toll with TOPS
- DMS-100/200 Combined local and toll with TOPS
- DMS-300 Gateway
- DMS-100E ETSI ISDN Base services

Associated functionality codes

The associated functionality codes for the OM group TRMTCU3 appear in the following table.

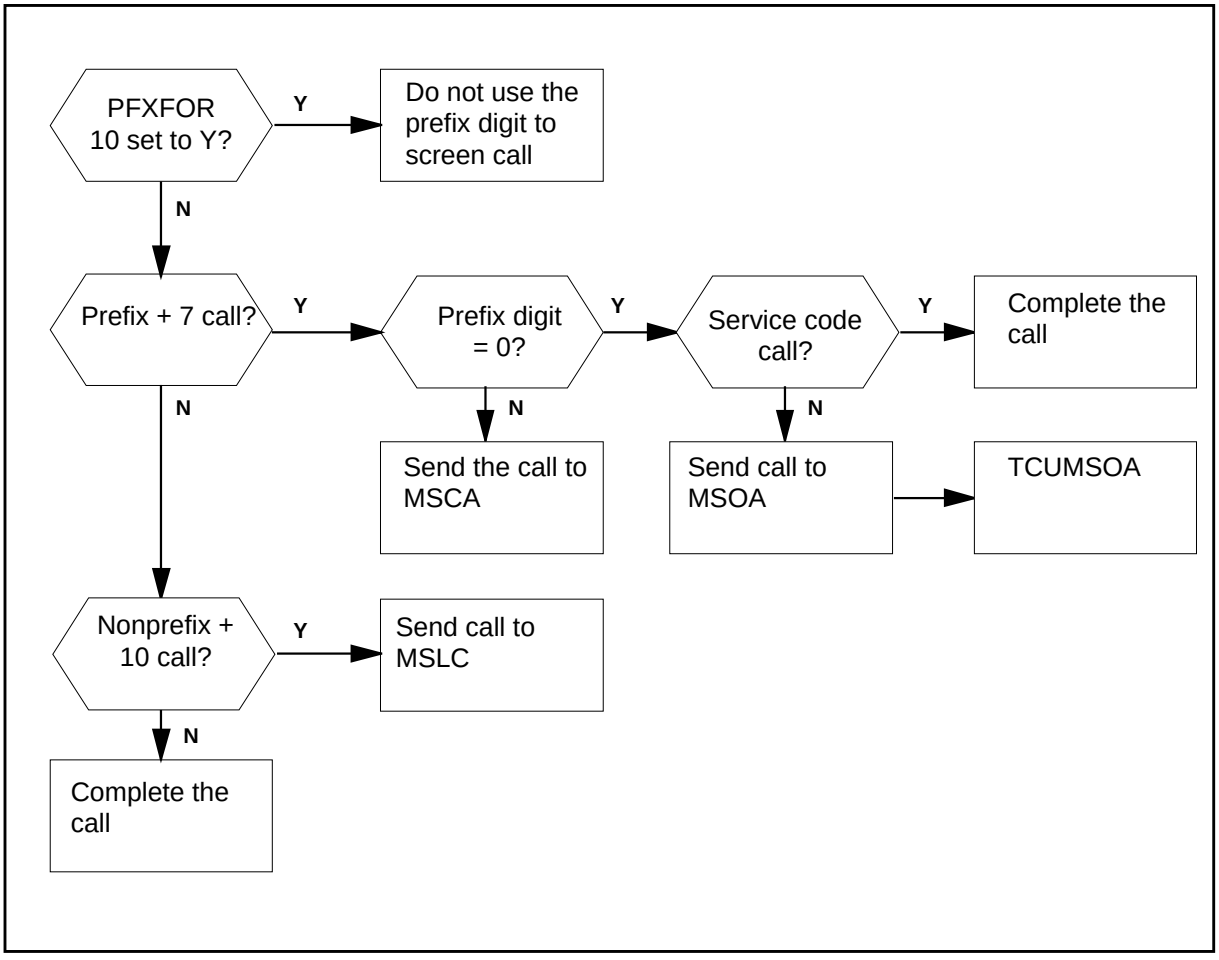
(Sheet 1 of 2)

Functionality	Code
Common Basic	NTX001AA
ISDN Functional Mode Basic Rate Services (upgraded by NTX753AB)	NTX753AA
DMS 250 LEC Calling Card	NTXG47AA
DMS-250 TCAP Based Local Exch. Carrier (LEC) Calling Card	NTXG78AA

(Sheet 2 of 2)

Functionality	Code
Service Screening Enhanced	NTXKO8AA
ETSI ISDN Base ServicesWorld Trade other services	SULN0002

OM group TRMTCU3 registers



Register TCUMSOA release history

Register TCUMSOA was introduced in NA006.

Register TCUMSOA records the times the system applies the Misdirected Operator Assisted treatment.

OM group TRMTCU3 (end)

Register TCUATHF release history

Register TCUATHF was introduced in NA006.

The computer module (CM) pegs register TCUATHF in the MSC-S. The CM pegs the register when the system applies an authentication failure treatment to a Mobile originated call.

Register TCUMSUS release history

Register TCUMSUS was introduced in MTX06.

The CM pegs register TCUMSUS in the MSC-S when the system applies a Mobile suspended (MSUS) treatment.

Register TCUUNMC release history

Register TCUUNMC was introduced in EUR006.

Register TCUUNMC records the times the system applies the User Not Member of Closed user group (CUG) treatment, UNMC.

Register TCUUNMC release history

Register TCUFACJ was introduced in EUR006.

Register TCUFACJ records the times the system applies the Facility Rejected treatment, FACJ.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group TRMTER

OM description

Equipment-related treatment group (TRMTER)

The OM group TRMTER counts calls that the system routes to a treatment. The system routes the calls to a treatment because of a failure caused by a switching equipment failure.

The OM group TRMTER contains one register for each call treatment. The registers are TERnnnn, where nnnn is the external treatment abbreviation. The register increases each time the system routes a call to that treatment.

Release history

The OM group TRMTER was introduced prior to BCS20.

GL04

DMS-100G added to register descriptions TERDTFL, TERRODR, TERSONI, and TERSYFL. Treatment description added for DMS-100G switch.

BCS36

Effectivity for DMS-100 international switches was introduced in BCS36.

BCS35

Registers TERQ33A and TERQ33B were introduced in BCS35.

BCS32

Registers TERPERR, TERINVM, and TERSONI were introduced in BCS32.

BCS26

Registers TERDTFL and TERC7AP were introduced in BCS26.

BCS24

Register TERINBT was introduced in BCS24.

BCS22

Registers TERANFL and TERMTOC were introduced in BCS22.

Registers

The following OM group TRMTER registers appear on the MAP terminal as follows:

OM group TRMTER (continued)

```
TERSYFL     TERSSTO     TERRODR     TERPNOH
TERPTOF     TERNMZN     TERERDS     TERSTOB
TERSTOC     TERINOC     TERAIFL     TERFDER
TERCONP     TERSCFL     TERNONT     TERNCUN
TERANFL     TERMTOC     TERINBT     TERC7AP
TERDTFL     TERPERR     TERINVM     TERSONI
TERQ33A     TERQ33B
```

This OM group contains spare registers that are not in use, but are visible to the user. Future software releases will use these registers. The registers will be documented at that time. The following spare registers appear on the MAP terminal:

```
ERSPR1  ERSPR2  ERSPR3  ERSPR4
ERSPR5  ERSPR6
```

When a spare register is first put to use, the register retains the name that appears in the preceding table. With the next release of the Northern Telecom software, the name will change to reflect the use.

The following treatments apply to DMS-100 local switching offices: SYFL, SSTO, RODR, ERDS, and AIFL.

The following treatments apply to DMS-200 toll switching offices: SYFL, SSTO, RODR, and ERDS.

The following treatment applies to DMS-100 local (international NETAS) switching offices: INBT.

The following treatments apply to DMS-100 international switching offices: SYFL, RODR, and INBT.

The following treatment applies to DMS-100 local (K&S Austria) switching offices: FDER.

The following treatments apply to DMS-100/200 local toll switching offices: SYFL, SSTO, RODR, ERDS, STOB, STOC, INOC, and AIFL.

The following treatments apply to DMS-MTX mobile telephone exchanges: SYFL and RODR.

The following treatments apply to DMS-300 gateway switching offices: SYFL, RODR, and ERDS.

The following treatments apply to DMS-250 tandem switching offices: RODR, CONP, SCFL, NONT, and NCUN.

The following treatments apply to DMS-100G switch: DTFL, RODR, SONI, and SYFL.

Group structure

The OM group TRMTER provides one tuple for each office.

Key field:
There is no key field.

Info field:
There is no info field.

Table TMTCNTL defines all treatments.

The operating company uses subtable TMTCNTL.TREAT to define the tone(s), announcement(s), and/or states that the system returns to the originator of a call. The system returns the tone, for example, if the originator encounters a specified treatment code during translation of a call. If a treatment code does not apply to an office type, the treatment is redundant. The treatment is set to overflow or like tone.

Table OFRT lists the sequence of tones, announcements, or states that the system returns to the originator of a call. The system returns these signals if the system encounters a specified treatment code during translation of a call.

Table CLLI defines the common language location identifier (CLLI) of each tone and announcement. The description for each treatment CLLI appears in one of the following tables:

- Table TONES defines the CLLI for software-generated tones.
- Table STN defines the CLLI for hardware-generated tones.
- Table ANNS defines the CLLI for recorded announcements.
- Table DRAMS defines the CLLI for digital recorded announcements.

A call can terminate in a specified treatment code because the operating company supplied translations that lead the call to a treatment. A call also terminates in a specified treatment code because the DMS detects certain conditions and prescribes a treatment code. The DMS switch prescribes a

OM group TRMTER (continued)

treatment code without reference to the operating company translations. These conditions are not normal and prevent the completion of the call.

Occasionally, the treatment code is part of a normal call completion process. A normal call completion process includes an announcement to the originator before the call is complete.

When the DMS switch translates a call, the DMS can determine if a call must terminate in a specified treatment code. If the call must terminate in a specified treatment code, the DMS switch accesses the subtable TRTCNTL.TREAT. The DMS accesses the subtable to determine what tones, announcements, or states to return to the originator. The switch also determines which route in table OFRT lists the sequence of tones, announcements, or states to return to the originator.

Associated OM groups

The OM group TRMTCM counts calls that the system routes to a treatment as a result of a customer action. The treatment does not relate to authorization.

The OM group TRMTCU counts calls that the system routes to a treatment. The treatment notifies the subscriber that an action is not appropriate for reasons of authorization.

The OM group TRMTCU2 is an extension of group TRMTCU. The OM group TRMTCU2 counts calls that the system routes to a treatment. The treatment notifies the subscriber that the action is not appropriate for reasons of authorization.

The OM group TRMTFR counts calls that the system routes to a treatment that is a normal sequence of a call.

The OM group TRMTRS counts calls that the system routes to a treatment. The system routes the calls because of a failure caused by a loss of software or hardware resources.

Associated functional groups

The following functional groups associate with the OM group TRMTER:

- DMS-100 local
- DMS-100 local (international NETAS)
- DMS-100 local (K&S Austria)
- DMS-200 Toll
- DMS-100/200 combined local and toll

- DMS-300 international gateway for North America
- DMS-250 tandem switching office for common carriers
- DMS-MTX mobile telephone exchange

Associated functionality codes

The associated functionality codes for the OM group TRMTER appear in the following table.

Functionality	Code
Common Basic	NTX001AA

Register TERAIFL

Auto identified outward dialing (AIOD) failure (AIFL) treatment (TERAIFL)

Register TERAIFL counts calls for DMS-100 local and DMS-100/200 local toll offices, register TERAIFL counts calls that the system routes to AIFL treatment.

The system routes an incoming call on a PBX line with the AIOD feature to AIFL treatment. The system also routes an incoming call on a trunk of group type PX or P2 with the AIOD feature to AIFL treatment. The system routes a call to treatment if the DMS fails to receive the AIOD message over the AIOD data link in the specified delay.

Register TERAIFL release history

Register TERAIFL was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 when the system routes a call to treatment after being call processing busy.

Register TERANFL

Announcement fail (ANFL) treatment (TERANFL)

Register TERANFL counts calls that the system routes to ANFL treatment for reasons that the licensee assigns.

OM group TRMTER (continued)

This register supports the integration of software loads for the licensee.

Register TERANFL release history

Register TERANFL was introduced in BCS22.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERC7AP

CCS7 application (C7AP) failure treatment (TERC7AP)

For access tandem and equal access end offices, register TERC7AP counts service switching point (SSP) calls. The register counts calls that the system routes to C7AP treatment. The system routes the calls to treatment for one of the following reasons:

- service control point database time-out or trouble
- transaction capabilities application part (TCAP) message decoding problems
- transaction identification is not available for SSP calls or
- carrier identification for 800 calls is not correct

The C7AP treatment is available instead of RODR. The RODR treatment is now dedicated for distorted signals during dialing or in-pulsing.

Register TERC7AP release history

Register TERC7AP was introduced in BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERCONP

Connection not possible (CONP) treatment (TERCONP)

For DMS -250 tandem offices, register TERCONP counts calls that the system routes to CONP treatment. The system routes calls to CONP treatment when 3L-to-3L blocking does not allow a carrier to complete a call.

Register TERCONP release history

Register TERCONP was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

The system generates TRK138 when the system routes a call to a treatment after being call processing busy.

Register TERDTFL

Equipment related treatment of datafill error (TERDTFL)

For DMS-100G switch.

Register TERDTFL counts the number of times the system encounters an error in datafill.

Register TERDTFL release history

Register TERDTFL was introduced before BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERERDS

Trunk permanent ground (ERDS) treatment (TERERDS)

Register TERERDS counts calls that the system routes to ERDS treatment. The DMS-100 local, DMS-200 toll, DMS-100/200 local toll, and DMS-300 gateway office use register TERERDS. The system routes a call to ERDS treatment because the system detects a permanent ground during a call.

Register TERERDS release history

Register TERERDS was introduced before BCS20.

Associated registers

There are no associated registers.

OM group TRMTER (continued)

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

The system generates TRK138 when the system routes a call to a treatment after being call processing busy.

Register TERFDER

Feature data error (FDER) treatment (TERFDER)

For DMS-100 local K&S offices (Austria), register TERFDER counts calls that the system routes to FDER treatment.

The system routes calls that originate in DMS-100 switches with the Call Forwarding K&S (Austria) feature to FDER treatment. The system routes the calls to treatment when a caller attempts a call forward that is not correct.

North American DMS-100 switches do not use the FDR treatment.

Register TERFDER release history

Register TERFDER was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

Register TERINBT

Installation busy (INBT) treatment (TERINBT)

For DMS-100 local (International NETAS), and international offices, register TERINBT counts calls that the system routes to INBT treatment. The system routes the calls to treatment because an incoming call attempts to terminate on a line. The link is in the installation busy (INB) state.

Register TERINBT release history

Register TERINBT was introduced in BCS24.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERINOC

Invalid operator code (INOC) treatment (TERINOC)

For DMS-100/200 local toll offices, register TERINOC counts calls that the system routes to INOC treatment. The system routes the calls to treatment when the Auxiliary Operator Services System (AOSS) trunk sends an invalid operator identification code (OIC).

Register TERINOC release history

Register TERINOC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 when the system routes a call to treatment after being call processing busy.

Register TERINVM

Equipment-related treatment of an invalid message (TERINVM)

Register TERINVM increases when the called party number receives an invalid numbering plan indicator. The register also increases when the called party receives an invalid calling party category.

Register TERINVM release history

Register TERINVM was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERMTOC

Multifrequency compelled (MFC) time-out or confusion (MTOC) treatment

Register TERMTOC counts calls that the system routes to MTOC treatment for reasons that the licensee assigns. This register supports integration of software loads for the licensee.

OM group TRMTER (continued)

Register TERMTOC release history

Register TERMTOC was introduced in BCS22.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERNCUN

National Communications System (NCS) unexpected error (NCUN) treatment (TERNCUN)

For DMS-250 tandem offices, register TERNCUN counts calls that the system routes to NCUN treatment if:

- the action code in a response message received from the NCS is 8 (unexpected error) on a virtual private network (VPN) call
- the action code in a response message received from the NCS is 5, 23, or 63 (not used)

Register TERNCUN release history

Register TERNCUN was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 when the system routes a call to a treatment after being call processing busy.

Register TERNMZN

No metering zone (NMZN) treatment (TERNMZN)

Register TERNMZN is not active.

Register TERNMZN release history

Register TERNMZN was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERNONT

Not on network (NONT) treatment (TERNONT)

For DMS-250 tandem offices, register TERNONT counts calls that the system routes to NONT treatment. The system routes the calls to treatment when the caller attempts a call origination to an area code. The area code is not on the network.

Register TERNONT release history

Register TERNONT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

The system generates TRK138 when the system routes a call to a treatment after being call processing busy.

Register TERPERR

Equipment-related treatment of protocol error (TERPERR)

Register TERPERR increases when the system routes a call to protocol error treatment.

Register TERPERR release history

Register TERPERR was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERPNOH

Permanent signal no receiver off-hook (PNOH) treatment (TERPNOH)

Register TERPNOH is not active.

OM group TRMTER (continued)

Register TERPNOH release history

Register TERPNOH was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERPTOF

Premature trunk offering (PTOF) treatment (TERPTOF)

Register TERPTOF is not active.

Register TERPTOF release history

Register TERPTOF was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERQ33A

Q33 fault treatment on incoming trunks (TERQ33A)

Register TERQ33F counts the number of calls sent to treatment. The system sends calls to treatment because of a Q33 fault on an incoming trunk. A Q33 fault occurs when AB bits of time slot 16 are set to (A=B=1).

Register TERQ33A release history

Register TERQ33A was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK149 when a Q33 failure occurs on a given trunk.

Register TERQ33B

Q33 fault treatment on outgoing trunks (TERQ33B)

Register TERQ33F counts the number of calls sent to treatment. The system sends calls to treatment because of a Q33 fault on an outgoing trunk. A Q33 fault occurs when AB bits of time slot 16 are set to (A=B=1).

Register TERQ33B release history

Register TERQ33B was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK149 when a Q33 failure occurs on a given trunk.

Register TERRODR

Reorder (RODR) treatment (TERRODR)

The DMS-100 local, international, DMS-100G, DMS-200 toll, and DMS-100/200 local toll offices use register TERRODR. Register TERRODR counts calls the system routes to RODR treatment for one of the following reasons:

- the system received distorted signals during dialing or in-pulsing
- an attempt to outpulse too many digits to a trunk of group type OP occurred

For DMS-300 gateway offices, register TERRODR counts calls that the system routes to RODR treatment.

The system routes calls incoming on a private line, R1 signaling trunk, or international 101 test line to RODR treatment. The system routes the calls to treatment for one of the following reasons:

- the selector in the chosen route list is not known while the call is in routing
- a time-out occurs before the subscriber dials all the digits
- while the call is in translation, one of the following occurs. An translation result is not correct. A key pulse (KP) signal is not correct. Or a signaling type is not correct.

The system routes calls outgoing on an R1 signaling trunk, a no. 5 signaling trunk, or an international 101 test line to RODR treatment. The system routes the calls to treatment if the selector in the chosen route list is not known.

OM group TRMTER (continued)

The system routes calls outgoing on a no. 6 signaling trunk to RODR treatment if:

- the selector in the chosen route list is not known while the system routes the call
- a timeout occurs while or before the caller dials the digits

For DMS-250 tandem offices, register TERRODR counts calls that the system routes to RODR treatment for one of the following reasons:

- the number of digits the caller dials is more than the maximum number required
- a digit receiver or network path is not available for foreign exchange office (FXO) or foreign exchange station (FXS) circuit
- the speed number database did not return enough digits for translation to make a determination
- an error condition that is not expected occurs on an outgoing trunk while a call is up
- a treatment is set that does not appear in the trunk-group-specific treatment subtable, or in subtable TMTCNTL.OFFTREAT

For DMS-MTX offices, register TERRODR counts calls that the system routes to RODR treatment for one of the following reasons:

- the number of digits pulsed on an incoming trunk is more than the maximum required
- an error condition that is not expected occurs on an outgoing trunk while a call is up
- a resource is not available
- no page response from a mobile unit

Register TERRODR release history

Register TERRODR was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

The system generates TRK138 when the system routes a call to a treatment after being call processing busy.

Register TERSCFL

Database system communication failure (SCFL) treatment (TERSCFL)

For DMS-250 tandem offices, register TERSCFL counts calls that the system routes to database SCFL treatment for one of the following reasons:

- a failure in the communications link to the National Communications System (NCS) prevents the processing of virtual private network (VPN) calls
- the VPN transaction processing feature cannot hold onto a request because the WAIT_FOR_ACK queue is full
- the NCS communications software in the DMS-250 fails to respond
- the system detects an error in the data received from the NCS
- communication links are not available to the NCS

Register TERSCFL release history

Register TERSCFL was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 when the system routes to a treatment after being call processing busy.

Register TERSONI

Equipment-related treatment of service or option not implemented (TERSONI)

Register TERSONI increases when the system receives a circuit existence indicator that is not correct. The register also increases when the system receives a teleservice indicator in an initial address message.

Register TERSONI release history

Register TERSONI was introduced in BCS32.

Associated registers

There are no associated registers.

OM group TRMTER (continued)

Associated logs

There are no associated logs.

Register TERSSTO

Start signal time-out (SSTO) treatment (TERSSTO)

The DMS-100 local, DMS-200 toll, and DMS-100/200 local toll use register TERSSTO. Register TERSSTO counts calls that the system routes to SSTO treatment for one of the following reasons:

- time-out waiting for an operator answer
- automatic number identification (ANI) outpulse failure or time-out, while the system outpulses the called number or the ANI information
- failure on an outgoing trunk during remote office test line (ROTL) tests

Register TERSSTO release history

Register TERSSTO was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

The system generates TRK121 when the system encounters a problem while the system outpulses on an outgoing trunk.

The system generates TRK138 when the system routes a call to a treatment after being call processing busy.

Register TERSTOB

Signal timeout Bell operating company (STOB) treatment (TERSTOB)

For DMS-100/200 local toll, register TERSTOB counts calls that the system routes to STOB treatment.

The system routes a call in an equal access environment over an access tandem (AT) trunk to STOB treatment. The system routes the call to treatment because the AT trunk does not receive equal access end office (EAEO) wink.

Register TERSTOB release history

Register TERSTOB was introduced before BCS20.

Associated registers

Register TERSTOC counts calls that the system routes to signal timeout inter-LATA/international carrier (STOC) treatment. The system routes a call in an equal access environment over an AT trunk to STOC treatment. The system routes the call to STOC treatment because the AT trunk does not receive inter-LATA carrier/international carrier wink(s).

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

The system generates TRK121 when the system encounters a problem during outpulsing on an outgoing trunk.

The system generates TRK138 when the system routes a call to a treatment after being call processing busy.

Register TERSTOC

Signal timeout inter-LATA carrier (IC)/international carrier (INC) (STOC) treatment (TERSTOC)

For DMS-100/200 local toll, TERSTOC counts calls that the system routes to STOC treatment.

The system routes a call in an equal access environment over an access tandem (AT) trunk to STOC treatment. The system routes the call to STOC treatment because the AT does not receive IC/INC wink(s).

Register TERSTOC release history

Register TERSTOC was introduced before BCS20.

Associated registers

Register TERSTOB counts calls that the system routes to the signal timeout Bell operating company (STOB) treatment. The system routes a call in an equal access environment over an AT trunk to STOB treatment. The system routes the call to STOB treatment because the AT did not receive equal access end office (EAEO) wink.

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

The system generates TRK121 when the system encounters a problem during outpulsing on an outgoing trunk.

OM group TRMTER (continued)

The system generates TRK138 when the system routes a call to a treatment after being call processing busy.

Register TERSYFL

System failure (SYFL) treatment (TERSYFL)

The DMS-100 local, international, DMS-200 toll, DMS-100/200 local toll, and DMS-MTX offices use register TERSYFL. Register TERSYFL counts calls that the system routes to SYFL treatment. The system routes the call to SYFL treatment when the system must abort a call because of a failure of the switching unit. A failure of the switching unit occurs for one of the following reasons:

- call failure or integrity loss from port 1
- miscellaneous messages from port 2
- software failure or error condition
- line-to-line, line-to-trunk, or trunk-to-line error takedown
- miscellaneous failures during overlap outpulsing
- miscellaneous error returns during call set-up
- the line module (LM) of the called line is busy or under test
- automatic number identification (ANI) test failure caused by data error
- ANI failure on local call detail recording (CDR) call
- data error
- failure in line number control processor
- integrity loss while receiving digits
- ring failure

The system also routes a call on an incoming or two-way CAMA trunk with Bell operating company format to SYFL treatment. The system routes a call to treatment if the start signal does not match the signal in field SDATA in table TRKGRP.

For DMS-300 gateway offices, register TERSYFL counts calls that the system routes to the system failure treatment.

The system routes a call incoming on a private line, an R1 signaling trunk, or an international 101 test line to the SYFL treatment. The system routes a call to treatment SYFL for one of the following reasons:

- the system aborts the call during the routing procedure
- the system aborts the call during translation verification
- during screening, the call accesses table DCACCTL and the system does not find the data in the table to be correct

Register TERSYFL release history

Register TERSYFL was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

The system generates TRK138 when the system routes a call to a treatment after being call processing busy.

OM group TRMTFR

OM description

Feature-related treatment

The OM group TRMTFR counts calls that the system routes to a treatment that is a normal progression of a call.

The OM group TRMTFT contains one register for each call treatment. The registers are TFRnnnn, where nnnn is the external treatment abbreviation. The register increases when the system routes a call to that treatment.

Release history

The OM group TRMTFR was introduced before BCS20.

GL04

DMS-100G was added to register description for registers TFRBUSY, TFRCFOV, and TFRCONF. Treatment added for DMS-100G.

BCS36

Effectivity for DMS-100 international switches was introduced in BCS36.

BCS30

Register TFRICNF was introduced in BCS30.

BCS29

Register TTFRSCRJ was introduced in BCS29.

BCS28

Registers TFRSORE, TFRCCAP, TFRACPR, TFRADPA, TFRCCDT, and TFRCBDN were introduced in BCS28.

Registers

The OM group TRMTFR registers appear on the MAP terminal as follows:

```
TFRBUSY     TFRMANL     TFRORMC     TFRCONF
TFRRRPA     TFRORAF     TFRTRRF     TFRORAC
TFRORMF     TFRSRRR                 TFRPRSC
TFRMHLD     TFRPGTO     TFRCCTO     TFRNINT
TFRNCIX     TFRNCII     TFRNCTF     TFRCFOV
TFRILRR     TFRSINT     TFRIWUC     TFRFRDR
TFRSORE     TFRCCAP     TFRACPR     TFRADPA
TFRCCDT     TFRCBDN     TFRSCRJ     TFRICNF
```

The following treatments apply to DMS-100 local switching offices: BUSY, MANL, ORMC, CONF, ORAF, TRRF, ORAC, ORMF, SRRR, CFOV, ILRR, IWUC, FRDR, and SCRJ.

The following treatments apply to DMS-100 international switching offices: BUSY, CONF, ILRR, and IWUC.

The following treatments apply to DMS-200 toll switching offices: BUSY, CFOV, and FRDR.

The following treatments apply to DMS-100/200 combined local and toll switching offices: BUSY, MANL, ORMC, CONF, ORAF, TRRF, ORAC, ORMF, SRRR, CFOV, ILRR, IWUC, and FRDR.

The following treatment applies to DMS-300 gateway switching offices: BUSY.

The following treatments apply to DMS-250 Tandem switching offices for common carriers: PRSC, CCTO, NINT, NCIX, NCII, NCTF, SINT, and ICNF.

The following treatments apply to DMS-MTX mobile telephone exchanges: BUSY, and PGTO.

The following treatments apply to DMS-100G switching offices: BUSY, CFOV, and CONF.

Group structure

The OM group TRMTFR provides one tuple for each office.

Table TMTCNTL defines all treatments.

The operating company uses subtables TMTCNTL.TREAT to define the tone(s), announcement(s), or states that the system returns to the originator of a call. The system returns the signals to the originator when the system encounters a specified treatment code during translation of a call. If a treatment code does not apply to an office type, the treatment is redundant. The treatment must be set to overflow or like tone.

Table OFRT lists the sequence of tones, announcements, or states that the system returns to the originator of a call. The signals return to the originator when the system encounters a specified treatment code during translation of a call.

OM group TRMTFR (continued)

Table CLLI defines the CLLI of each tone and announcement. The following tables define each treatment CLLI:

- Table TONES defines the CLLI for software-generated tones
- Table STN defines the CLLI for hardware-generated tones
- Table ANNS defines the CLLI for recorded announcements
- Table DRAMS defines the CLLI for digital recorded announcements

A call terminates in a specified treatment code because the operating company supplied translations that lead the call to a treatment. A call also terminates in a specified treatment code because the DMS detects conditions and prescribes a treatment. The DMS prescribes a treatment code without reference to the operating company translations. These conditions are not a normal set of conditions that prevent the completion of a call.

Occasionally, the treatment code is part of a normal call completion process. A normal call completion process includes, for example, an announcement to the originator before the call is complete.

When the DMS switch translates a call, it determines if the call must terminate to a specified treatment code. If the call must terminate, the DMS accesses subtable TMTCNTL.TREAT. The DMS switch accesses the subtables to determine what tone, announcement, or state returns to the originator. The DMS also accesses the subtables to determine what route in table OFRT lists the sequence of signals that return to the originator.

Key field:
There is no key field.

Info field:
There is no info field.

Associated OM groups

The OM group TRMTCM counts calls that the system routes to a treatment as a result of a customer action. The treatment does not relate to authorization.

The OM group TRMTCU counts calls that the system routes to a treatment. The treatment notifies the subscriber that an action is not appropriate for reasons of authorization.

The OM group TRMTCU2 is an extension of OM group TRMTCU and counts the same type of calls.

The OM group TRMTER counts calls that the system routes to a treatment. The system routes the calls because of a failure caused by a switching equipment failure.

The OM group TRMTRS counts calls that the system routes to a treatment. The system routes the calls because of a failure caused by a lack of software or hardware resources.

Associated functional groups

The following functional group associate with the OM group TRMTFR:

- DMS-100 local
- DMS-100/200 combined local and toll
- DMS-300 International Gateway for North America
- DMS-250 tandem switching office for common carriers
- DMS-MTX mobile telephone exchange

Associated functionality codes

The associated functionality codes for the OM group TRMTFR appear in the following table.

Functionality	Code
Common Basic	NTX001AA
DMS-250 three Way Calling on Foncard	NTXG43AA

Register TFRACPR

Authcode prompt (ACPR) treatment (TFRACPR)

Register TFRACPR counts calls that the system routes to treatment ACPR.

Register TFRACPR release history

Register TFRACPR was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TRMTFR (continued)

Register TFRADPA

Address digits prompt announcement (ADPA) treatment (TFRADPA)

Register TFRADPA counts calls that the system routes to treatment ADPA.

Register TFRADPA release history

Register TFRADPA was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRBUSY

Busy line (BUSY) treatment (TFRBUSY)

Register TFRBUSY counts calls for DMS-100 local, DMS-100G, and International toll offices that the system routes to the treatment BUSY. Register TFRBUSY also counts calls for DMS-200, and DMS-100/200 local toll offices. The calls go to treatment BUSY for one of the following reasons:

- A line or trunk dialed a directory number (DN) that is call processing busy and Call Waiting is not activated.
- A line without the intercom (INT) option, assigned in table LENLINES, dials its own DN.
- The system seizes the called line for testing. The called line is out of service and the system does not assign the plug-up (PLP) option. Test equipment can access busy lines except when the busy line has the no double connection (NDC) option. Table LENLINES or table IBNLINES contains the NDC option.

Register TFRBUSY counts calls, for DMS-300 gateway offices, that the system routes to treatment BUSY. The system routes calls that are incoming on a private line, an R1 signaling trunk, or an international 101 test line. The system also routes calls that are outgoing on a no. 6 signaling trunk if the call terminates on a line that is:

- call processing busy
- damaged, or
- out of service

Register TFRBUSY counts calls, for DMS-MTX offices, that the system routes to treatment. The system routes the calls to BUSY if:

- a mobile station dials its own DN
- a mobile station or trunk dials a DN that is call processing busy

Register TFRBUSY release history

Register TFRBUSY was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TFRCBDN

Call back destination number (CBDN) treatment (TFRCBDN)

Register TFRCBDN counts push-button international subscriber-dialed calls that the system routes to an announcement that requests a destination number.

Register TFRCBDN release history

Register TFRCBDN was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRCCAP

Credit card announcement prompt (CCAP) treatment (TFRCCAP)

Register TFRCCAP counts calls that the system routes to treatment CCAP.

Register TFRCCAP release history

Register TFRCCAP was introduced in BCS28.

OM group TRMTFR (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRCCDT

Credit card dial tone (CCDT) treatment (TFRCCDT)

Register TFRCCDT counts calls that the system routes to treatment CCDT.

Register TFRCCDT release history

Register TFRCCDT was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRCCTO

Calling card timeout (CCTO) treatment (TFRCCTO)

Register TFRCCTO counts calls, for DMS-250 tandem offices, that the system routes to treatment CCTO. The calls go to treatment because the subscriber did not enter a travel card number (TCN) in the timeout period.

The office parameter MCCS_CALLING_CARD_TIMEOUT in table OFCVAR determines the timeout period (1 to 10 s).

The system routes a call to an announcement. If the caller does not dial any digits after this announcement, the system routes the call to partial dial timeout (PDIL) treatment.

Register TFRCCTO release history

Register TFRCCTO was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes the call to a treatment after being call processing busy.

Register TFRCFOV

Call forwarding overflow (CFOV) treatment (TFRCFOV)

Register TFRCFOV counts calls, for DMS-100 local, DMS-100G, and DMS-100/200 local toll offices, that the system routes to treatment CFOV. The system routes a call to treatment if the system cannot forward the call through a POTS call forwarding base station. The call cannot forward if the number of calls exceeds the maximum simultaneous forwarding limit of the base station.

Register TFRCFOV release history

Register TFRCFOV was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRCONF

Confirmation tone (CONF) treatment (TFRCONF)

Register TFRCONF counts calls, for DMS-100 local, DMS-100G, and DMS-100/200 local/toll offices, that the system routes to treatment CONF. The system routes the calls to CONF when a caller accesses a custom calling feature.

Register TFRCONF release history

Register TFRCONF was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TFRFRDR

Feature reorder (FRDR) treatment (TFRFRDR)

For DMS-100 local, and DMS-100/200 local toll offices with the IBN message service feature, TFRFRDR counts calls that are routed to treatment FRDR because a voice message exchange (VMX) failure has been detected during activation or deactivation of a Message Waiting indication.

OM group TRMTFR (continued)

Register TFRFRDR release history

Register TFRFRDR was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRICNF

Invalid conference code (ICNF) treatment (TFRICNF)

Register TFRICNF counts three-way calls, for DMS-250 offices, that the system routes to treatment ICN. The system routes the calls to ICN because the controller of the three-way conference call dials an invalid conference feature code.

Register TFRICNF release history

Register TFRICNF was introduced in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRILRR

International line restriction (ILRR) treatment (TFRILRR)

For DSM-100 local, international, and DMS-100/200 local toll international end offices, TFRILRR counts calls that are routed to the treatment ILRR.

A call originating in an international end office with the International Line Restriction feature is routed to treatment ILRR when an attempt is made to originated a call that is restricted by feature NC0473 (International Line Restrictions for DMS-100).

Register TFRILRR release history

Register TFRILRR was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRIWUC

International wake-up call (IWUC) treatment (TFRIWUC)

For DMS-100 local, International and DMS-100/200 local toll international end offices, TFRIWUC counts calls that are routed to treatment IWUC.

The system routes a call that originates in an international end office with the International Wake-up Call feature to the trunk. The trunk uses the wake-up announcement during the wake-up process.

If a party answers a wake-up call, the line of the subscriber receives treatment IWUC.

Register TFRIWUC release history

Register TFRIWUC was introduced in BCS24.

Associated registers

There are no associated registers.

Associated logs

The system generates FTR138 when a line, trunk, or attendant console receives a treatment. The components receive treatment while the components use, initiate, or try to initiate a feature.

Register TFRMANL

Manual line (MANL) treatment (TFRMANL)

Register TFRMANL counts calls, for DMS-100 local and DMS-100/200 local toll offices, that the system routes to treatment MANL.

The system routes a call that originates on a line with the originating manual service (MAN) option to treatment MANL. Table LENLINES contains the MAN option. The system routes the call to MAN when the line attempts to originate a call.

Register TFRMANL release history

Register TFRMANL was introduced before BCS20. (TFRMANL)

Associated registers

There are no associated registers.

OM group TRMTFR (continued)

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TFRMHLD

Music on hold (MHLD) treatment (TFRMHLD)

Register TFRMHLD is no longer used. The audio interlude table (AUDIO) handles the Meridian Digital Centrex (MDC) treatments.

Register TFRMHLD release history

Register TFRMHLD was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRNCII

Network communication system invalid identification code (NCII) treatment (TFRNCII)

Register TFRNCII counts calls for DMS-250 tandem offices that the system routes to treatment NCII. The system routes the calls to NCII because the action code is 7 (invalid ID code). The network communication system (NCS) sends a response message that contains the action code.

Register TFRNCII release history

Register TFRNCII was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TFRNCIX

Network communication system incoming exclusion (NCIX) treatment (TFRNCIX)

Register TRFNCIX counts calls for DMS-250 tandem offices that the system routes to treatment NCIX. The system routes the calls to NCIX because the action code is 6 (incoming exclusion). The network communciation system (NCS) sends a response message that contains the action code.

Register TFRNCIX release history

Register TFRNCIX was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TFRNCTF

Network communication system translation failure (NCTF) treatment (TFRNCTF)

Register TFRNCTF counts calls for DMS-250 tandem offices that the system routes to network communication system translation failure (NCTF) treatment. The system routes the calls to TFRNCTF because the network communication system (NCS) sends one of the following action codes:

- 9 misdialed number
- 12 supplementary code required
- 13 outgoing trunk not found
- 14 automatic number identification not found
- 15 NPA_NXX not found
- 16 pilot number not found
- 17 associated partition not found
- 18 ADF format error
- 19 switch ID not found

Register TFRNCTF release history

Register TFRNCTF was introduced in BCS20.

Associated registers

There are no associated registers.

OM group TRMTFR (continued)

Associated logs

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TFRNINT

Changed number intercept (NINT) treatment (TFRNINT)

Register TFRNINT counts calls for DMS-250 tandem offices that the system routes to treatment NINT. The system routes the calls to NINT because the called number changed.

Register TFRNINT release history

Register TFRNINT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TFRORAC

Originating revertive action for two-party lines with coded ringing (ORAC) treatment (TFRORAC)

Register TFRORAC counts calls for DMS-100 local and DMS-100/200 local toll offices that the system routes to treatment ORAC.

The system routes a call that originates on a two-party line with coded ringing to treatment ORAC. The system routes a call to ORAC when the line attempts to terminate to a party on the same line.

Register TFRORAC release history

Register TFRORAC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TFRORAF

Originating revertive action for two-party lines with frequency ringing (ORAF) treatment (TFRORAF)

Register TFRORAF counts calls for DMS-100 local and DMS-100/200 local/toll offices that the system routes to treatment ORAF.

The system routes a call that originates on a two-party line with frequency ringing to treatment ORAF. The system routes a call to ORAF when the line attempts to terminate to a party on the same line.

Register TFRORAF release history

Register TFRORAF was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TFRORMC

Originating revertive action for multiparty lines with coded ringing (ORMC) treatment (TFRORMC)

Register TFRORMC counts calls for DMS-100 local and DMS-100/200 local toll offices that the system routes to treatment ORMC.

The system routes a call that originates on a multiparty line with coded ringing to treatment ORMC. The system routes a call to ORMC when the line attempts to terminate to a party on the same line.

Register TFRORMC release history

Register TFRORMC was introduced before BCS20.

Associated registers

There are no associated registers.

OM group TRMTFR (continued)

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TFRORMF

Originating revertive action for multiparty lines with frequency ringing (ORMF) treatment (TFRORMF)

Register TFRORMF counts calls for DMS-100 local and DMS-100/200 local toll offices that the system routes to treatment ORMF.

The system routes a call that originates on a multiparty line with frequency ringing to ORMF treatment. The system routes a call to ORMF when the line attempts to terminate to a party on the same line.

Register TFRORMF release history

Register TFRORMF was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TFRPGTO

Mobile page timeout (PGTO) treatment (TFRPGTO)

Register TFRPGTO counts calls for DMS-MTX offices that the system routes to treatment PGTO when a page timeout occurs.

Register TFRPGTO release history

Register TFRPGTO was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TFRPRSC

Priority screen fail (PRSC) treatment (TFRPRSC)

Register TFRPRSC counts calls for DMS-250 tandem offices that the system routes to treatment PRSC.

The system routes a call that originates on a trunk to treatment PRSC. The system routes a call to PRSC when authorization code priority screening is in effect in the office. The system routes a call to PRSC when the authorization code priority of the subscriber is lower than the current office priority.

Register TFRPRSC release history

Register TFRPRSC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TFRRRPA

Revertive ring prefix announcement (RRPA) treatment (TFRRPA)

Register TFRRRPA is not active.

Register TFRRRPA release history

Register TFRRRPA was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRSINT

Service interception (SINT) treatment (TFRSINT)

Register TFRSINT counts calls that the subscriber does not dial correctly, that go to treatment SINT. Register TFRSINT counts calls for DMS-250 tandem offices. Datafill in the universal translation tables route calls to SINT.

OM group TRMTFR (continued)

The datafill routes the calls to a TOPS position. The service interception (SVI) facility (in the TOPS position) handles the calls.

Register TFRSINT release history

Register TFRSINT was introduced in BCS24.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRSORE

Station origination restriction error (SORE) treatment (TFRSORE)

Register TFRSORE counts calls that the system routes to the treatment SORE. The system routes the calls to SORE because they are prohibited on an Integrated Business Network (IBN) line.

Register TFRSORE release history

Register TFRSORE was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRSRRR

Single-party revertive ringing (SRRR) treatment (TFRSRRR)

Register TFRSRRR counts calls for DMS-100 local and DMS-100/200 local toll that the system routes to treatment SRRR.

The system routes a call to treatment if a subscriber dials their own directory number to ring an extension telephone. The system routes the call if the line has the intercom (INT) option. Table LENLINES contains the INT option.

Register TFRSRRR release history

Register TFRSRRR was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TFRTRRF

Terminating revertive action for coded ringing (TRRF) treatment (TFRTRRF)

Register TFRTRRF counts calls for DMS-100 local and DMS-100/200 local/toll offices that the system routes to treatment TRRF.

The system routes the called party to treatment TRRF when both calling and called parties are multiparty lines with frequency ringing. Both parties must be on the same line. The system routes the called party to TRRF when it goes off-hook.

Register TFRTRRF release history

Register TFRTRRF was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TTFRSCRJ

Selective call rejection (SCRJ) treatment (TTFRSCRJ)

Register TTFRSCRJ counts calls for DMS-100 local offices that receive treatment SCRJ. The call receives SCRJ because the Selective Call Rejection feature screened and rejected the call.

Register TTFRSCRJ release history

Register TTFRSCRJ was introduced in BCS29.

Associated registers

Register SCRJ_SCRJSRJT counts calls that the Selective Call Rejection screens and rejects.

SCRJ_SCRJSRJT = TRMTFR_TTFRSCRJ

Problems can occur while routing calls to the announcement. Routing problems occur if the number of calls that the SCRJ rejects is not equal to the

OM group TRMTFR (end)

number of calls that receive treatment SCRJ. A routing problem can occur if too few announcement circuits are available for treatment SCRJ.

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

OM group TRMTFR2

OM description

Feature-related treatment extension (TRMTFR2)

Register TRMTFR2 is a continuation of OM group TRMTFR. Register TRMTFR2 counts calls that the system routes to a treatment. The treatment must be a normal progression of a call.

Register TRMTFR2 contains one register for each call treatment. The registers are TFRnnnn, where nnnn is the external treatment abbreviation. The register increases when a call goes to treatment.

Release history

The OM group TRMTFR2 was introduced in BCS30.

NA009

Register TFRACRJ is pegged for BRI lines.

NA002

Registers TFRLDAD and TFRLDAA were introduced in NA002.

CCM02

Register TFRORBT was introduced in CCMO2.

BCS36

Registers TFRINRF, TFRRTTE, TFRAIND, TFRAINF, and TFRPRTO were introduced in BCS36.

BCS35

Register TFRMBIA was introduced in BCS35.

BCS34

Registers TFRTRGB, TFRDSCN, TFRRFCS, TFRRFCD, and TFRRFCE were introduced in BCS34.

BCS33

Registers TFRIIEC, TFRWUCR, and TFRMWKP were introduced in BCS33.

BCS32

Registers TFRNVIP, TFRACRJ, TFRFCNI, TRFCDAS, TFRCDAF, TFRCDDS, and TFRCDDF were introduced in BCS32.

OM group TRMTFR2 (continued)

BCS31

Registers TFRNCS0 and TFRNCS1 were introduced in BCS31.

Registers

The OM group TRMTFR2 registers appear on the MAP terminal as follows:

```
TFRLECV     TFRSCA      TFRNCS0     TFRNCS1
TFRNVIP     TFRACRJ     TFRFCNI     TFRCDAS
TFRCDAF     TFRCDDS     TFRCDDF     TFRIIEC
TFRWUCR     TFRMWKP     TFRRFCS     TFRRFCD
TFRRFCE     TFRTRGB     TFRDSCN     TFRMBIA
TFRAIND     TFRAINF     TFRINRF     TFRRTTE
TFRPRTO     TFRPAGE     TFRCFWD     TFRLDAA
TFRLDAD     TFRORBT
```

Treatment register TFRSCA applies to DMS-100 local switching offices.

The following treatment registers apply to DMS-250 tandem switching offices: TFRLECV, TFRNCS0, and TFRNCS1.

Treatment register TFRTRGB is only active in DMS-250 Sprint offices.

Treatment register TFRMBIA applies to DMS-MTX mobile telephone exchanges.

Group structure

The OM group TRMTFR2 provides one tuple for each office.

Key field:
There is no key field.

Info field:
There is no info field.

Table TMTCNTL defines all treatments.

The operating company uses subtable TMTCNTL.TREAT to define tones, announcements or states. These tones, announcements or states return to the originator of a call when a specified treatment code appears during the translation of the call. If a treatment code does not apply to an office type, the treatment is redundant. The treatment must be set to overflow or a like tone.

Table OFRT lists a sequence of tones, announcements, or states. These tones, announcements, or states return to the originator of a call when a specified treatment code appears during the translation of the call.

Table CLLI defines the common language location identifier (CLLI) of each tone and announcement. One of the following tables defines each treatment CLLI.

- Table TONES defines the CLLI for software-generated tones.
- Table STN defines the CLLI for hardware-generated tones.
- Table ANNS defines the CLLI for recorded announcements.
- Table DRAMS defines the CLLI for digital recorded announcements.

The tables do not include definitions for fixed treatment CLLIs, idle (IDLE), lockout (LKOUT), and cutoff on permanent signal and partial dial (COPP).

A call may terminate to a specified treatment code for one of the following reasons:

- The operating company supplies translations that lead the call to a treatment.
- The DMS switch detects conditions that prevent completion of the call. The switch prescribes a treatment code without reference to the operating company translations.

Sometimes the treatment code is part of a normal call completion process. This process includes, for example, an announcement to the originator before the call completes.

When the DMS switch determines that a call must terminate to a specified treatment code, it accesses subtable TMTCNTL.TREAT. The subtable determines what tone, announcement, or state returns to the originator. The subtable also determines what route in table OFRT lists the sequence of tones, announcements, or states.

Associated OM groups

Group TRMTFR counts calls that the system routes to a treatment that is a normal sequence of a call.

Group TRMTCM counts calls that the system routes to a treatment as a result of a customer action. The treatment is not related to authorization.

OM group TRMTFR2 (continued)

Group TRMTCU counts calls that the system routes to a treatment. The treatment notifies the subscriber that an action is not appropriate for reasons of authorization.

Group TRMTCU2 is an extension of TRMTCU and counts the same type of calls.

Register TRMTER counts calls that the system routes to a treatment because of a switching equipment failure.

Register TRMTRS counts calls that the system routes to a treatment because not enough software or hardware resources are available.

Associated functional groups

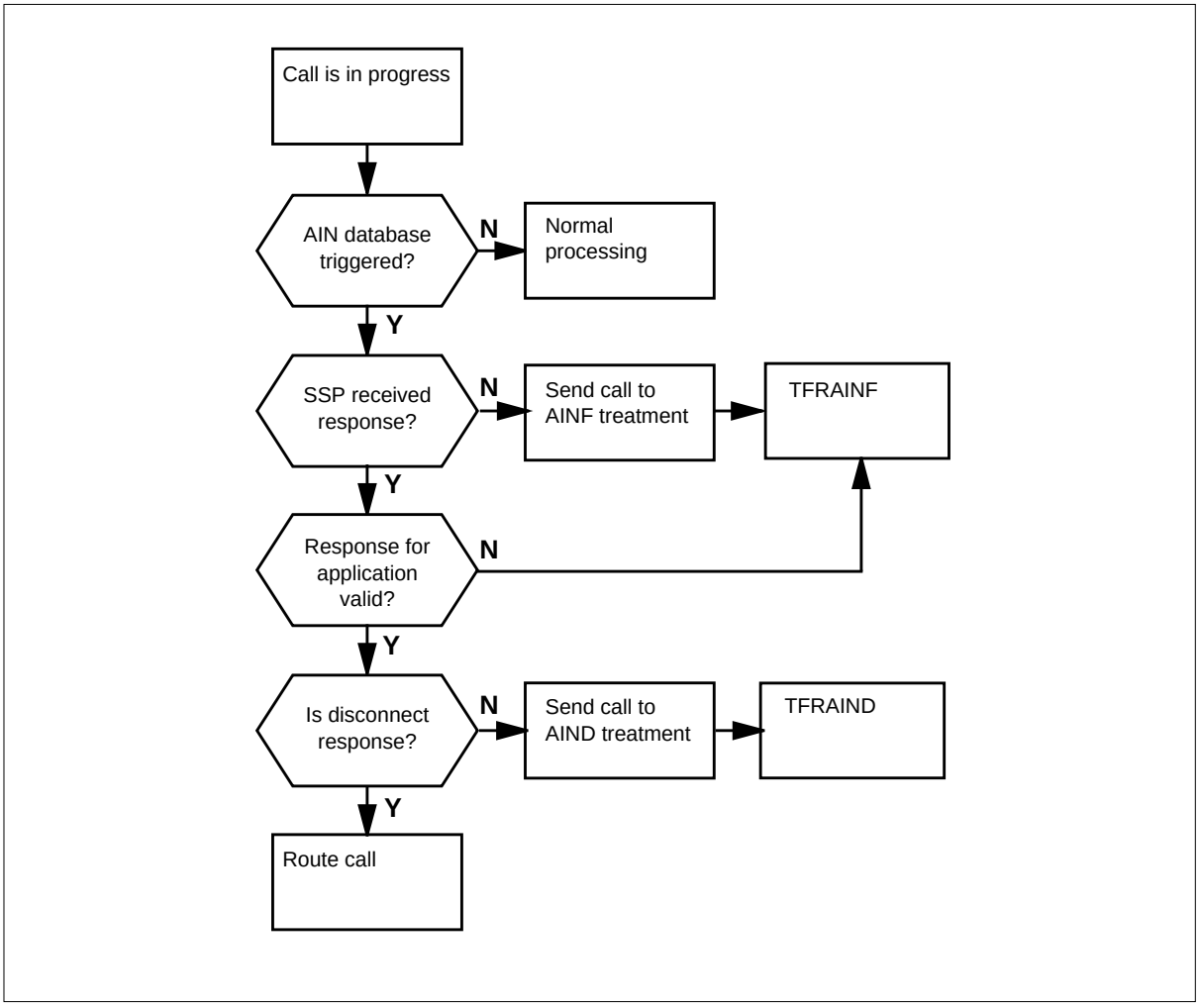
There are no associated functional groups.

Associated functionality codes

The associated functionality codes for OM group TRMTFR2 appear in the following table.

Functionality	Code
DMS-250 Virtual Private Network (VNET)	NTX353CA
CLASS Selective Call Acceptance	NTXA45AA
DMS-250 LEC Calling Card	NTXG47AA
DMS-250 N00 Call Redirection	NTXL86AA
AIN Ro .1 SSP	NTXQ43AA

OM group TRMTFR2 registers



Register TFRACRJ

Terminating treatment: feature-related anonymous caller rejection (TFRACRJ)

Register TFRACRJ counts the number of rejected calls that the system routes to anonymous caller rejection (ACRJ) treatment.

Register TFRACRJ release history

Register TFRACRJ was introduced in BCS32.

NA009

TFRACRJ is pegged for BRI lines.

OM group TRMTFR2 (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRAIND

Terminating treatment: feature-related advanced intelligent network (AIN) disconnect call treatment (TFRAIND)

Register TFRAIND increases when the service control point requests that the service switching point disconnect an AIN call. Register TFRAIND counts the number of rejected calls that the system routes to AIN disconnect call treatment.

Register TFRAIND release history

Register TFRAIND was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRAINF

Terminating treatment: feature-related advanced intelligent network (AIN) final treatment (TFRAINF)

Register TFRAINF counts the number of rejected calls that the system routes to final AIN treatment. Register TFRAINF increases when an AIN call fails because of a fatal call-related error.

Register TFRAINF release history

Register TFRAINF was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRCDAF

Treatment: call delivery activation failed (TFRCDAF)

Register TFRCDAF records the number of times the call delivery activation (CDA) treatment fails.

Register TFRCDAF release history

Register TFRCDAF was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRCDAS

Treatment: call delivery activation successful (TFRCDAS)

Register TFRCDAS records the number of times the call delivery activation (CDA) treatment is successful.

Register TFRCDAS release history

Register TFRCDAS was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRCDDF

Treatment: call delivery deactivation failed (TFRCDDF)

OM group TRMTFR2 (continued)

Register TFRCDDF records the number of times the call delivery deactivation treatment fails.

Register TFRCDDF release history

Register TFRCDDF was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRCDDS

Treatment: call delivery deactivation successful (TFRCDDS)

Register TFRCDDS records the number of times the call delivery deactivation is successful.

Register TFRCDDS release history

Register TFRCDDS was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRCFWD

Treatment: call forwarding a mobile call (TFRCFWD)

Register TFRCFWD is not active.

Register TFRCFWD release history

Register TFRCFWD was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRDSCN

Treatment: disconnect (TFRDSCN)

Register TFRDSCN records the number of times a call goes to disconnect treatment. A subscriber can have a feature Spontaneous Call Waiting Identification With Disposition (DSCWID).This treatment provides an announcement to the waiting party when a subscriber with DSCWID chooses the busy disposition for the waiting call. After the announcement, the call disconnects.

Register TFRDSCN release history

Register TFRDSCN was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRFCNI

Treatment: facility not implemented (TFRFCNI)

Register TFRFCNI increases when a call goes to the facility-not-implemented (FCNI) treatment.

TFRFCNI release history

Register TFRFCNI was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TRMTFR2 (continued)

Extension registers

There are no extension registers.

Register TFRIIEC

Treatment: feature related, invalid information element component (TFRIIEC)

Register TFRIIEC counts the number of times a call goes to an invalid information element component (IIEC) treatment.

Register TFRIIEC release history

Register TFRIIEC was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRINRF

Treatment: feature related, invalid redirection feature (TFRINRF)

Register TFRINRF increases when treatment INRF is set. Register TFRINRF counts the number of times a caller dials a redirection feature code that is not correct.

Register TFRINRF release history

Register TFRINRF was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

The system generates FTR 138 when a caller dials an invalid redirection feature code and INRF treatment is set.

Extension registers

There are no extension registers.

Register TFRLECV

Treatment: local exchange carrier calling card validation (TFRLECV)

Register TFRLECV counts calls that go to the local exchange carrier calling card validation (LECV) treatment. Treatment LECV indicates that the calling card number is valid and the call is ready for the system to route.

For local exchange carrier calling card calls, the system accesses table TMTCNTL when the system applies treatment LECV. To receive a confirmation announcement, treatment LECV must be datafilled in table MCCSANNS.

Register TFRLECV release history

Register TFRLECV was introduced in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRMBIA

Treatment: mobile inactive (TFRMBIA)

Register TFRMBIA counts the number of times a call goes to the Mobile inactive (MBIA) treatment. This event occurs when an incoming call attempts to terminate to an inactive mobile that does not have Call Forwarding Don't Answer (CFD).

If an inactive mobile without CFD has line option Page Always (PGA), the mobile is paged and no MBIA treatment is given.

Register TFRMBIA release history

Register TFRMBIA was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group TRMTFR2 (continued)

Register TFRMWKP

Treatment: mobile weak power (TFRMWKP)

Register TFRMWKP counts the number of times a call goes to Mobile weak power (MWKP) treatment.

Register TFRMWKP release history

Register TFRMWKP was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRNCS0

Treatment: network control system 0 (TFRNCSO)

Register TFRNCS0 is not active.

Register TFRNCS0 release history

Register TFNCS0 was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRNCS1

Treatment: network control system 1

Register TFRNCS1 is not active.

Register TFRNCS1 release history

Register TFRNCS1 was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRNVIP

Treatment: not very important person (TFRNVIP)

Register TFRNVIP counts the number of calls that the system routes to not very important person (NVIP) treatment. This action occurs on all calls to non-VIP subscribers in local exchange codes with enabled VIP screening.

Register TFRNVIP release history

Register TFRNVIP was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

The system generates logs TRK138 and LINE138.

Extension registers

There are no extension registers.

Register TFRORBT

Treatment: feature related, Call Overflow for E008 (TFRORBT)

Register TFRORBT increases when an E008 call with the Call Overflow feature cannot complete. The call exhausts all routes in the Call Overflow destinations list. Register TFRORBT measures call failures caused by a call feature. The TFRORBT does not include treatments used to deny access to features for authorization reasons.

Register TFRORBT release history

Register TFRORBT was introduced in CCM02.

Associated registers

There are no associated registers.

OM group TRMTFR2 (continued)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRPAGE

Treatment: paging a mobile call (TFRPAGE)

Register TFRPAGE is not active.

Register TFRPAGE release history

Register TFRPAGE was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRPRTO

Treatment: profile timeout (TFRPRTO)

Register TFRPRTO counts the number of timeouts that occur while the system waits for:

- an IS41 qualification request response or
- an IS41 service profile request response

Register TFRPRTO release history

Register TFRPRTO was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRRFCD

Treatment: remote feature control denied (TFRRFCD)

Register TFRRFCD counts the number of times the system denies remote feature control.

Register TFRRFCD release history

Register TFRRFCD was introduced in BCS34.

Associated registers

Registers TFRRFCE and TFRRFCS are associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRRFCE

Treatment: remote feature control error (TFRRFCE)

Register TFRRFCE counts the number of errors for remote feature control.

Register TFRRFCE release history

Register TFRRFCE was introduced in BCS34.

Associated registers

Registers TFRRFCD and TFRRFCS are associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRRFCS

Treatment: remote feature control success (TFRRFCS)

Register TFRRFCS counts the number of times the remote feature control treatment is successful. Remote feature control operates from a remote site to control a feature in the home database. A single star (*) placed before the feature code controls a feature in the serving database. A double star (**) is placed before the feature code.

OM group TRMTFR2 (continued)

Register TFRRFCS release history

Register TFRRFCS was introduced in BCS34.

Associated registers

Registers TFRRFCE and TFRRFCD are associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRRTTE

Treatment: feature related, redirection tandem threshold exceeded RTTE (TFRRTTE)

Register TFRRTTE increases when treatment RTTE is set. The TFRRTTE counts the number of call redirections. This event occurs when the number of call redirections exceeds the maximum number of times allowed.

Register TFRRTTE release history

Register TFRRTTE was introduced in BCS34.

Associated registers

Registers TFRRFCE and TFRRFCD are associated registers.

Associated logs

The system generates FTR 138 when the system blocks call redirection. The system blocks call redirections when the number of redirections has exceeded the maximum allowed and RTTE treatment is set.

Extension registers

There are no extension registers.

Register TFRSCA

Treatment: selective call acceptance (TFRSCA)

Register TFRSCA counts calls rejected by SCA screening and that the system routes to selective call acceptance (SCA).

Register TFRSCA release history

Register TFRSCA was introduced in BCS30.

Associated registers

Register SCA_SCASRJT counts calls that the SCA feature rejects. The call goes to SCA treatment.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRTRGB

Treatment: trigger block (TFRTRGB)

Register TFRTRGB counts Sprint DMS-250 calls that attempt to use the distributed intelligent network architecture (DINA). Sprint DMS-250 calls attempt to use DINA when the datafill (field BLOCK_CALL) in tables TRIGNTRY and TRIGCUST requires blocked calls.

Register TFRTRGB release history

Register TFRTRGB was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRWUCR

Treatment: wake-up call (TFRWUCR)

Register TFRWUCR counts the number of successful wake-up call attempts that the system routes to the wake-up call reminder (WUCR) treatment. Tables CLLI, DRAMS, DRAMTRK, TMTCNTL, ANNS, ANNMEMS, and OFRT must be entered to define a wake-up call announcement.

Register TFRWUCR release history

Register TFRWUCR was introduced in BCS33.

Associated registers

There are no associated registers.

OM group TRMTFR2 (continued)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRLDAA

Treatment: long distance signal activation (TFRLDAA)

Register TFRLDAA increases when the system routes a call to LDAA treatment. The subscriber dials the LDS access code (*49 or 1149) to activate LDS functionality on the line.

The following conditions must exist before a a subscriber can dial the LDS activation access code and route to LDAA treatment:

- Office parameter LDS_ENABLED is set to Y.
- The line attribute index for the subscriber has option LDSV set to active.
- The line for the subscriber has option LDSO, or the office parameter LDS_AUTO_PROV_ENABLED is set to Y.
- Option LDSA is not present on the line for the subscriber.

Register TFRLDAA release history

Register TFRLDAA was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 when the operating company selects Y for the log option of treatment LDAA in table TMTCNTL.

Extension registers

There are no extension registers.

Register TFRLDAD

Treatment: long distance signal deactivation (TFRLDAD)

Register TFRLDAD increases when a call goes to LDAD treatment. The subscriber dials the LDS access code (*49 or 1149) to deactivate LDS functionality on the line.

The following conditions must exist before a a subscriber can gain access to dial the LDS access code and route to LDAD treatment:

- Office parameter LDS_ENABLED is set to Y.
- The line attribute index for the subscriber has option LDSV set to active.
- Option LDSO is present on the line for the subscriber, or the office parameter LDS_AUTO_PROV_ENABLED is set to Y.
- Option LDSA is not present on the line for the subscriber.
- Office image dumping is not in progress.

Register TFRLDAD release history

Register TFRLDAD was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 when the operating company selects Y for the log option of treatment LDAD in table TMTCNTL.

Extension registers

There are no extension registers.

OM group TRMTFR3

OM description

Feature-related treatment extension 3

OM group TRMTFR3 is a continuation of OM groups TRMTFR and TRMTFR2. OM group TRMTFR3 counts calls that are routed to a treatment as a normal progression of a call.

OM group TRMTFR3 contains one register for each call treatment. Spare registers have a prefix of FRSPR and a number. Used registers have a name that is an abbreviation of their function. Used registers are incremented when a call is routed to that treatment.

Release history

Registers TFRCMGA and TFRCMGD were added in NA010.

Register FRSPR15 was renamed to TFRB900 in CSP008.

Register FRSPR16 was renamed to TFRRMIA in CSP008.

Register FRSPR17 was renamed to TFRRMID in CSP008.

Register FRMISRTE was added in CSP007.

OM group TRMTFR3 was introduced in CSP004.

Registers

OM group TRMTFR3 contains registers that are in use and spare registers that are not yet used appear on the MAP display. Every in-use register in the TRMTFR3 group records the number of connections to the treatment that is associated with that register.

> ***Note:*** When a spare register is initially put to use, it retains the name shown in the display that follows. Upon release of the software that makes use of the register, the register name is changed to reflect its use.

The following OM group TRMTFR3 registers display on the MAP terminal:

```
> OMSHOW  TRMTFR3  ACTIVE

CLASS:  ACTIVE
START:1998/05/21 18:00:00 THU;STOP: 1998/05/21
18:13:32 THU;
SLOWSAMPLES:   9; FASTSAMPLES:  81;
     FRSPR1      FRRTEERR    TFRNDISC    TFRPSNF
     TFRINER     ISAEXIT     TFRPNUN     TFRUNPM
     FRMISRTE    TFRICSA     TFRICSD
     GSMLNPMC    TFRCBFC     TFRB900     TFRRMID
     TFRRMIA     TFROTAE     TFRPGAP     UCSLNPMR
     TFRCMGA     TFRCMGD     MULTAUTH    FRSPR24
     FRSPR25     FRSPR26     FRSPR27     FRSPR28
     FRSPR29     FRSPR30     FRSPR31     FRSPR32
       0           0           0           0
       0           0           0           0
       0           0           0           0
       0           0           0           0
       0           0           0           0
       0           0           0           0
       0           0           0           0
       0           0           0           0
```

Group structure

OM group TRMTFR3 provides one tuple for each office.

Key field:
None

Info field:
None

Number of tuples: 1

Table TMTCNTL defines all treatments.

The operating company uses subtable TMTCNTL.TREAT to define the tones, announcements, and states that are returned to the originator of a call when a specified treatment code is encountered during translation of the call.

Table OFRT lists the sequence of the tones, announcements, or states that are returned. If a treatment code is not applicable to an office type, the treatment is redundant and must be set to overflow or to a similar tone.

OM group TRMTFR3 (continued)

Table CLLI defines the common language location identifier (CLLI) of each tone and announcement. Each treatment CLLI, except for fixed treatment CLLIs, idle (IDLE), lockout (LKOUT), and cutoff on permanent signal and partial dial (COPP), is also defined in one of the following tables:

- TONES (defines the CLLI for software-generated tones)
- STN (defines the CLLI for hardware-generated tones)
- ANNS (defines the CLLI for recorded announcements)
- DRAMS (defines the CLLI for digital recorded announcements)

A call terminates to a specified treatment code for one of the following reasons:

- The operating company translations explicitly lead the call to a treatment.
- The DMS switch detects certain conditions that prevent completion of the call, so the switch determines a treatment code without reference to the operating company translations.

Sometimes the treatment code is part of a normal call completion process that includes, for example, an announcement to the originator before the call is completed.

When the DMS switch determines that a call must terminate to a specified treatment code, it accesses subtable TMTCNTL.OFFTREAT. Once accessed, it determines what tone, announcement, or state to return to the originator, or what route in table OFRT lists the sequence of tones, announcements, or states to return to the originator.

Associated OM groups

The following OM groups are associated with OM group TRMTFR3:

- TRMTCM/TRMTCM2 counts customer miscellaneous-related treatments.
- TRMTCU/TRMTCU2 counts customer unauthorized-related treatments.
- TRMTER counts equipment-related treatments.
- TRMTFR/TRMTFR2 counts feature-related treatments.
- TRMTPR counts protocol-related treatments.
- TRMTRS counts resource shortage-related treatments.

Associated functional groups

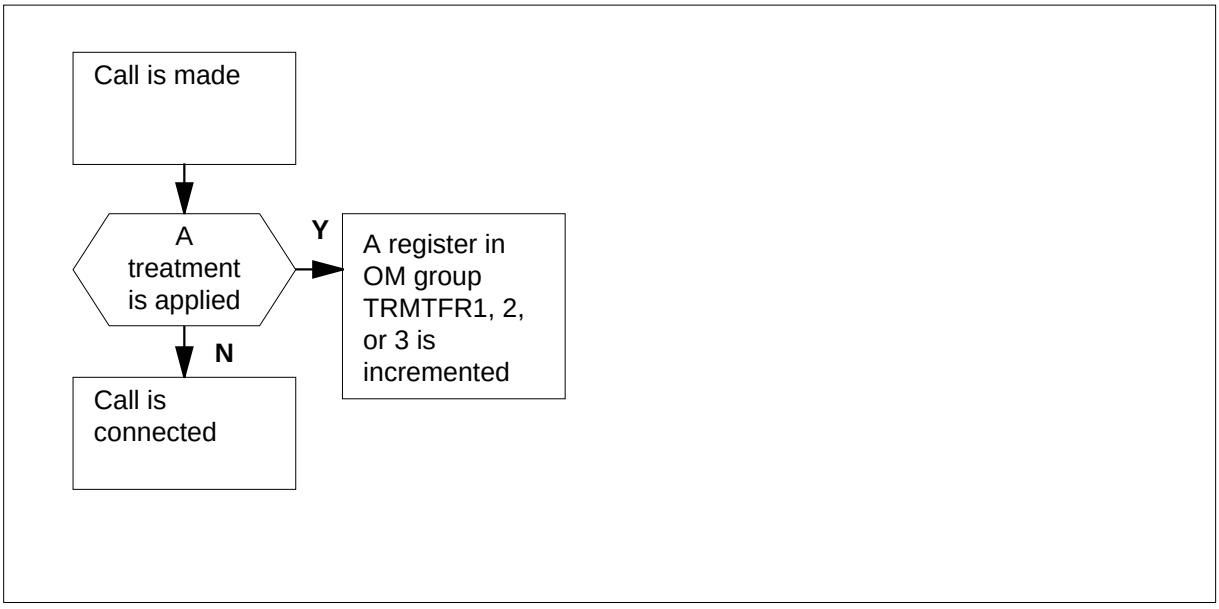
This OM group pertains to functional groups RES Advanced Custom Calling, RES00002 and RES Non-display Services, RES00005.

Associated functionality codes

The functionality codes associated with OM group TRMTFR3 are shown in the following table.

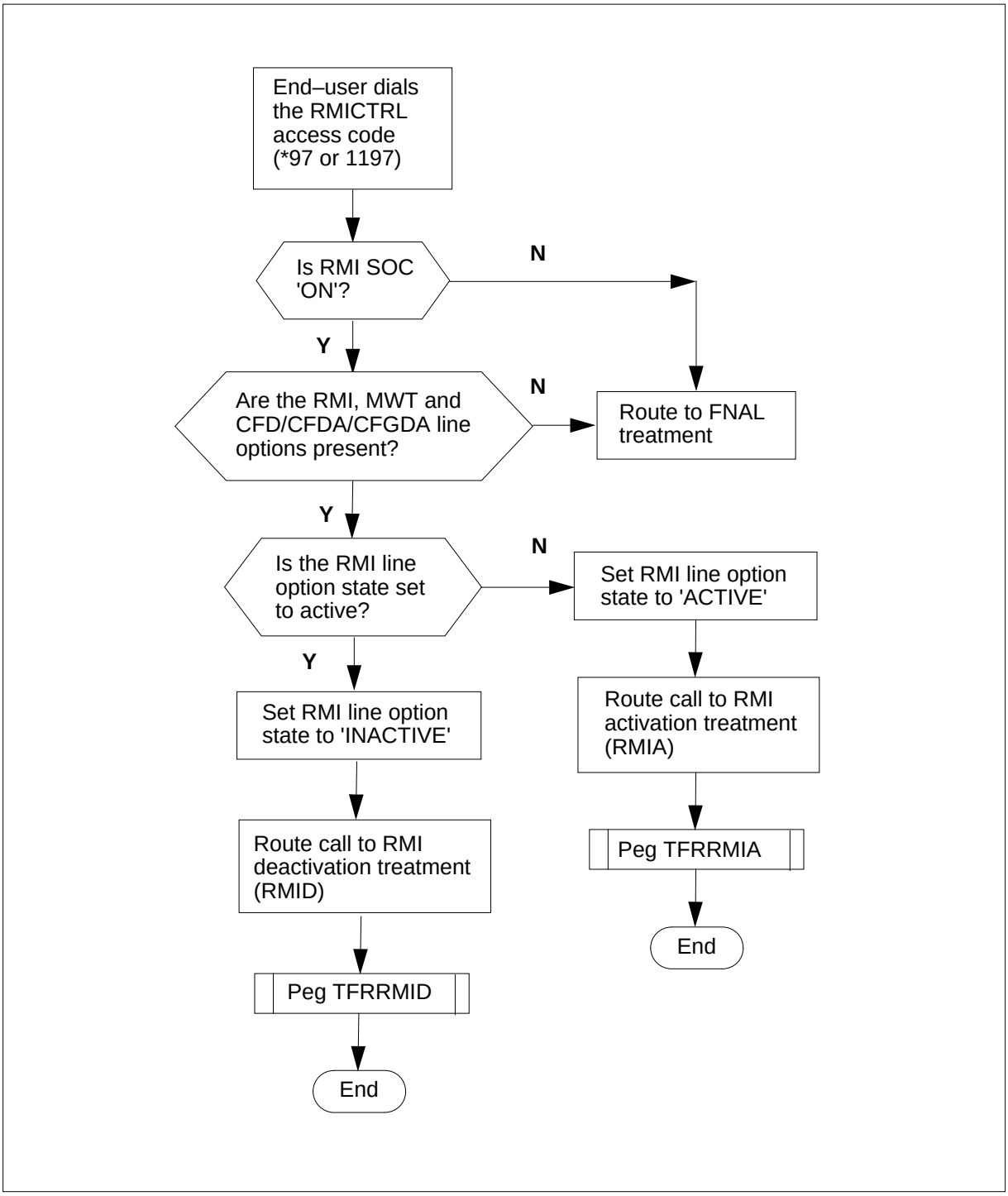
Functionality	Code
DMS-250 Virtual Private Network (VNET)	NTX353CA
CLASS Selective Call Acceptance	NTXA45AA
DMS-250 LEC Calling Card	NTXG47AA
DMS-250 N00 Call Redirection	NTXL86AA
AIN R 0 .1 SSP	NTXQ43AA
Access to Messaging	RES00077
Enhanced Busy Call Return	RES00076

OM group TRMTFR3 registers—Query Processing



OM group TRMTFR3 (continued)

OM group TRMTFR3 registers



Register FRRTEERR

Register Feature-Related Exchange Routing Error

This register counts the number of feature-related treatments that are applied that build and send a release (REL) message with a cause value of ``Exchange Routing Error."

Register FRRTEERR release history

Register FRRTEERR was assigned in CSP05.

Associated registers

None

Associated logs

None

Extension registers

None

Register TFRB900

Register Treatment Feature B900

This register counts the number of times the Blocked 900 treatment (B900) is offered to the user. The caller is routed to B900 treatment when the caller is screened out by the 900FP feature. The B900 treatment is datafilled by the operating company in table TMTCNTL. The B900 treatment can be a tone or an announcement.

Register TFRB900 release history

Register TFRB900 was renamed from register FRSPR15 in NA008.

Associated registers

None

Associated logs

A LINE138 or TRK138 log is generated when the TFRB900 OM is pegged if table TMTCNTL is properly datafilled.

Extension registers

None

Register TFRCMGA

Register Treatment Call Management Group Activation

OM group TRMTFR3 (continued)

This register counts the number of times the Call Management Group (CMG) end-user line routes to CMG activation (CMGA) treatment. In order to route this treatment, the end user must dial the CMG control (CMGRCTRL) or CMG activation (CMGRACT) access code. Also, the CMG simultaneous ringing functionality must pass from inactive to active.

Register TFRCMGA release history

Register TFRCMGA was assigned in NA010.

Associated registers

None

Associated logs

None

Extension registers

None

Register TFRCMGD

Register Treatment Call Management Group Deactivation

This register counts the number of times the CMG end-user line routes to CMG deactivation (CMGD) treatment. In order to route this treatment, the end user must dial the CMGRCTRL or CMG deactivation (CMGRDACT) access code. Also, the CMG simultaneous ringing functionality must pass from active to inactive.

Register TFRCMGD release history

Register TFRCMGD was assigned in NA010.

Associated registers

None

Associated logs

None

Extension registers

None

Register TFRICSD

Register Treatment Feature Related ICS Deactivation

This register counts the number of connections to the In Call Service Activation (ICSD) treatment - a treatment associated with the Sustained Deactivation capability (the ICSCTRL feature).

Note: The purpose of this treatment is to notify the user that the service offering has been deactivated on the line. Typically, this is accomplished by routing the call to a confirmation tone followed by call disconnection, or to an announcement followed by the normal dial tone. The operating company defines this treatment using table TMTCNTL.

Register TFRICSD release history

Register TFRICSD was assigned in NA007.

Associated registers

None

Associated logs

The ICSD treatment is associated with log LINE138. If the field LOG of tuple ICSD in subtable LNT.TREAT (table TMTCNTL) is set to Y, a LINE138 log is generated every time the ICSD treatment is activated.

Extension registers

None

Register TFRICSA

Register Treatment Feature Related ICS Activation

This register counts the number of connections to the In Call Service Activation (ICSA) treatment - a treatment associated with the Sustained Deactivation capability (the ICSCTRL feature).

Note: The purpose of this treatment is to notify the user that the service offering has been re-activated on the line. Typically, this is accomplished by routing the call to a confirmation tone followed by call disconnection, or to an announcement followed by the normal dial tone. The operating company defines this treatment using table TMTCNTL.

Register TFRICSA release history

Register TFRICSA was assigned in NA007.

Associated registers

None

OM group TRMTFR3 (continued)

Associated logs

The ICSA treatment is associated with log LINE138. If the field LOG of tuple ICSA is subtable LNT.TREAT (table TMTCNTL) is set to Y, a LINE138 log is generated every time the ICSA treatment is activated.

Extension registers

None

Register TFRNDISC

Register Treatment Disconnect

This register counts the number of originating calls that are routed to the normal disconnect treatment.

Register TFRNDISC release history

Register TFRNDISC was introduced in GSM06.

Associated registers

None

Associated logs

None

Extension registers

None

Register TFRPSNF

Register PSN Call Treatment

This register counts the number of programmable service node (PSN) call failures that resulted in a call treatment being applied.

Register TFRPSNF release history

Register TFRPSNF was introduced as FRSPARE4 IN CSP06.

Associated registers

None

Associated logs

TRKT214

Extension registers

None

Register TFRINER

Register IN (Intelligent Networking) error

This register counts the number of originating calls that are routed to an IN error treatment.

Register TFRINER release history

Register TFRINER was introduced in CSP05.

Associated registers

None

Associated logs

None

Extension registers

None

Register TFRRMIA

Treatment RMI (Remote Message Indicator) Activate

Register TFRRMIA is pegged each time the subscriber line routes to RMIA treatment. In order to route to this treatment, the subscriber line must dial the RMICTRL access code (*97/1197) and the RMI line option state must pass form active to inactive. The following conditions must exist before a subscriber is routed to RMIA treatment:

- RMI SOC state is set to ON
- RMI and MWT line options are assigned to the subscriber's line
- CFD or CFDA is assigned to the subscriber's line or the subscriber's line is a member of a hunt group and CFGDA is assigned on the pilot line
- RMI line option is set to active

Register TFRRMIA release history

Register TFRRMIA was introduced in NA008.

Associated registers

None

Associated logs

A LINE138 log can be generated if the operating company datafills the RMIA extended treatment to be logged.

OM group TRMTFR3 (continued)

Extension registers

None

Register TFRRMID

Treatment RMI (Remote Message Indicator) De-activate

Register TFRRMID is pegged each time the subscriber's line routes to RMID treatment. In order to route to this treatment, the subscriber line must dial the RMICTRL access code (*97/1197) and the RMI line option state must pass from active to inactive. The following conditions must exist before a subscriber is routed to RMID treatment:

- RMI SOC state is set to ON
- RMI and MWT line options are assigned to the subscriber line
- CFD or CFDA is assigned to the subscriber line or the subscriber line is a member of a hunt group and CFGDA is assigned to the pilot line
- RMI line option state is set to active.

Register TFRRMID release history

Register TFRRMID was introduced in NA008.

Associated registers

None

Associated logs

A LINE138 log is generated if the operating company datafills the RMID extended treatment to be logged.

Extension registers

None

Register ISAEXIT

Register In-Session Activation services exit

This register counts the number of originating agents that are routed to the ISAX treatment.

Note: The ISAX treatment is used only when more than one level of ISA announcements is datafilled. The treatment is applied to the originating agent when the ISA service is rejected by the caller in the second or higher level of ISA announcement.

Register ISAEXIT release history

Register ISAEXIT was introduced in CNA06.

Released under the old name FRSPARES6 in CNA05.

Associated registers

None

Associated logs

None

Extension registers

None

Register TFRUNPM

Register Unprogrammed mobile

This register counts the number of times that the “Unprogrammed_Mobile_treatment" is applied to a CDMA (Code Division Multiple Access) unprogrammed mobile.

Register TFRUNPM release history

Register TFRUNPM was introduced as FRSPARE8 in MTX05.

Associated registers

None

Associated logs

In MTX05 and MTX06, every UNPROGRAMMED_MOBILE treatment is accompanied by a CELL900 “possible SERVCHNG entry missing for 000000XXXX" log.

Extension registers

None

Register TFRPNUN

Register Private Networks are Unavailable

This register counts the number of times that the “Private_Networks_are Unavailable" treatment is applied to a CDMA unprogrammed mobile. Specifically, this means that the Virtual Private Network (VPN) cannot be accessed.

OM group TRMTFR3 (end)

Register TFRPNUN release history

Register TFRUNPM was introduced as FRSPARE9 in MTX04.

Associated registers

None

Associated logs

None

Extension registers

None

Register FRMISRTE

Register Misrouted call to ported DN treatment

This register counts the number of call attempts to ported DNs that terminate to an unallocated number treatment in the terminating switch.

Register FRMISRTE release history

Register FRMISRTE was introduced in CSP07.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TRMTPR

OM description

Protocol-related treatments (TRMTPR)

The OM group TRMTPR counts calls the system routes to a treatment because of protocol violations or ill-formed protocol messages.

Release history

The OM group TRMTPR was introduced in BCS33.

Registers

The OM group TRMTPR registers appear on the MAP terminal as follows:

```
TPRNOBC     TPRNORA     TPRPER1     TPRPER2
TPRPER3     TPRPER4     TPRPER5     TPRCER1
```

This OM group contains spare registers that are not used but are visible to the user. Later software releases will make use of these registers. The registers will be documented at that time. The following spare registers appear on the MAP terminal:

```
 PRSPR1      PRSPR2      PRSPR3      PRSPR4
 PRSPR5      PRSPR6      PRSPR7      PRSPR8
 PRSPR9     PRSPR10     PRSPR11     PRSPR12
PRSPR13     PRSPR14     PRSPR15     PRSPR16
PRSPR17     PRSPR18     PRSPR19     PRSPR20
PRSPR21     PRSPR22     PRSPR23     PRSPR24
```

When a spare register is first put to use, the register will retain the name that appears in the preceding MAP terminal. With the release of the next Northern Telecom software, the register name will change to reflect the use.

Group structure

The OM group TRMTPR provides one tuple for each office.

Key field:
There is no key field.

Info field:
There is no info field.

OM group TRMTPR (continued)

Associated OM groups

The OM group TRMTCM contains treatments that explain call conditions related to customer action but not related to authorization. The OM group TRMTCM does not include treatments that mark the development or completion of call features.

The OM group TRMTER contains treatments that handle failures that occur because of switching equipment failure. The OM group TRMTPR does not cover failures to allocate hardware or software resources that are not present.

The OM group TRMTFR and TRMTFR2 contain treatments that explain call conditions related to certain call features. The OM groups do not cover treatments that deny access to features for authorization reasons.

The OM group TRMTRS contains treatments that handle failures that occur because not enough hardware or software resources are present. The register does not include treatments that handle switching equipment failures.

The OM group TRMTCU and TRMTCU2 contain treatments that describe call failure conditions. The failure conditions result from a denial for a feature because of customer authorization.

Associated functional groups

There are no associated functional groups.

Associated functionality codes

The associated functionality codes for OM group TRMTPR appear in the following table.

Functionality	Code
Common Basic	NTX001AA

Register TPRCER1

CUG error 1 (TPRCER1)

Register TPRCER1 increases when the closed user group information for a call is not defined correctly.

Register TPRCER1 release history

Register TPRCER1 was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if a call that is call processing busy routes to a treatment.

The system generates TRK343 if an IBN7 message does not contain the transported Digital Private Network Signaling System (DPNSS) message.

Register TPRNOBC

No BC available (TPRNOBC)

Register TPRNOBC increases when the bearer capability (BC) is indicated, but no BC is included in the received setup message.

Register TPRNOBC release history

Register TPRNOBC was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if a call that is call processing busy routes to a treatment.

The system generates TRK343 if an IBN7 message does not contain the transported DPNSS message.

Register TPRNORA

No routing available (TPRNORA)

Register TPRNORA increases when the system expects the routing information, but none appears in the received setup message.

Register TPRNORA release history

Register TPRNORA was introduced in BCS33.

Associated registers

There are no associated registers.

OM group TRMTPR (continued)

Associated logs

The system generates TRK138 if a call that is call processing busy routes to a treatment.

The system generates TRK343 if an IBN7 message does not contain the DPNSS message.

Register TPRPER1

Protocol error 1 (TPRPER1)

Register TPRPER1 increases when the signaling capability of the requested call conflicts with the attributes of the signaling path chosen.

Register TPRPER1 release history

Register TPRPER1 was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if a call that is call processing busy routes to a treatment.

The system generates TRK343 if an IBN7 message does not contain the DPNSS message.

Register TPRPER2

Protocol error 2 (TPRPER2)

Register TPRPER2 increases when the signaling path the system chooses for the call cannot support the information transfer capability requested.

Register TPRPER2 release history

Register TPRPER2 was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if a call that is call processing busy routes to a treatment.

The system generates TRK343 if an IBN7 message does not contain the DPNSS message.

Register TPRPER3

Protocol error 3 (TPRPER3)

Register TPRPER3 increases when the system receives messages in a forward direction. This increase occurs when the control indicators for the protocol in use do not follow the guidelines the protocol specification sets.

Register TPRPER3 release history

Register TPRPER3 was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if a call that is call processing busy routes to a treatment.

The system generates TRK343 if an IBN7 message does not contain the DPNSS message.

Register TPRPER4

Protocol error 4 (TPRPER4)

Register TPRPER4 increases when the system receives messages in a backward direction. This increase occurs when the control indicators for the protocol in use do not follow the guidelines the protocol specification sets.

Register TPRPER4 release history

Register TPRPER4 was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if a call that is call processing busy routes to a treatment.

The system generates TRK343 if an IBN7 message does not contain the DPNSS message.

OM group TRMTPR (end)

Register TPRPER5

Protocol error 5 (TPRPER5)

Register TPRPER5 increases when the associated signaling protocol cannot handle the class of call requested.

Register TPRPER5 release history

Register TPRPER5 was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if a call that is call processing busy routes to a treatment.

The system generates TRK343 if an IBN7 message does not contain the DPNSS message.

OM group TRMTRS

OM description

Resource shortage treatment group (TRMTRS)

The OM group TRMTRS counts calls the system routes to a treatment because a shortage of software or hardware resources causes a failure.

The OM group TRMTRS contains one register for each call treatment. The registers are named TRSnnnn, where nnnn is the external treatment abbreviation. The register increases each time a call goes through that treatment.

Release history

The OM group TRMTRS was introduced before BCS20.

GL04

A treatment was added to the register section for DMS-100G.

DMS-100G was added to register descriptions EMR1, EMR2, GNCT, NBLH, NBLN, NCRT, and NOSC.

MTX06

Register TRSOTAR was introduced in MTX06.

BCS31

Register TRSCHNF was introduced in BCS31.

Registers

The OM group TRMTRS registers appear on the MAP terminal as follows:

```
TRSNOSC     TRSNBLH     TRSNBLN     TRSEMR1
TRSEMR2     TRSCQOV     TRSNCRT     TRSNECG
TRSFECG     TRSTOVD     TRSEMR3     TRSEMR4
TRSSORD     TRSGNCT     TRSEMR5     TRSEMR6
TRSNOSR     TRSCGRO     TRSCHNF     TRSOTAR
```

This OM group contains spare registers which are not used but are visible to the user. Later software releases will make use of these registers. The registers will be documented at that time. The following spare registers appear on the MAP terminal:

OM group TRMTRS (continued)

```
                          RSSPR4
 RSSPR5       RSSPR6      RSSPR7       RSSPR8
 RSSPR9      RSSPR10      RSSPR11     RSSPR12
RSSPR13
```

When a spare register is in use, the register will retain the name that appears in the preceding MAP terminal. With the release of the next Northern Telecom software, the register name will change to reflect the use of the register.

The following treatments apply to DMS-100 local switching offices:

- NOSC
- NBLH
- FECG
- NBLN
- EMR1
- EMR2
- CQOV
- NCRT
- TOVD
- EMR3
- EMR4
- GNCT
- EMR5
- EMR6
- NOSR
- CGRO
- CHNF

The following treatments apply to DMS-200 toll switching offices:

- NOSC
- NBLH
- FECG

- NBLN
- EMR1
- EMR2
- CQOV
- NCRT
- EMR3
- EMR4
- GNCT
- EMR5
- EMR6
- NOSR
- CGRO

The following treatments apply to DMS-100/200 combined local and toll switching offices:

- NOSC
- NBLH
- FECG
- NBLN
- EMR1
- EMR2
- CQOV
- NCRT
- TOVD
- EMR3
- EMR4
- GNCT
- EMR5
- EMR6
- NOSR
- CGRO
- CHNF

OM group TRMTRS (continued)

The following treatments apply to DMS-MTX mobile telephone exchanges:

- NOSC
- NBLH
- FECG
- NBLN
- NCRT
- OTASP
- GNCT

The following treatments apply to DMS-250 tandem switching offices:

- NOSC
- NBLH
- FECG
- NCRT
- SORD
- GNCT

The following treatments apply to DMS-300 Gateway switching offices:

- NBLH
- NCRT
- NECG
- FECG
- GNCT

The following treatments apply to DMS-100G switching offices:

- EMR1
- EMR2
- GNCT
- NBLH
- NBLN
- NCRT
- NOSC

Group structure

The OM group TRMTRS provides one tuple for each office.

Key field:
There is no key field.

Info field:
There is no info field.

Table TMTCNTL defines all treatments.

The operating company uses subtable TMTCNTL.TREAT to define the tones, announcements, and/or states to return to the originator of a call. This sequence follows a specified treatment code during translation of the call. If a treatment code does not apply to an office type, the treatment is redundant. The treatment must be set to overflow or for the like tone.

Table OFRT lists the sequence of tones, announcements, and/or states to return to the originator of a call. The sequence follows a specified treatment code during translation of a call.

Table CLLI defines the common language location identifier (CLLI) of each tone and announcement. The following tables define each treatment CLLI. The tables do not define fixed treatment CLLIs, IDLE (idle), LKOUT (lockout), and COPP (cutoff on permanent signal and partial dial).

Table TONES defines the CLLI for software-generated tones.

Table STN defines the CLLI for hardware-generated tones.

Table ANNS defines the CLLI for recorded announcements.

Table DRAMS defines the CLLI for digital recorded announcements.

A call can terminate to a specified treatment code under the following two conditions:

- the operating company supplies translations that lead the call to a treatment
- the DMS detects fixed conditions and prescribes a treatment code without reference to the operating company translations

These conditions are not normal and prevent the completion of the call.

At times the treatment code is part of a normal call completion process. This process includes, for example, an announcement to the originator before the call ends.

OM group TRMTRS (continued)

When the DMS determines that the call must terminate to a specified treatment code, the DMS accesses subtable TRTCNTL.TREAT. The table shows the tone, announcement, or state to return to the originator. The table also shows the route in table OFRT that lists the sequence of tones, announcements, and/or states to return to the originator.

Associated OM groups

The OM group TRMTCM counts calls the system routes to a treatment that explains a call condition. The condition relates to a customer action but not authorization.

The OM group TRMTCU counts calls the system routes to a treatment that notifies the subscriber that the action of the subscriber is not appropriate. The action is not appropriate because of authorization reasons.

The OM group TRMTCU2 is an extension of group TRMTCU. The OM group TRMTCU2 counts calls the system routes to a treatment that notifies the subscriber that the action of the subscriber is not appropriate. The action is not appropriate because of authorization reasons.

The TRMTER counts calls the system routes to a treatment because a switching equipment failure causes a failure.

The TRMTFR counts calls the system routes to a treatment that is a normal sequence of a call.

The OM group TRMTFR2 is an extension of group TRMTFR. The OM group TRMTFR2 counts calls the system routes to a treatment that notifies the subscriber the action of the subscriber is not appropriate. The action is not appropriate because of authorization reasons.

Associated functional groups

The following functional groups associate with OM group TRMTRS:

- DMS-100 Local
- DMS-200 Toll
- DMS-100/200 Combined Local and Toll
- DMS-300 International Gateway for North America
- DMS-250 Tandem Switching Office for Common Carriers
- DMS-MTX Mobile Telephone Exchange

Associated functionality codes

The associated functionality codes for OM group TRMTRS appear in the following table.

Functionality	Code
Common Basic	NTX001AA
ISDN Functional Mode Basic Rate Services	NTX753AA

Register TRSCGRO

Customer group resource overflow (CGRO) treatment (TRSCGRO)

Register TRSCGRO counts calls that routed to the customer group resource overflow treatment for the following offices:

- DMS-100 local
- DMS-200 toll
- DMS-100/200 local/toll offices

An MDC call routes to the CGRO treatment when shortages occur on resources for a customer group, for example six-port conference circuits.

Register TRSCGRO release history

Register TRSCGRO was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TRSCHNF

Channel negotiation failure (CHNF) treatment (TRSCHNF)

For DMS-100 local, and DMS-100/200 local/toll offices,TRSCHNF counts calls that the system routes to channel negotiation failure treatment. This action occurs because B-channel negotiation fails at the terminating interface or because a link failure occurs.

OM group TRMTRS (continued)

Register TRSCHNF release history

Register TRSCHNF was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TRSCQOV

CAMA queue overflow (CQOV) treatment (TRSCQOV)

Register TRSCQOV counts calls the system routes to CAMA queue overflow treatment when the CAMA queue overflows for the following offices:

- DMS-100 local
- DMS-200 toll
- DMS-100/200 local/toll with TOPS or AOSS

Register TRSCQOV release history

Register TRSCQOV was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSEMR1

Emergency treatment 1 (TRSEMR1)

Register TRSEMR1 counts calls the system routes to emergency treatment 1 for the following offices:

- DMS-100 local
- DMS-100G
- DMS-200 toll
- DMS-100/200 local toll

A call that code blocking, destination code cancellation, or alternate route control deflects routes to emergency treatment 1. This action occurs if the

operating company sets deflected calls to route to EA1. The operating company sets deflected calls to route to the EA1 at the network management (NWM) level of a MAP display.

Register TRSEMR1 release history

Register TRSEMR1 was introduced before BCS20.

Associated registers

Register TRSEMR2 counts calls the system routes to emergency treatment 2. A call that code blocking, destination code cancellation, or alternate route control deflects routes to emergency treatment 2. This action occurs if the operating company sets deflected calls to route to EA2 at the NWM level of a MAP display.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSEMR2

Emergency treatment 2 (TRSEMR2)

Register TRSEMR2 counts calls that go to emergency treatment 2 for the following offices:

- DMS-100 local
- DMS-100G
- DMS-200 toll
- DMS-100/200 local/toll

A call that code blocking, destination code cancellation, or alternate route control deflects routes to emergency treatment 2. This action occurs if the operating company sets the deflected calls to route to EA2 at the NWM level of a MAP display.

Register TRSEMR2 release history

Register TRSEMR2 was introduced before BCS20.

Associated registers

Register TRSEMR1 counts calls the system routes to emergency treatment 1. A call that code blocking, destination code cancellation, or alternate route

OM group TRMTRS (continued)

control deflects routes to emergency treatment 1. This action occurs if the operating company sets deflected calls to route to EA1 at the NWM level of the MAP display.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSEMR3

Emergency treatment 3 (TRSEMR3)

Register TRSEMR3 counts calls the system routes to emergency treatment 3 for the following offices:

- DMS-100 local
- DMS-200 toll
- DMS-100/200 local/toll with TOPS

This action occurs because the digits dialed were other than 0-. The call exceeds the deflect call threshold for the queue, as assigned in the queue length threshold tables (QT0 to QT5).

Register TRSEMR3 release history

Register TRSEMR3 was introduced before BCS20.

Associated registers

Register TRSEMR4 counts calls the system routes to emergency treatment 4. This action occurs because the digits dialed were 0-. The call exceeds the deflect call threshold for the queue, as assigned in the queue length threshold tables (QT0 to QT5).

Associated logs

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSEMR4

Emergency treatment 4 (TRSEMR4)

Register TRSEMR4 counts calls the system routes to emergency treatment 4 for the following offices:

- DMS-100 local
- DMS-200 toll
- DMS-100/200 local/toll with TOPS

This action occurs because the digits dialed were 0-. The call exceeds the deflect call threshold for the queue, as assigned in the queue length threshold tables (QT0 to QT5).

Register TRSEMR4 release history

Register TRSEMR4 was introduced before BCS20.

Associated registers

Register TRSEMR3 counts calls the system routes to emergency treatment 3. This action occurs because the digits dialed were other than 0-. The call exceeds the deflect call threshold for the queue, as assigned in the queue length threshold tables (QT0 to QT5).

Associated logs

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSEMR5

Emergency treatment 5 (TRSEMR5)

Register TRSEMR5 counts directory help (411, 555, 131) calls that go to emergency treatment 5 for the following offices:

- DMS-100 local
- DMS-200 toll
- DMS-100/200 local/toll with AOSS

Register TRSEMR5 release history

Register TRSEMR5 was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

OM group TRMTRS (continued)

Register TRSEMR6

Emergency treatment 6 (TRSEMR6)

Register TRSEMR6 counts intercept calls the system routes to emergency treatment 6 for the following offices:

- DMS-100 local
- DMS-200 toll
- DMS-100/200 local/toll with AOSS

Register TRSEMR6 release history

Register TRSEMR6 was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if a call routes to a treatment after being call processing busy.

Register TRSFECG

Far-end congestion (FECG) treatment (TRSFECG)

Register TRSFECG counts calls the system routes to the far-end congestion treatment.

The system routes the following calls to FECG treatment:

- calls incoming on a private line
- calls incoming on an R1 signaling trunk
- calls incoming on an international 101 test trunk
- call outgoing on a No. 5 signaling trunk

The system routes the calls to FECG treatment for the following reasons:

- the far-end office encounters congestion in the network or outgoing trunks, while the system connects the call on the first attempt
- the system fails to connect the call on the first attempt for the following reasons:
  - — the proceed to send was not received
  - — the proceed to send was removed before the seizure was removed
  - — the proceed to send was not removed
  - — the release guard was not received
  - — on the second attempt the far-end office encounters congestion in the network or outgoing trunks

Register TRSFECG release history

Register TRSFECG was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSGNCT

Generalized no circuit (GNCT) treatment (TRSGNCT)

Register TRSGNCT counts calls the system routes to the generalized no circuit treatment for the following offices:

- DMS-100 local
- DMS-100G
- DMS-200 toll
- DMS-100/200 local/toll

A call that originates on a line or trunk routes to the generalized no circuit treatment under the following conditions. The trunk group (other than trunk group type operator verification) is the last route in the route list and all trunks are busy.

OM group TRMTRS (continued)

If the trunk group type is operator verification (VR), the call routes to no service circuit treatment.

For DMS-300 gateway offices, TRSGNCT counts calls the system routes to the generalized no circuit treatment. This action occurs because call processing detected a no circuit condition, excluding receivers and verification trunks.

If the system detects a no circuit condition for receivers or verification trunk, the call routes to NOSC treatment.

For DMS-250 tandem offices, TRSGNCT counts calls the system routes to the generalized no circuit treatment. A call that originates on an incoming or two-way trunk routes to the GNCT treatment when all trunks associated with the outgoing route are busy.

For DMS-MTX offices, TRSGNCT counts calls the system routes to the generalized no circuit treatment. This action occurs because no direct outward dial (DOD) trunk is available for a mobile-to-land call.

Register TRSGNCT release history

Register TRSGNCT was introduced before BCS20.

Associated registers

Register TRSNOSC counts calls the system routes to the no service circuit (NOSC) treatment.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSNBLH

Network blockage heavy traffic (NBLH) treatment (TRSNBLH)

Register TRSNBLH counts calls that go to the network blockage heavy traffic treatment for the following offices:

- DMS-100 local
- DMS-100G
- DMS-200 toll

- DMS-100/200 local/toll
- DMS-MTX

This action occurs because a path through the network is not available on one of the following types of calls:

- CAMA position, operator or receiver call, after the second attempt
- a three-way call
- from conference circuit to trunk
- from operator to line
- to metallic access trunk
- to line test unit on station ringer test call
- from conference port to called line

For DMS-300 gateway offices, TRSNBLH counts calls the system routes to the NBLH treatment.

Calls incoming on a private line go to the NBLH treatment for one of the following reasons:

- a second failure to prepare a call occurs for the following reasons:
  - — the outgoing trunk is not idle
  - — an input/output control block (IOCB) cannot link to the available outgoing trunk
  - — a network connection is not available
- call control block is not available during preparation of the call
- the call cannot connect to a trunk during preparation because no network connection is available or the network connection lacks integrity
- a second failure to get a network connection occurs during preparation of a call

Calls incoming on an R1 signaling trunk route to the NBLH treatment for one of the following reasons:

- a second failure to prepare the call occurs for the following reasons:
  - — the outgoing trunk is not idle
  - — an IOCB cannot link to the available outgoing trunk
  - — a network connection is not available
- call condense blocks are not available during preparation of the call

OM group TRMTRS (continued)

- the call cannot connect to a trunk during preparation because no network connection is available, or the network connection lacks integrity
- a second failure to get a network connection occurs during preparation of the call
- a failure to find a network connection or connect to an announcement occurs during supervision of the call
- the call connects to an announcement for the maximum number of announcement cycles during supervision of the call

The system routes incoming calls on an international 101 test line to the NBLH treatment for one of the following reasons:

- call condense blocks are not available during preparation of the call
- the call fails to connect to a trunk during preparation because a network connection is not available, or the network connection lacks integrity. A network connection is not available, or the network connection lacks accuracy

The system routes outgoing calls on a terminating 102 test line to the NBLH treatment after two failures to prepare the call.

The failures occur for three reasons:

- the outgoing trunk is not idle
- an input/output control block (IOCB) cannot connect to the available outgoing trunk
- a network connection is not available.

The system routes outgoing calls on a No. 5 or a No. 6 signaling trunk to the NBLH treatment because call condense blocks are not available during preparation of the call.

The system routes outgoing calls on an International 101 test line to the NBLH treatment for one of the following reasons:

- call control blocks are not available during preparation of the call
- the call cannot connect to a trunk during preparation because a network connection is not available or the network connection lacks integrity
- a second failure to get a network connection occurs during preparation of the call

The system routes outgoing calls on a terminating 104 test line to the NBLH treatment. This action occurs because a network connection is not available during preparation of the call.

The system routes outgoing calls on a transmission test unit (ATME2) to the NBLH treatment. This action occurs because a network connection is not available or the network connection lacks integrity during preparation.

For DMS-250 tandem office, TRSNBLH counts calls the system routes to the NBLH treatment for one of the following reasons:

- two attempts fail to reserve a network path from an incoming trunk to an outgoing trunk
- two attempts fail to reserve a network path from an outgoing trunk to an audio tone detector

Register TRSNBLH release history

Register TRSNBLH was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

The system generates NET130 when a network path is not available.

The system generates NET136 when an attempt occurs to connect two network ports with no in-service plane available.

Register TRSNBLN

Network blockage normal traffic (NBLN) treatment (TRSNBLN)

Register TRSNBLN counts calls that route to NBLH treatment for the following offices:

- DMS-100 local
- DMS-100G
- DMS-200 toll

OM group TRMTRS (continued)

- DMS-100/200 local/toll
- DMS-MTX

This action occurs after the system aborts the calls because of failure to get a channel in the terminating peripheral module.

Register TRSNBLN release history

Register TRSNBLN was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSNCRT

No circuit (NCRT) treatment (TRSNCRT)

Register TRSNCRT counts calls the system routes to the no circuit treatment for the following offices:

- DMS-100 local
- DMS-100G
- DMS-200 toll
- DMS-100/200 local/toll
- DMS-250 tandem
- DMS-MTX offices

A routine call that network management deflects will route to no circuit treatment. This action occurs if the operating company sets the deflected calls to route to NCA at the NWM level of a MAP display.

A network manager can also specify the no circuit treatment as an alternative to EMR1 or EMR2. This alternative applies to calls aborted through operation of cancel-from (CANF), or cancel-to (CANT) network management controls.

For DMS-300 gateway offices, TRSNCRT counts calls the system routes to the no circuit treatment.

The system routes the following calls to NCRT treatment:

- calls incoming on a private line
- calls incoming on an R1 signaling trunk
- calls incoming on an international 101 test line

The system routes these calls to the NCRT treatment for one of the following reasons:

- While the system connects the call, glare occurs on the outgoing trunk. Another attempt to connect is not possible.
- While the system connects the call, glare occurs between the CC and the N5 peripheral module (PM). Glare also occurs between the N5 PM and the far end PM. Another attempt to connect is not possible.
- While the system connects the call, the outgoing trunk detects a call failure. Another attempt to connect is not possible.
- While the system routes the call or performs translation verification, all routes in the route list are not available.
- While the call is in supervision, or during a repeat call attempt, the call attempt fails because of network sytem congestion.

The system routes outgoing calls on an R1 signaling trunk to the NCRT treatment for one of the following reasons:

- While the the system connects the call, glare occurs on the outgoing trunk. Another attempt to connect is not possible.
- While the system connects the call, glare occurs between the CC and the N5 peripheral module (PM). Glare also occurs between the N5 PM and the far end PM. Another attempt to connect is not possible.
- While the system connects the call, the outgoing trunk detects a call failure. Another attempt to connect is not possible.

Register TRSNCRT release history

Register TRSNCRT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

OM group TRMTRS (continued)

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSNECG

Near end congestion (NECG) treatment (TRSNECG)

For DMS-300 gateway offices, TRSNECG counts calls the system routes to the near-end congestion treatment.

The system routes incoming calls on a private line or an international 101 test line to NECG treatment. The system uses these routes for one of the following reasons:

- while the system routes a call or verifies translation, routes in the route list are not available
- while in supervision or on a repeat attempt to originate a call, a call attempt fails because of network system congestion

The system routes incoming calls on an R1 signaling trunk to the NECG treatment. The system uses this route because while the system routes calls or verifies translation, routes in the route list are not available.

Register TRSNECG release history

Register TRSNECG was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSOTAR

Over The Air Services Provisioning (OTASP) Resourses Unavailable treatment (TRSOTAR)

For DMS-MTX offices, TRSOTAR counts the OTASP_RESOURCES_UNAVAILABLE treatments.

An OTASP origination receives this treatment when:

- the system cannot allocate a temporary MIN (TMIN)
- the system cannot allocate a temporary reference number (TRN)
- the system cannot allocate a TMIN-related VLR entry

Register TRSOTAR release history

Register TRSSORD was introduced in MTX06.

Associated registers

Register TMINUNAV and TRNUNAVL in OTASYS OM group.

Associated logs

There are no associated logs.

Register TRSNOSC

No service circuit (NOSC) treatment (TRSNOSC)

Register TRSNOSC counts calls the system routes to NOSC treatment for the following offices:

- DMS-100 local
- DMS-100G
- DMS-200 toll
- DMS-100/200 local/toll
- DMS-MTX

The system routes the calls to NOSC treatment for one of the following reasons:

- all receivers, senders, or verification 90 trunks are busy
- The trunks that queue for a CAMA position trunk is equal to or greater than the quantity specified in field DEFLECT. The specified quantity is in table CAMACSW
- CAMA positions are not available after the second try
- the operator queue overflows
- conference circuits are not available
- a timeout in CAMA queue occurs
- metallic test access connections are not available
- resources for 108 testline calls are not available

OM group TRMTRS (continued)

- tone or announcement is not available on an intercom call
- the last operator verification trunk group in a route list encounters an all-trunks-busy condition

For DMS-250 tandem offices, TRSNOSC counts calls the system routes to NOSC treatment for one of the following reasons:

- the recording units are not available for call detail recording billing. The system blocks the call as specified by office parameter CDR_UNAVAIL_BLOCK in table OFCVAR
- echo suppression is specified but not available for test line calls
- resources for conference calling are not available when the feature is activated

Register TRSNOSC release history

Register TRSNOSC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSNOSR

No software resource (NOSR) treatment (TRSNOSR)

For DMS-100 local, DMS-200 toll, and DMS-100/200 local/toll offices, TRSNOSR counts calls that route to the no software resource treatment.

This treatment occurs when the system cannot schedule a CPWAKEUP request or when software resources are all busy. These resources include multiblocks, recording units, custom calling feature extension blocks, supplementary data blocks, or feature data blocks.

Register TRSNOSR release history

TRSNOSR was introduced prior to BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSSORD

Storage overflow reorder (SORD) treatment (TRSSORD)

For DMS-250 tandem offices, TRSSORD counts calls that go to the storage overflow reorder treatment for one of the following reasons:

- the DMS-250 runs out of network communications service system (NCS) extension blocks while the system translates a virtual private network (VPN) call
- the DMS-250 runs out of feature control blocks at the time of a travel card number service (TCN) call origination

Register TRSSORD release history

Register TRSSORD was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TRSTOVD

Toll overload (TOVD) treatment (TRSTOVD)

For DMS-100 local, and DMS-100/200 local/toll offices, TRSTOVD counts calls that go to the toll overload treatment.

A call that originates on a line goes to the toll overload treatment if the calling line is denied access to the toll network. Access is denied because the toll network protection feature is activated.

TRSTOVD release history

TRSTOVD was introduced before BCS20.

Associated registers

None

OM group TRMTRS (end)

Associated logs

LINE138 is generated if the system routes a call to a treatment after being call processing busy.

TRK138 is generated if the system routes a call to a treatment after being call processing busy.

OM group TROUBLEQ

OM description

System referred line diagnostic queue (TROUBLEQ)

The OM group TROUBLEQ provides data on trouble queues. Trouble queues are ordered lists of line equipment that require troubleshooting. If the system detects a fault on a line, the line needs maintenance tests and the system attempts to put the line in a trouble queue.

The OM group TROUBLEQ has three registers. Two of the registers (TRBQATT and TRBQOVL) count successful and unsuccessful attempts to place a line on a trouble queue. The other register (TRBQOCC) records the number of lines in a trouble queue.

Release history

The OM group TROUBLEQ was introduced before BCS20.

NA002

This release added a key value for the ISDN incoming message overload (ICMO) line queue.

BCS34

Registers decreased in size because of a software change to reduce log volume. This also reduces the number of lines in the shower queue.

BCS33

You can convert register TRBQOCC from 100 call seconds (CCS) to deci-erlangs before the usage count displays. Use the OMSHOW command on the ACTIVE class to display the usage count.

BCS22

Two key values are added for the repeat offender and incoming message overload line queues.

BCS23

Eight key values are added for ISDN lines.

Registers

The OM group TROUBLEQ registers appear on the MAP (maintenance and administration position) terminal as follows:

```
TRBQATT      TRBQOCC      TRBQOVFL
```

OM group TROUBLEQ (continued)

Group structure

The OM group TROUBLEQ provides one tuple for each of the key field values shown below.

Key field:
TROUBLEQ_TYPES identifies the type of trouble queue.

Associated OM groups

There are no associated OM groups.

Associated functional groups

The following functional products provide OM group TROUBLEQ:

- DMS-100 Local
- DMS-100/200 Local/Toll
- DMS-100/200 TOPS
- DMS-100 Military System or Military PBX
- DMS-100 Meridian
- DMS-MTX
- Meridian SL-100 PBX

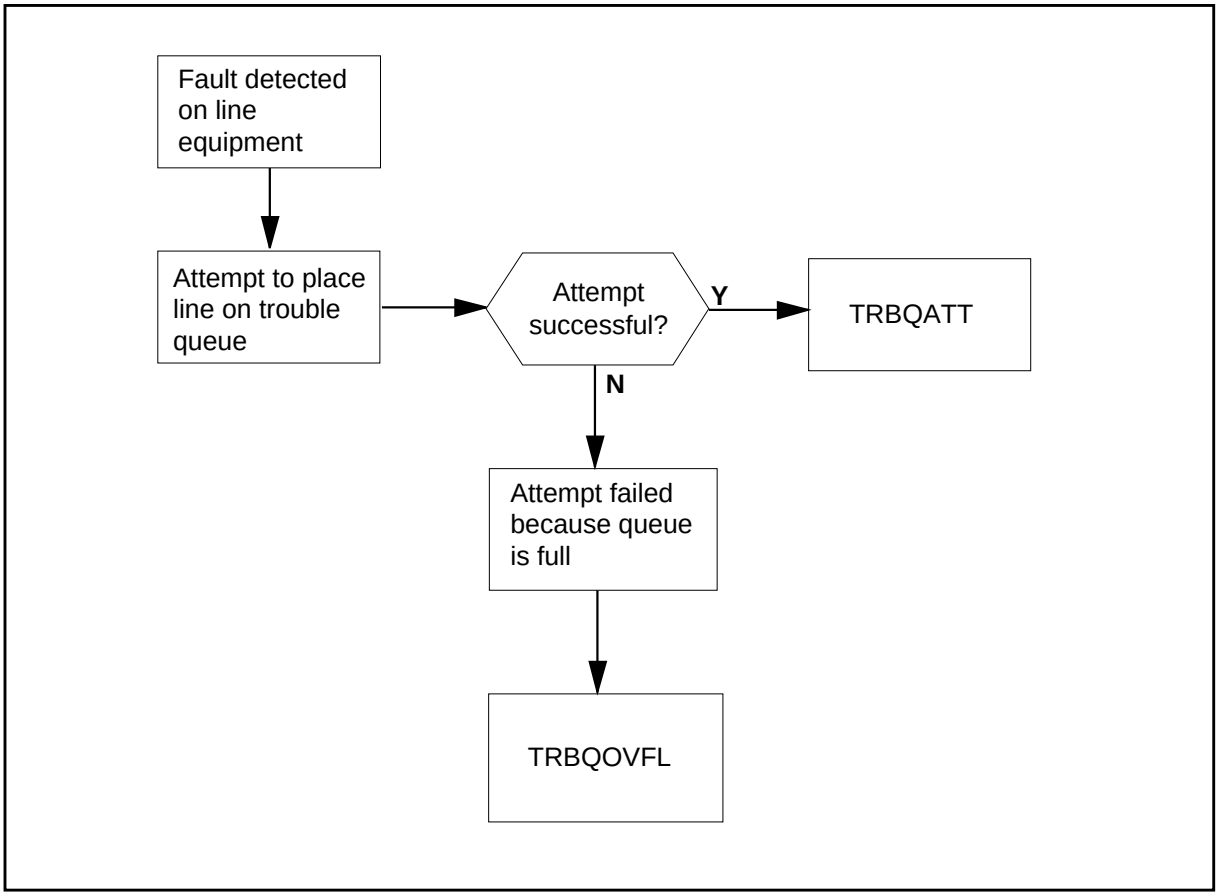
Associated functionality codes

The associated functionality codes for the OM group TROUBLEQ appear in the following table.

Functionality	Code
BASE	BASE0001
NI0 ISDN Base	NI000007
BAS Generic	BAS00003

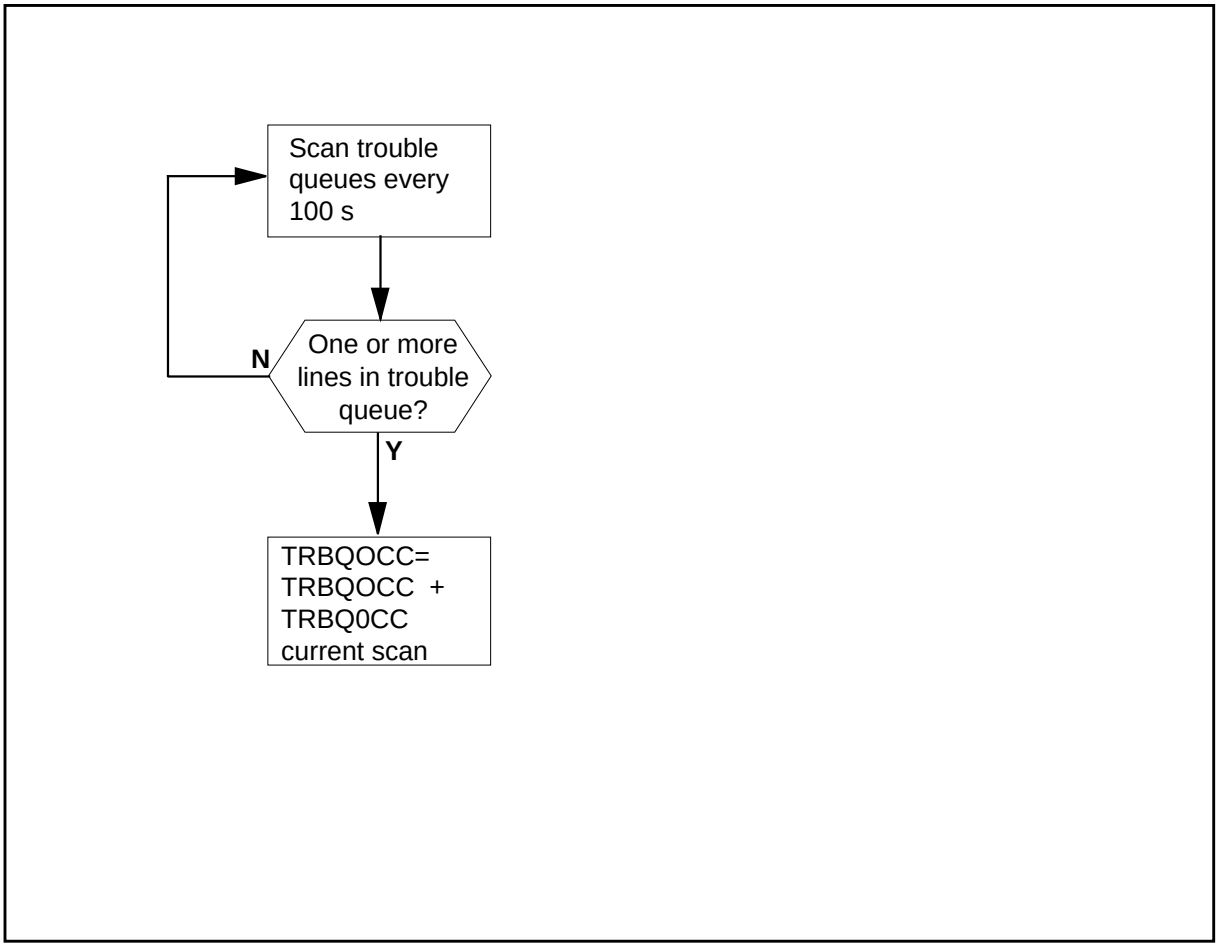
OM group TROUBLEQ (continued)

OM group TROUBLEQ registers



OM group TROUBLEQ (continued)

OM group TROUBLEQ usage registers



Register TRBQATT

Trouble queue attempts (TRBQATT)

Register TRBQATT is an event register. The count in register TRBQATT increases when the system attempts to place a line in a trouble queue.

If an ISDN line fails an in-service self-test, the line goes to a shower queue for full out-of-service maintenance tests.

Register TRBQATT release history

Register TRBQATT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates a LINE100 log when a system-initiated self-test passes.

The system generates a LINE101 log when a system-initiated self-test fails.

The system generates a LINE204 log when trouble arises during call processing.

The system generates a LINE205 log under the following conditions:

- four or more function-key hits come from a subscriber within 2 s
- an ISDN line babbles

Register TRBQOCC

Trouble queue occupancy (TRBQOCC)

Register TRBQOCC is a usage register. Every 100 s this register adds the average number of lines in a trouble queue for the scan interval to an existing record of lines in the trouble queue. The register is cleaned after the transfer of the data to HOLDING class.

Register TRBQOCC release history

Register TRBQOCC was introduced before BCS20.

BCS33

When you set office parameter OMINERLANGS to Y, you can convert the use count from CCS to deci-erlangs before the count displays. Use the OMSHOW command on the ACTIVE class to convert the use count. The value held in the active registers remains in CCS. This value also converts to deci-erlangs before the transfer from ACTIVE to HOLDING and is held in deci-erlangs in HOLDING class.

Associated registers

There are no associated registers.

Associated logs

The system generates a LINE100 log when a system-initiated self-test passes.

The system generates a LINE205 log under the following conditions:

- four or more function-key hits come from a subscriber set within 2 s
- an ISDN line babbles

OM group TROUBLEQ (end)

Register TRBQOVFL

Trouble queue overflows (TRBQOVFL)

Register TRBQOVFL increases if the system fails to place a line in a trouble queue because the queue is full.

If the system cannot place a line in the following trouble queues, alternate action does not result:

- shower (SHOWERQ)
- incoming message overload lines (ICMOLINESQ)
- ISDN in service (ISDN_INSVDGQ)

Register TRBQOVFL release history

Register TRBQOVFL was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates a LINE204 log when the system encounters trouble during call processing.

The system generates a LINE205 log under the following conditions:

- four or more function keys come from a subscriber within 2 s
- an ISDN line babbles

OM group TS

OM description

Time switch (TS)

The OM group TS records the use of the peripheral-side (P-side) time switches. Eight usage registers for each network module record the use of a separate time switch within the network module. New network modules have data in fields TS0 through TS3. Registers TS4 through TS7 apply to offices equipped with NT0X48 networks.

These registers record use of both the transmit (A) and receive (B) sides of a network module. The total of the registers (either TS0 to TS3, or TS4 to TS7) does not equal the true total use of the network module. The true total equals half the sum of the registers.

Register TS is provided for all types of DMS offices.

Release history

The OM group TS was introduced before BCS20.

BCS33

This release allows conversion of registers TS0 through TS7 from CCS to deci-erlangs display with the OMSHOW command on the ACTIVE class.

BCS31

This release removed TS for offices equipped with an enhanced network (ENET).

BCS21

Software changes provide usage counts either in CCS or deci-erlangs.

Registers

The OM group TS registers appear on the MAP terminal as follows:

```
TS0         TS1         TS2         TS3
TS4         TS5         TS6         TS7
```

Group structure

The OM group TS provides one tuple for each network module.

Key field:

There is no key field.

OM group TS (continued)

Info field:
There is no info field.

Associated OM groups

There are no associated OM groups.

Associated functional groups

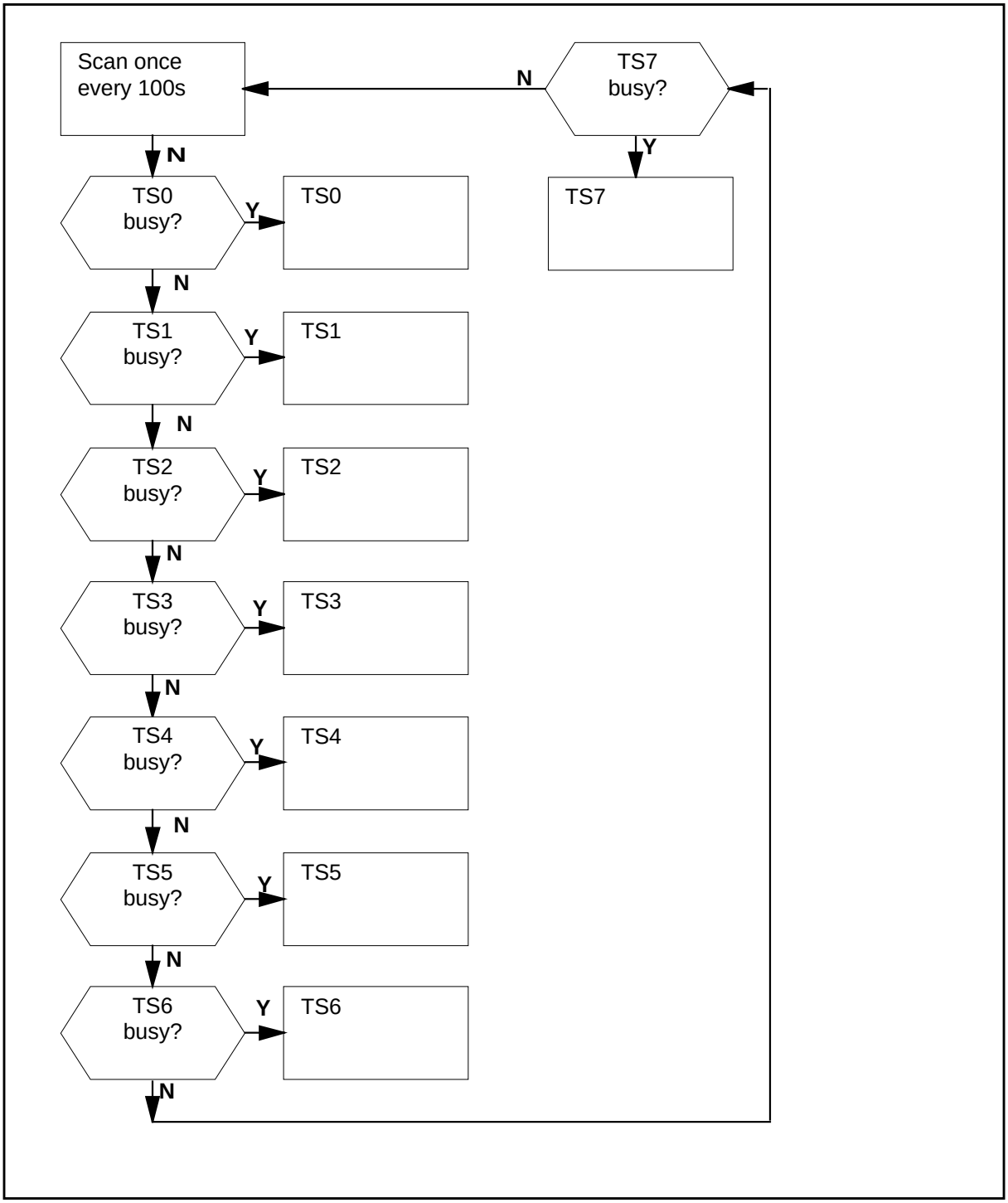
There are no associated functional groups.

Associated functionality codes

The associated functionality codes for OM group TS appear in the following table.

Functionality	Code
Enhanced Network-Basic	NTXE01AA
Common Basic	NTX001AA
OMs in Erlangs	NTX664AA

OM group TS registers



OM group TS (continued)

Register TS0

Time switch 0 (TSO)

Register TSO is a usage register. The scan rate is 100 s. Register TS0 records the use of P-side time switch 0.

Register TS0 release history

Register TS0 was introduced before BCS20.

BCS33

When office parameter OMINERLANGS is set to Y, you can convert the use count from CCS to deci-erlangs before the count displays. Use the OMSHOW command on the ACTIVE class to convert use count. The value held in the active registers remains in CCS.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TS1

Time switch 1 (TS1)

Register TS1 is a usage register. The scan rate is 100 s. Register TS1 records the use of P-side time switch 1.

Register TS1 release history

Register TS1 was introduced before BCS20.

BCS33

When office parameter OMINERLANGS is set to Y, you can convert the usage count from CCS to deci-erlangs before the count displays. Use the OMSHOW command on the ACTIVE class to convert the use count. The value held in the active registers remains in CCS.

BCS21

Software changes provides use counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TS2

Time switch 2 (TS2)

Register TS2 is a usage register. The scan rate is 100 s. Register TS2 records the use of P-side time switch 2.

Register TS2 release history

Register TS2 was introduced prior to BCS20.

BCS33

When office parameter OMINERLANGS is set to Y, you can convert the use count from CCS to deci-erlangs before the count displays. Use the OMSHOW command on the ACTIVE class to convert the use count. The value held in the active registers remains in CCS.

BCS21

Software change to provide usage counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TS3

Time switch 3 (TS3)

Register TS3 is a usage register. The scan rate is 100 s. Register TS3 records the use of P-side time switch 3.

Register TS3 release history

Register TS3 was introduced before BCS20.

BCS33

When office parameter OMINERLANGS is set to Y, you can convert the use count from CCS to deci-erlangs before the count displays. Use the OMSHOW command on the ACTIVE class to convert the use count. The value held in the active registers remains in CCS.

BCS21

Software changes provide use counts in CCS or deci-erlangs.

OM group TS (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TS4

Time switch 4 (TS4)

Register TS4 is a usage register. The scan rate is 100 s. Register TS4 records the use of P-side time switch 4.

Register TS4 release history

Register TS4 was introduced before BCS20.

BCS33

When office parameter OMINERLANGS is set to Y, you can convert the use count from CCS to deci-erlangs before the count displays. Use the OMSHOW command on the ACTIVE class to convert the use count. The value held in the active registers remains in CCS.

BCS21

Software changes provide use counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TS5

Time switch 5 (TS5)

Register TS5 is a usage register. The scan rate is 100 s. Register TS5 records the use of P-side time switch 5.

Register TS5 release history

Register TS5 was introduced before BCS20

BCS33

When office parameter OMINERLANGS is set to Y, you can convert the use count from CCS to deci-erlangs before the count displays. Use the OMSHOW

command on the ACTIVE class to convert the use count. The value held in the active registers remains in CCS.

BCS21

Software changes provide use counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TS6

Time switch 6 (TS6)

Register TS6 is a usage register. The scan rate is 100 s. Register TS6 records the use of P-side time switch 6.

Register TS6 release history

Register TS6 was introduced before BCS20.

BCS33

When office parameter OMINERLANGS is set to Y, you can convert the use count from CCS to deci-erlangs before the count displays. Use the OMSHOW command on the ACTIVE class to convert the use count. The value held in the active registers remains in CCS.

BCS21

Software changes provide use counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TS7

Time Switch 7 (TS7)

Register TS7 is a usage register. The scan rate is 100 s. Register TS7 records the use of P-side time switch 7.

OM group TS (end)

Register TS7 release history

Register TS7 was introduced before BCS20.

BCS33

When office parameter OMINERLANGS is set to Y, you can convert the use count from CCS to deci-erlangs before the count displays. Use the OMSHOW command on the ACTIVE class to convert the use count. The value held in the active registers remains in CCS.

BCS21

Software changes provide use counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TTCCARR

OM description

TTC carrier (TTCCARR)

The OM group TTCCARR provides information about alarms and state changes that occur on Telecommunication Technical Committee interface standard (TTC) carriers. The TTC is a Japanese 30-channel frame structure with 32 timeslots, used to package digital voice/data in a format acceptable for communication at a rate of 2048 kbits/s.

The TTC standard is like the Consultative Committee on International Telephony and Telegraphy (CCITT) pulse code modulation 30 (PCM30) standard and the Japanese M20 standard.

Release history

The OM group TTCCARR was introduced in BCS31.

Registers

The OM group TTCCARR registers appear on the MAP terminal as follows:

```
FAERROR     MAERROR     SBERROR     AISERROR
SLPERROR    FAFAULT     MAFAULT     SBFAULT
AISFAULT    SLPFAULT    SYSBCARR    MANBCARR
CBSYCARR
```

Group structure

The OM group TTCCARR provides one tuple for each office.

Key field:
There is no key field.

Info field:
TTCOMINF

Associated OM groups

There are no associated OM groups.

Associated functional groups

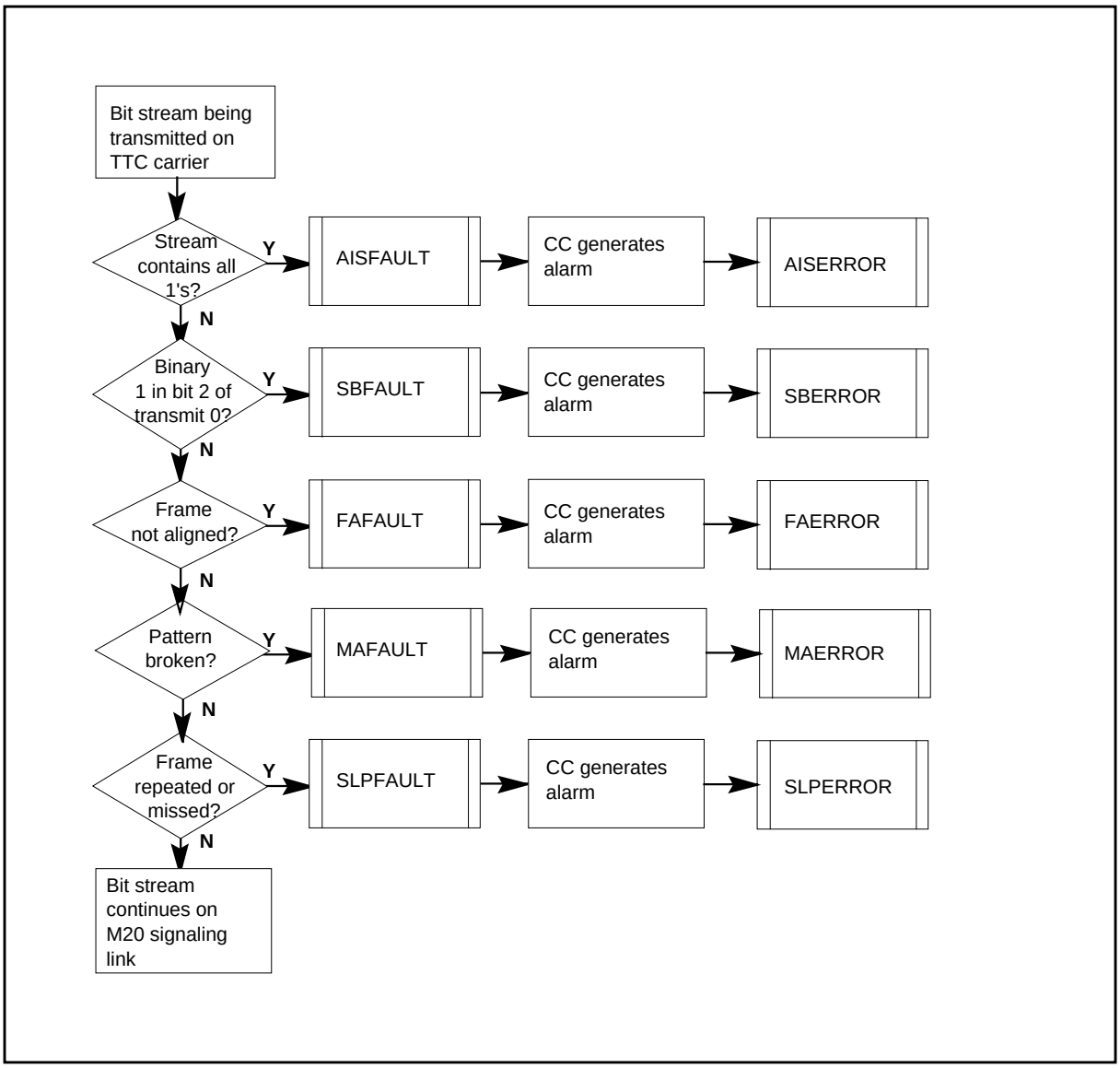
There are no associated functional groups.

Associated functionality codes

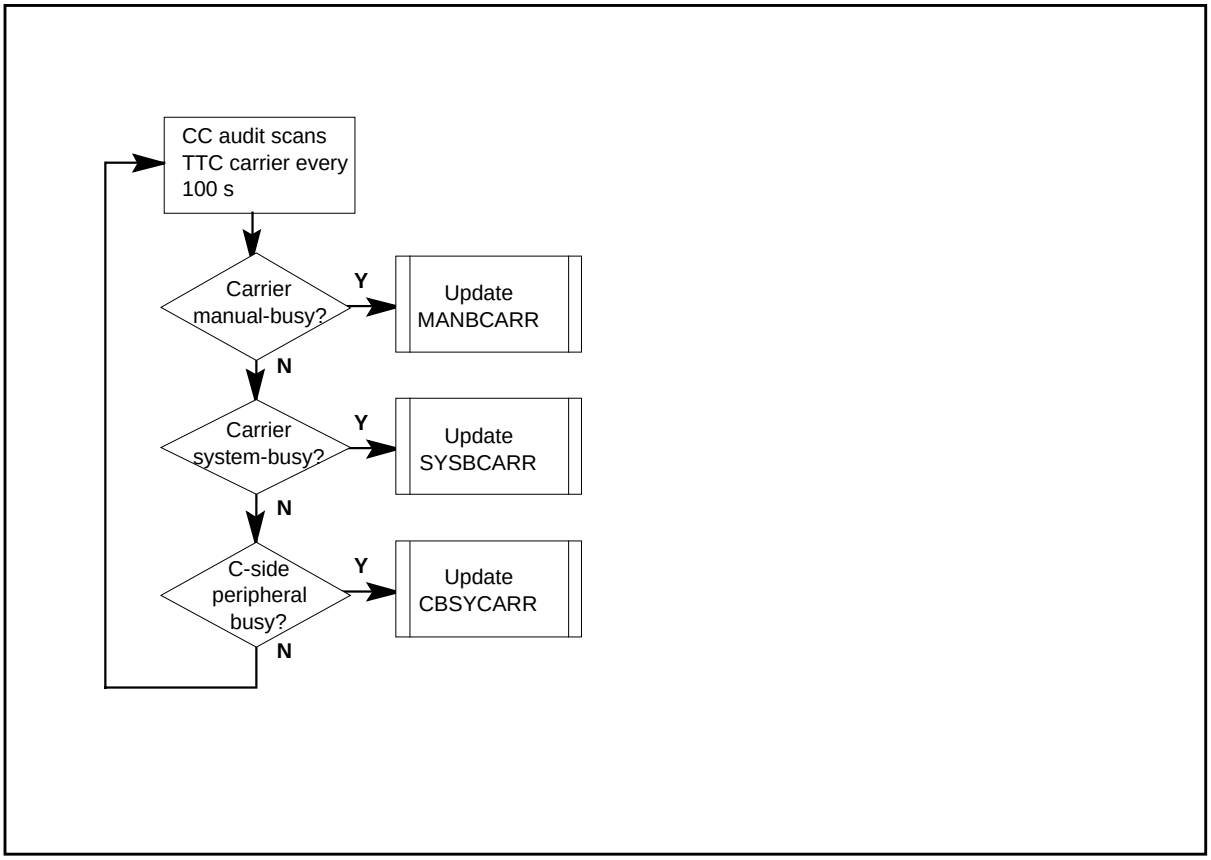
There are no associated functionality codes.

OM group TTCCARR (continued)

OM group TTCCARR registers



OM group TTCCARR usage registers



Register AISERROR

Alarm indication signal error (AISERROR)

Register AISERROR increases when the central control (CC) generates an alarm when the system detects an alarm indication signal (AIS) fault on a TTC carrier. The fault occurs when the system detects a continuous stream of 1s on the incoming carrier. The stream indicates that the link is in a manual-busy state. Before the system raises an AIS, the system must receive at least one frame of 1s.

Register AISERROR release history

Register AISERROR was introduced in BCS31.

Associated registers

Register AISFAULT increases when the system detects an AIS fault on an incoming TTC carrier.

OM group TTCCARR (continued)

Associated logs

There are no associated logs.

Register AISFAULT

AIS fault (AISFAULT)

Register AISFAULT increases when the system detects an AIS fault on an incoming TTC carrier. The fault occurs when the system detects a stream of 1s on the incoming carrier. The stream indicates that the link is in a manual-busy state.

Register AISFAULT release history

Register AISFAULT was introduced in BCS31.

Associated registers

Register AISERROR increases when the central control (CC) generates an alarm and detects an AIS fault on a TTC carrier.

Associated logs

There are no associated logs.

Register CBSYCARR

C-side peripheral busy carrier (CBSYCARR)

Register CBSYCARR updates every 100 s. Register CBSYCARR records the amount of time the TTC carrier is in a Core side (C-side) peripheral busy (CBSY) state. The system places the carrier in this state when the C-side peripheral module goes out of service.

Register CBSYCARR release history

Register CBSYCARR was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register FAERROR

Frame alignment error (FAERROR)

Register FAERROR increases when the central control (CC) generates an alarm and detects a frame alignment (FA) fault on a TTC carrier. This fault

occurs when a code violation bit is missing or when two bits are not positioned correctly on the carrier. This means that the two bits are less or more than 125 us apart. The FA alarm indicates a loss of the incoming signal or a loss of incoming frame alignment.

Register FAERROR release history

Register FAERROR was introduced in BCS31.

Associated registers

Register FAFAULT increases when the system detects an FA fault on an incoming TTC carrier.

Associated logs

There are no associated logs.

Register FAFAULT

Frame alignment fault (FAFAULT)

Register FAFAULT increases when the system detects a FA fault on an incoming TTC carrier. The fault occurs when a code violation bit is missing or when two bits are not positioned correctly on the carrier. This means that the two bits are less or more than 125 us apart.

Register FAFAULT release history

Register FAFAULT was introduced in BCS31.

Associated registers

Register FAERROR increases when the CC generates an alarm and detects an FA fault on a TTC carrier.

Associated logs

There are no associated logs.

Register MAERROR

Multiframe alignment error (MAERROR)

Register MAERROR increases when the central control (CC) generates an alarm when the system detects a multiframe alignment (MA) fault on a TTC carrier. This fault occurs when the correct multiframe pattern breaks in bit 1 of timeslot 0. The MA alarm indicates a local loss of multiframe alignment.

Register MAERROR release history

Register MAERROR was introduced in BCS31.

OM group TTCCARR (continued)

Associated registers

Register MAFAULT increases when the system detects an MA fault on a TTC carrier.

Associated logs

There are no associated logs.

Register MAFAULT

Multiframe alignment fault (MAFAULT)

Register MAFAULT increases when the system detects a MA fault on a TTC carrier. The fault occurs when the correct multiframe pattern breaks in bit 1 of timeslot 0.

Register MAFAULT release history

Register MAFAULT was introduced in BCS31.

Associated registers

Register MAERROR increases when the CC generates an alarm and detects an MA fault on a TTC carrier.

Associated logs

There are no associated logs.

Register MANBCARR

Manual-busy carrier (MANBCARR)

Register MANBCARR updates every 100 s. Register MANBCARR records the amount of time the TTC carrier is in a manual-busy (ManB) state. The maintenance personnel at a MAP terminal place the carrier in this state.

Register MANBCARR release history

Register MANBCARR was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register SBERROR

Signaling bit error (SBERROR)

Register SBERROR increases when the CC generates an alarm and detects a signaling bit (S-bit) fault on a TTC carrier. This fault occurs when the system finds a binary 1 in bit 2 of timeslot 0. In this event, the system cannot receive the incoming 2048 kbits/s signal on the TTC carrier.

Register SBERROR release history

Register SBERROR was introduced in BCS31.

Associated registers

Register SBFAULT increases when an incoming TTC carrier detects an S-bit fault.

Associated logs

There are no associated logs.

Register SBFAULT

Signaling bit fault (SBFAULT)

Register SBFAULT increases when the system detects a S-bit fault on a TTC carrier. This fault occurs when the system finds a binary 1 in bit 2 of timeslot 0. The result is that the system cannot receive the incoming 2048 kbits/s signal on the TTC carrier.

Register SBFAULT release history

Register SBFAULT was introduced in BCS31.

Associated registers

Register SBERROR increases when the CC generates an alarm when the system detects an S-bit fault on a TTC carrier.

Associated logs

There are no associated logs.

Register SLPERROR

Slip error (SLPERROR)

Register SLPERROR increases when the CC generates an alarm when the system detects a slip fault on a TTC carrier. This fault occurs when a frame of data on the carrier repeats or slips.

Register SLPERROR release history

Register SLPERROR was introduced in BCS31.

OM group TTCCARR (end)

Associated registers

Register SLPFAULT increases when the system detects a slip fault on an incoming TTC carrier.

Associated logs

There are no associated logs.

Register SLPFAULT

Slip fault (SLPFAULT)

Register SLPFAULT increases when the system detects a slip fault on an incoming TTC carrier. This fault occurs when a frame of data on the carrier repeats or slips over.

Register SLPFAULT release history

Register SLPFAULT was introduced in BCS31.

Associated registers

Register SLPERROR increases when the CC generates an alarm when the system detects a slip fault on a TTC carrier.

Associated logs

There are no associated logs.

Register SYSBCARR

System-busy carrier (SYSBCARR)

Register SYSBCARR updates every 100 s. Register SYSBCARR records the time that the TTC carrier is system busy (SysB) because of alarms or faults.

Register SYSBCARR release history

Register SYSBCARR was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TWCIBN

OM description

Three-way calling Integrated Business Network (TWCIBN)

The OM group TWCIBN provides information on the successes and failures in each customer group of the Integrated Business Network (IBN) features. The IBN features are Three-way Calling and Call Transfer.

Three-way Calling/Call Transfer allows a caller to include a third party in the call and transfer the call to the third party.

Release history

The OM group TWCIBN was introduced in BCS22.

MMP13

Registers CXRRABAN and CXRRSUCC were updated to include pegs for IBN7 camp-on and recall.

NA004

Registers TWCOVRL, CXFRATT, and CXFRFAIL were modified in NA004 to include pegs for U3WC and 3WC.

BCS32

The Fast Transfer feature increases registers TWCATT, TWCATT2, TWCFAIL, TWCOVFL, CXFRATT, CXFRATT2, and CXFRFAIL.

BCS27

Software change to include counts for three-way calls and call transfers initiated through the Three-way Call Public (3WCPUB) feature.

BCS25

Registers CXRRSUCC and CXRRABAN were introduced in BCS25.

Registers

The OM group TWCIBN registers appear on the MAP terminal as follows:

```
TWCATT          TWCATT2         TWCFAIL         TWCOVFL
CXFRATT         CXFRATT2        CXFRFAIL        CXRRSUCC
CXRRABAN
```

OM group TWCIBN (continued)

Group structure

The OM group TWCIBN provides one tuple for each customer group.

Key field:
Customer group name

Info field:
OMIBNGINFO

The number of data blocks necessary for this feature specifies parameter NO_OF_FTR_DATA_BLKS in table OFCENG.

Parameter TOPS_THRESHOLD in table OFCENG specifies the percentage of three-way conference trunks dedicated for traffic operator position system (TOPS) operation specifies .

Associated OM groups

OM group TWCIBN pegs OM group CF3P after a 3-port circuit request.

Associated functional groups

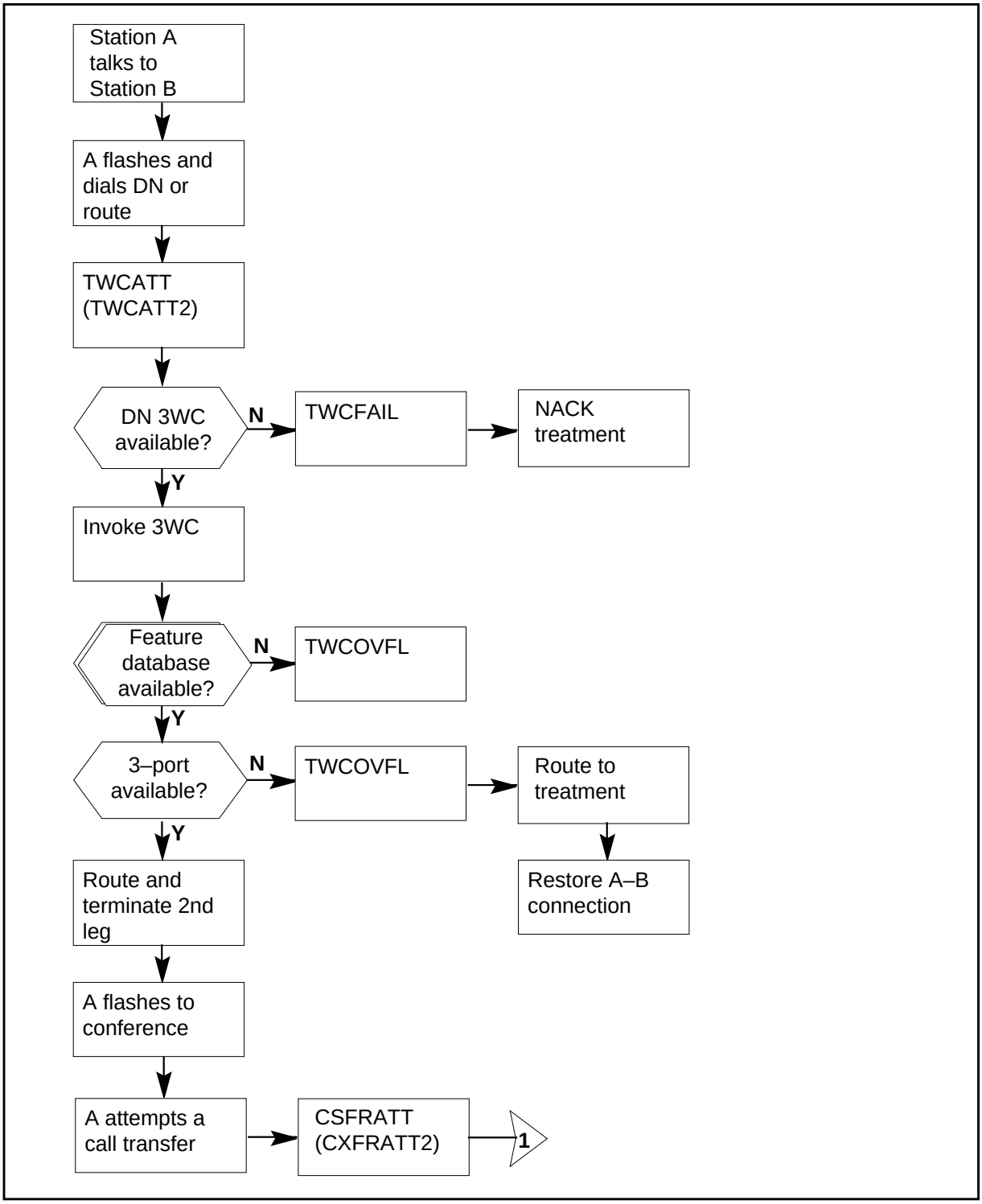
The IBN Integrated Business Network functional group associates with the OM group TWCIBN.

Associated functionality codes

The associated functionality codes for the OM group TWCIBN appear in the following table.

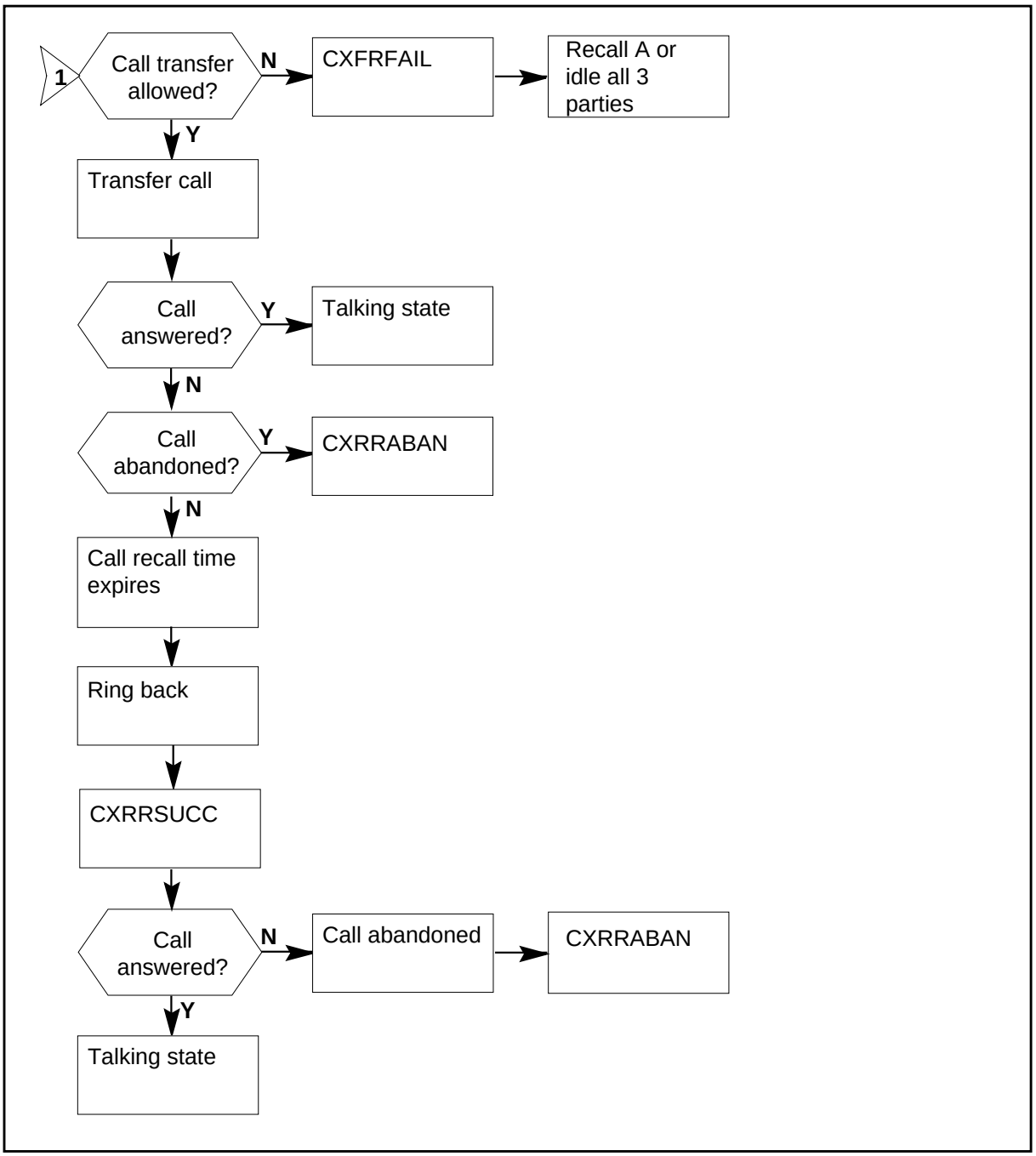
Functionality	Code
Enhanced Three Way Calling - IBN	NTX820AA
Integrated Business Networks (Basic)	NTX100AA

OM group TWCIBN registers



OM group TWCIBN (continued)

OM group TWCIBN registers (continued)



Register CXFRATT

Call transfer attempts (CXFRATT)

Register CXFRATT counts attempts to transfer a call.

Register CXFRATT release history

Register CXFRATT was introduced in BCS22.

NA004

The U3WC feature increases register CXFRATT

BCS32

The Fast Transfer feature increases register CXFRATT.

Associated registers

Register CXFRATT replaces IBNGRP_CXFR which was deleted in BCS23.

Associated logs

There are no associated logs.

Extension registers

CXFRATT2

Register CXFRFAIL

Call transfer failure (CXFRFAIL)

Register CXFRFAIL counts failures to transfer a call for the following reasons:

- The controlling station allows call transfers that are not compatible. The controlling station allows not compatible call transfers to the station with call transfers that the destination allows. The controlling station is an intragroup or extragroup controlling station.
- The call transfer attempt does not have enough supervision on the trunks.

Register CXFRFAIL release history

Register CXFRFAIL was introduced in BCS22.

NA004

The U3WC feature increases Register CXFRFAIL.

BCS32

The Fast Transfer feature increases register CXFRFAIL.

OM group TWCIBN (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CXRRABAN

Call transfer abandoned (CXRRABAN)

Register CXRRABAN increases when the system transfers a call that adandons before one of the following occurs:

- the transferring station answers the call before the recall occurs
- the transferring station answers the call after the recall occurs

This register increases when the system abandons a call over IBN7 lines after a blind transfer recall or camp-on recall.

The call transfer recall timer calls the transferring station again if the station to which the call transfers does not answer.

Register CXRRABAN release history

Register CXRRABAN was introduced in BCS25.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CXRRSUCC

Call transfer recall successful (CXRRSUCC)

Register CXRRSUCC increases when the call transfer recall timer expires before the station to which the call transfers answers. The call transfer recall timer also expires during the recall process.

This register also increases when a blind transfer recall or camp-on recall occurs for a call over IBN7.

The call transfer recall timer recalls the transferring station if the station to which the call transfers fails to answer.

Register CXRRSUCC release history

Register CXRRSUCC was introduced in BCS25.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TWCATT

Three-way calling attempts (TWCATT)

Register TWCATT counts attempts to initiate the Three-way Calling feature in a customer group.

Register TWCATT release history

Register TWCATT was introduced in BCS22.

BCS32

The Fast Transfer feature increases register TWCATT.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TWCATT2

Register TWCFAIL

Three-way calling failures (TWCFAIL)

Register TWCFAIL is inactive.

OM group TWCIBN (continued)

Register TWCFAIL release history

Register TWCFAIL was introduced in BCS22.

Associated registers

There are no associated registers.

BCS32

The Fast Transfer feature increases register TWCFAIL.

Associated logs

The system generates FTR138 when an agent uses, initiates, or attempts to initiate a feature. An agent is a line, a trunk, or an attendant console.

Extension registers

There are no extension registers.

Register TWCOVFL

Three-way call overflow (TWCOVFL)

Register TWCOTWVFL counts failures to obtain a feature database or a three-port conference circuit.

When failure to obtain a circuit occurs, the system gives the user the no service circuit (NOSC) treatment. When failure to obtain a feature database occurs, the system gives the user the no software resources (NOSR) treatment.

If this count is high, operating company personnel must make more conference circuits available for three-way calling. To make more conference circuits available, the operating company personnel decreases parameter TOPS_THRESHOLD in table OFCENG. This creates a balance between three-way calling and TOPS use of three-port conference circuits.

Register TWCOVFL release history

Register TWCOVFL was introduced in BCS22.

NA004

The U3WC feature increases register TWCOVFL.

BCS32

The Fast Transfer feature increases register TWCOVFL.

Associated registers

When register TWCOVFL counts a failure to obtain a feature database, the EXTOM_EXTOVFL parameter increases.

Associated logs

The system generates FTR138 when an agent that initiates, or attempts to initiate a feature is given treatment. An agent is a link, a trunk or an attendent console.

Extension registers

There are no extension registers.

OM group TWCPOTS

OM Description

Three-way calling in the POTS environment (TWCPOTS)

The OM group TWCPOTS contains four registers that count both attempts and failures to initiate a three-way call.

The OM group TWCPOTS determines how often the system uses Three-way Calling feature. The OM group TWCPOTS determines if the system correctly supplies hardware and software resources.

Release history

The OM group TWCPOTS was introduced in BCS20.

Registers

The OM group TWCPOTS registers appear on the MAP terminal as follows:

```
TWCPATT          TWCPOVFL          TWCPDENY          TWCPABDN
```

Group structure

The OM group TWCPOTS provides one tuple for each office.

Key field:
There is no key field.

Info field:
There is no info field.

Associated OM groups

OM group TWCPOTS pegs OM group CF3P after a 3-port circuit request.

Associated functional groups

The following functional group associates with OM group TWCPOTS:

- All DMS offices with the POTS Three-way Calling feature provide TWCPOTS.

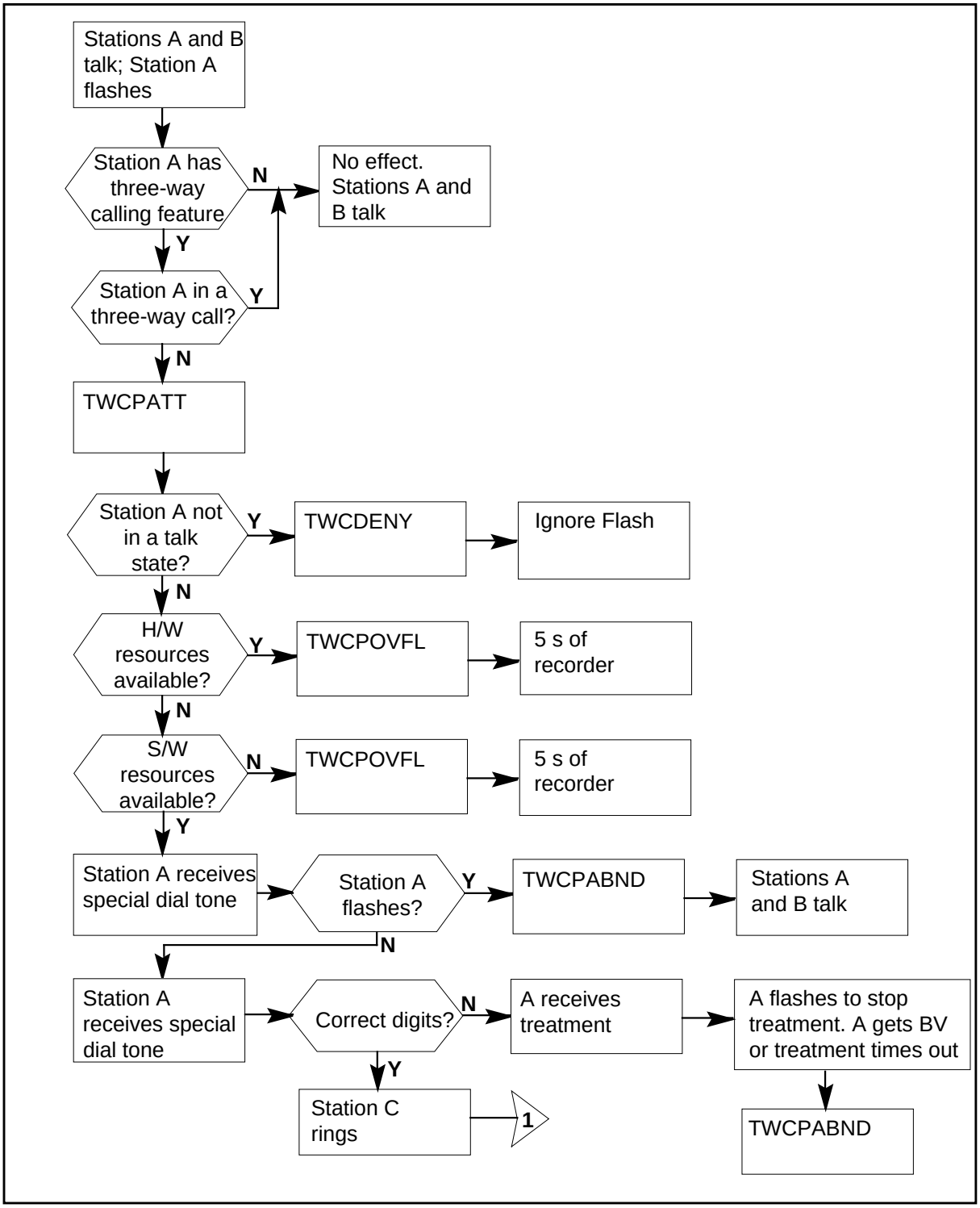
Associated functionality codes

The associated functionality codes for OM group TWCPOTS appear in the following table:

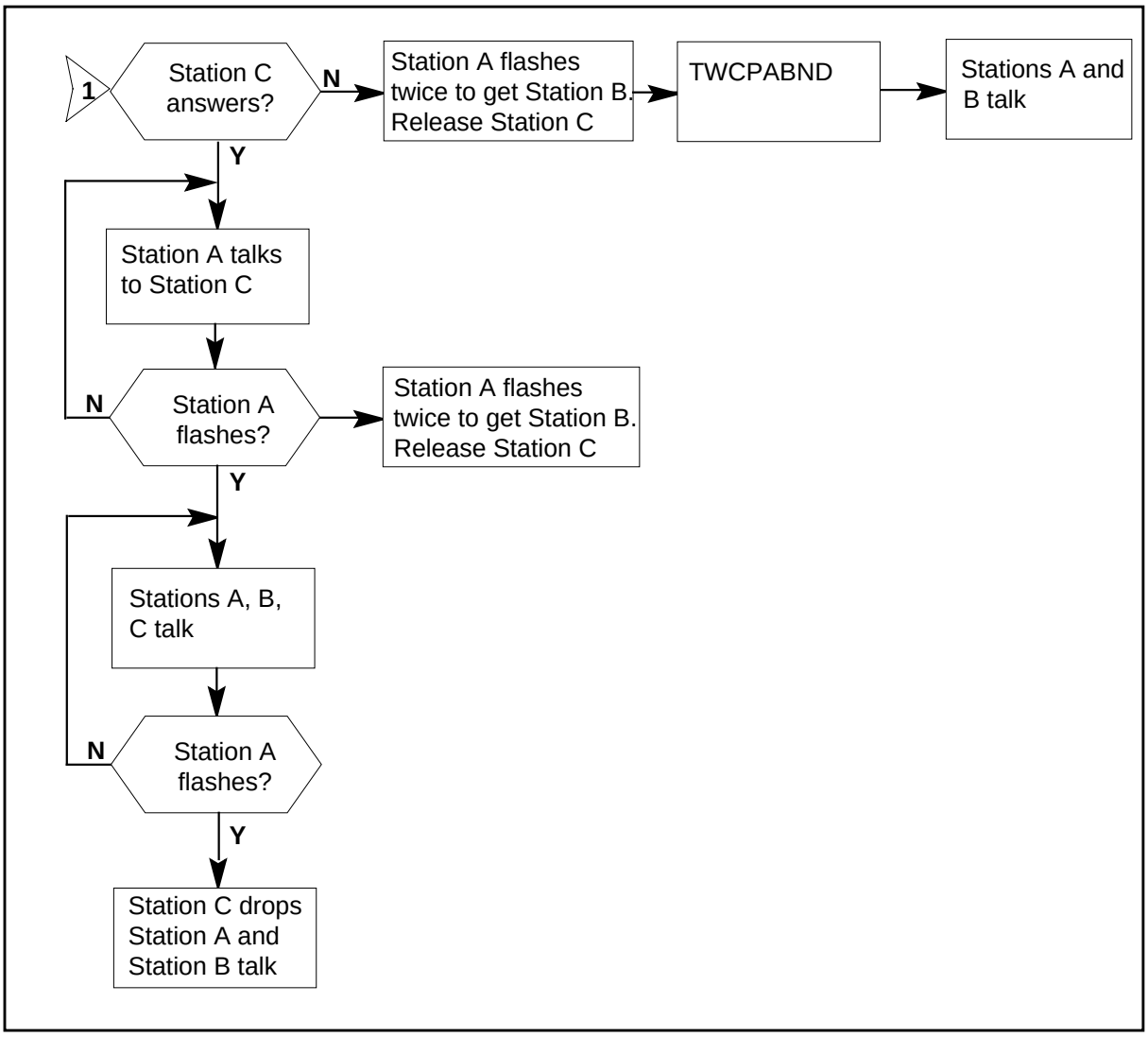
Functionality	Code
Vertical Services I	NTX020AC
Vertical Services I	NTX020AD

OM group TWCPOTS (continued)

OM group TWCPOTS registers: Three-way call function



OM group TWCPOTS registers: Three-way call function (continued)



Register TWCPABDN

Register Three-way call attempt abandoned (TWCPABDN)

Register TWCPABDN increases for each abandoned three-way call.

The system abandons a call when the caller flashes to return to the original call, or when a party goes on hook. The caller can abandon a call at any time between special dial tone and the conferencing of all three parties.

OM group TWCPOTS (continued)

Register TWCPABDN release history

Register TWCPABDN was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TWCPATT

Register Attempt to three-way call (TWCPATT)

Register TWCPATT increases when a line flashes to activate the three-way calling feature. A call waiting flash occurs when the line that flashes has the call waiting option (CWT) and a third party waits. Three-way calling is not possible under these conditions.

Register TWCPATT release history

Register TWCPATT was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TWCPDENY

The caller is not in a talk state, three-way calling fails (TWCPDENY)

Register TWCPDENY counts three-way call attempts that fail because the calling party is not in a talk state.

Register TWCPDENY release history

Register TWCPDENY was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TWCPOVFL

Failure of three-way call attempt, lack of hardware or software resources (TWCPOVFL)

Register TWCPOVFL counts attempts to start a three-way call that fail because one of the following resources is not available:

- port_perm_blk
- network connection
- call condense block
- twc_ext_blocks
- CF3P ports

A special dial tone is not present. The original two-party call continues.

Register TWCPOVFL release history

Register TWCPOVFL was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

None

Extension registers

There are no extension registers.

OM group U3WC

OM description

Three-way calling - usage sensitive (U3WC)

The OM group U3WC measures:

- the number of attempts made to use the U3WC feature
- the number of U3WC requests where a conference is established and the add-on party answered (true conference)
- the number of U3WC requests where a conference is not established but the add-on party answered (consultation)

Release history

The OM group U3WC was introduced in NA004.

Registers

The OM group U3WC registers appear on the MAP terminal as follows:

```
U3WCATT     U3WCCONF        U3WCCONS
```

Group structure

The OM group U3WC provides one tuple for each office.

Key field:
none

Info field:
none

Parameter NO_OF_FTR_DATA_BLKS in table OFCENG specifies the number of data blocks necessary for this feature.

Associated OM groups

The OM group TWCIBN. OM group U3WC pegs OM group CF3P after a 3-port circuit request.

Associated functional groups

The IBN Integrated Business Network functional group associates with OM group U3WC.

Associated functionality codes

The functionality codes for the OM group U3WC appear in the following table.

Functionality	Code
Three-way calling - usage sensitive	RES00012

OM group U3WC registers

Tables 1 and 2 list the conditions that cause a U3WC register to increase.

Note: In these tables, party A is the user of the U3WC feature. Party B is the party that party A put on hold with a switch hook flash. Party C is the add-on party.

U3WC registers pegged after the user flashes for the first time (Sheet 1 of 2)

EVENT(occurring immediately following the first flash)	Office Parameter U3WC_FLASH_ONLY= Y	Office parameter U3WC_FLASH_ONLY= N
Party A dials the U3WC access code followed by a valid DN.	There is no register increase	Register U3WCATT increase
Party A dials the U3WC access code followed by a partial DN and receives the correct treatment.	There is no register increase	Register U3WCATT increase
Party A dials the U3WC access code followed by an invalid DN and receives the correct treatment.	There is no register increase	Register U3WCATT increase
Party A dials the U3WC access code and waits for timeout and treatment.	There is no register increase	Register U3WCATT increase
Party A dials the U3WC access code followed by an invalid access code (access code is not entered in the correct translator).	There is no register increase	Register U3WCATT increase
Party A dials the U3WC access code followed by a valid access to activate another feature.	There is no register increase	There is no register increase

OM group U3WC (continued)

U3WC registers pegged after the user flashes for the first time (Sheet 2 of 2)

EVENT(occurring immediately following the first flash)	Office Parameter U3WC_FLASH_ONLY= Y	Office parameter U3WC_FLASH_ONLY= N
Party A dials a valid DN	Register U3WCATT increases	There is no register increase
Party A dials a partial DN and receives the correct treatment	Register U3WCATT increases	There is no register increase
Party A dials an invalid DN and receives the correct treatment	Register U3WCATT increases	There is no register increase
Party A waits for a timeout and treatment	Register U3WCATT increases	There is no register increase
Party A dials an invalid access code (the access code is not entered in the correct translator)	Register U3WCATT increases	There is no register increase
Party A dials a valid access code to activate the corresponding feature	There is no register increases	There is no register increase

U3WC registers pegged for each call termination state

State of U3WC call on termination of conference	Registers pegged
Conference is established and party C answered	Register U3WCATT and U3WCCONF increases
Conference is not established but party C answered	Register U3WCATT and U3WCCONS increases
Party C did not answer	Register U3WCATT increases

Register U3WCATT

Three-way calling - usage sensitive call attempts (U3WCATT)

Register U3WCATT counts the attempts to use the U3WC call feature.

Note: The contents of register U3WCATT can appear as follows:

U3WCATT (U3WCCONF + U3WCCONS)

Register U3WCATT release history

Register CXFRATT was introduced in NA004.

Associated registers

Register U3WCCONF

Register U3WCCONS

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register U3WCCONF

Three-way calling - usage sensitive total conferences established (U3WCCONF)

Register U3WCCONF counts the U3WC call feature attempts where the add-on party answers and a conference is established.

Note: The contents of register U3WCCONF can appear as follows:

U3WCCONF £ (U3WCATT - U3WCCONS)

Register U3WCCONF release history

Register U3WCCONF was introduced in NA004.

Associated registers

Register U3WCATT

Register U3WCCONS

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group U3WC (end)

Register U3WCCONS

Three-way calling - usage sensitive total consultations (U3WCCONS)

Register U3WCCONS counts the U3WC call feature attempts where the add-on party answers but a conference is not established.

Note: You can express the contents of register U3WCCONS as follows:

U3WCCONS £ (U3WCATT - U3WCCONF)

Register U3WCCONS release history

Register U3WCCONS was introduced in NA004.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group UCDGRP

OM description

Uniform call distribution (UCD)

The OM group UCDGRP registers provide information on the use of the integrated business network (IBN) feature Uniform Call Distribution (UCD). The OM group UCD permits calls in IBN systems to distribute evenly to a number of specified 500/2500 stations acting as UCD agents.

If all these stations are busy, new calls queue and ringing tone returns to the caller. If the predicted delay exceeds a customer preset threshold, a recorded announcement follows.

When a station becomes idle, the station accepts the first call in the incoming queue.

Release history

The OM group UCDGRP was introduced before BCS20.

NA007

Register UCDUSAGE was introduced.

BCS22

Register UCDBLOCK was introduced.

Registers

The OM group UCDGRP registers appear on the MAP terminal as follows:

UCDOFFR	UCDANSR	UCDDFLCT	UCDABNDN
UCDNS	UCDPRMPT	UCDBLOCK	UCDUSAGE

Group structure

The OM group UCDGRP provides one tuple for each UCD group.

Key field:
UCDGRP_NUMBER. The system assigns a name to the

UCD group in field UCDNAME in table UCDGRP.

Info field:
There is no info field.

OM group UCDGRP (continued)

Parameter FTRQSIZE in table OFCENG specifies the size of the feature.

Parameter FTRQ8WAREAS in table OFCENG specifies the number of eight-word areas the feature requires.

Parameter FTRQAGENTS in table OFCENG specifies the number of agents that can have this feature at a time.

Parameter NO_OF_FTR_CONTROL_BLKS in table OFCENG specifies the number of control blocks this feature requires.

Parameter NO_OF_FTR_DATA_BLKS in table OFCENG specifies the number of data blocks this feature requires.

Parameter NUMPERMEXT in table OFCENG specifies the number of permanent extension blocks this feature reserves.

Associated OM groups

There are no associated OM groups.

Associated functional groups

The following functional groups associate with the OM group UCDGRP:

- IBN Integrated Business Network
- 500/2500 Business Set

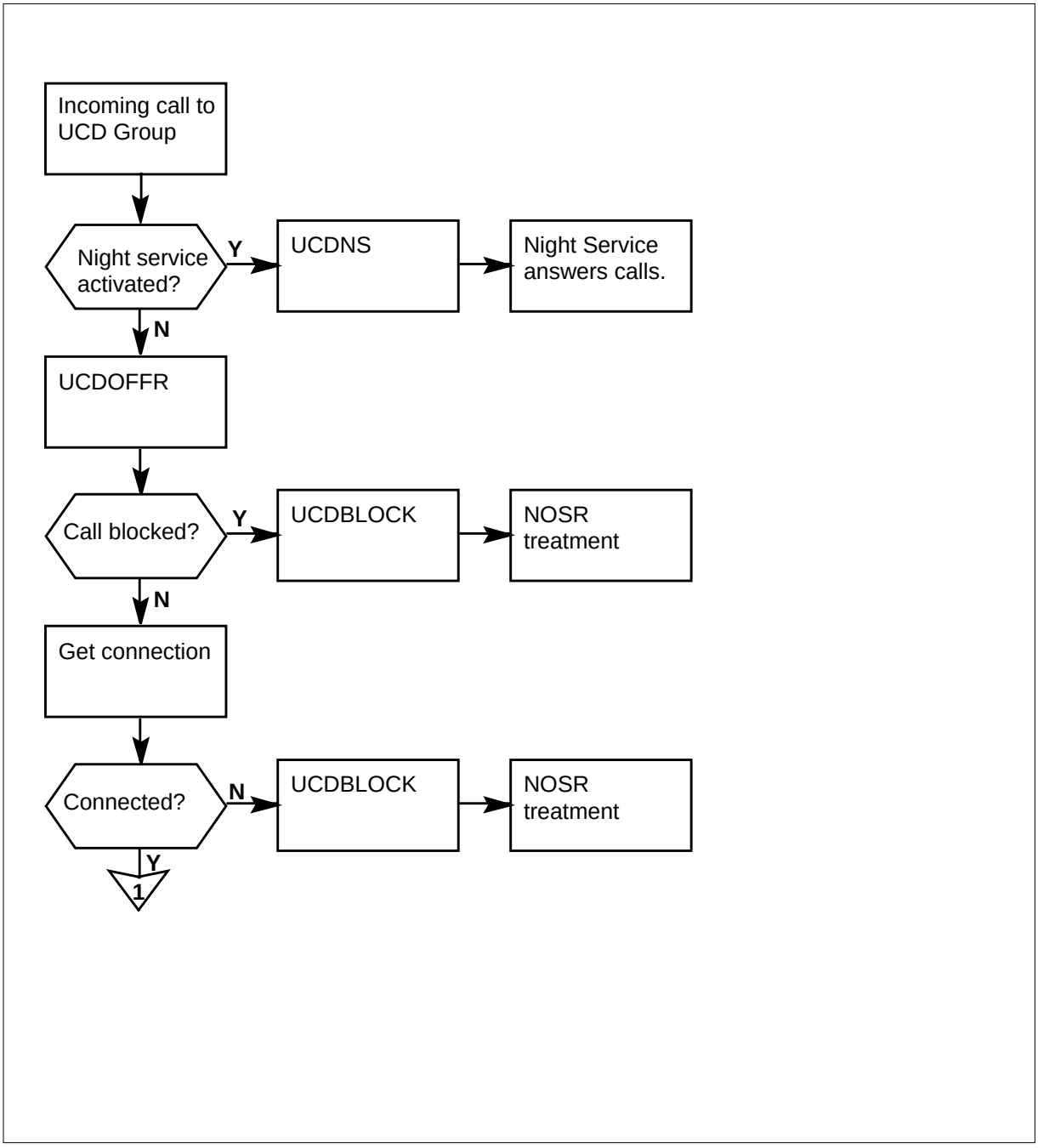
Associated functionality codes

The associated functionality codes for the OM group UCDGRP appear in the following table:

Functionality	Code
IBN Enhanced Business Services	NTX101AA

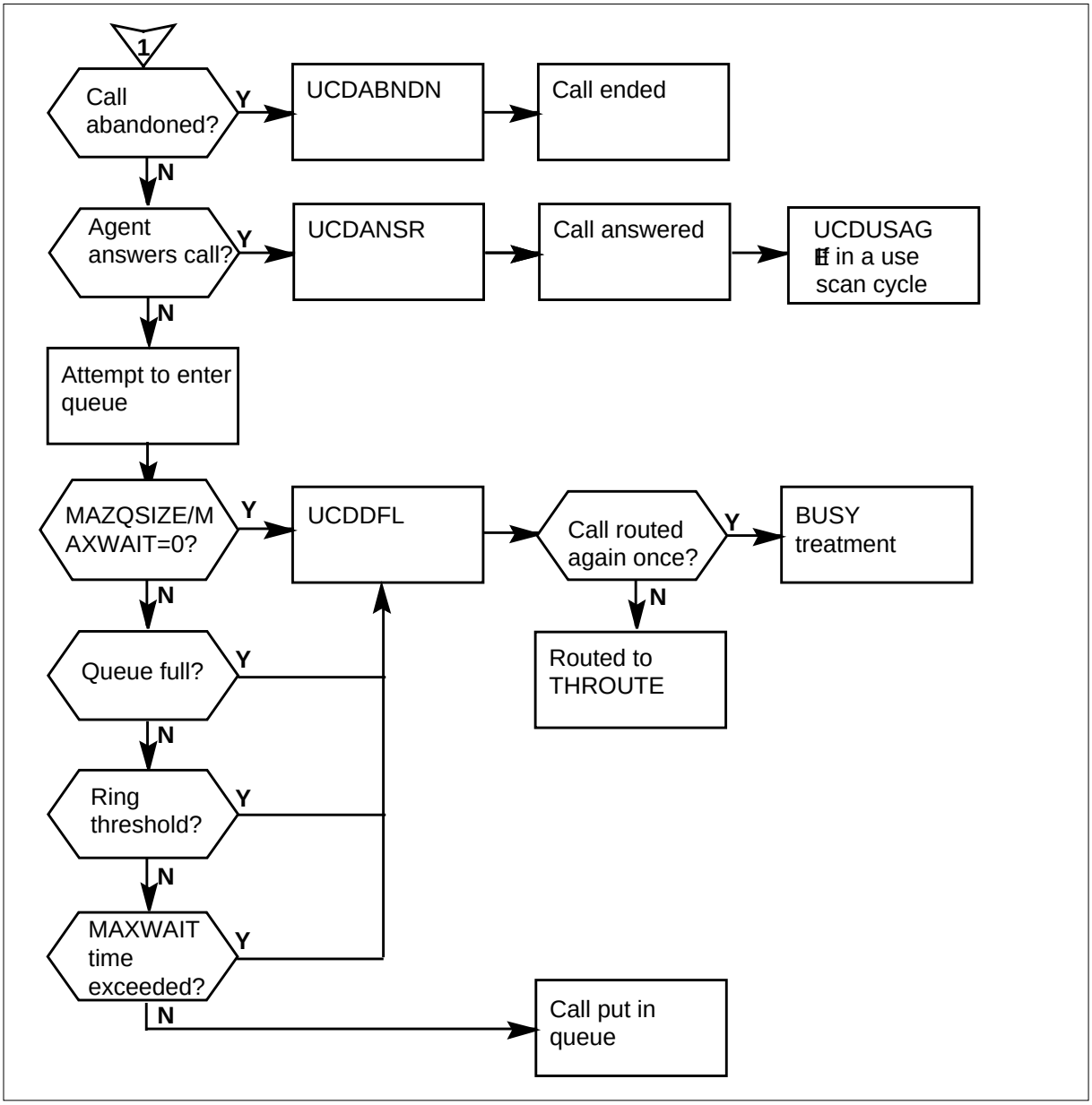
OM group UCDGRP (continued)

OM group UCDGRP registers



OM group UCDGRP (continued)

the OM group UCDGRP registers (continued)



Register UCDABNDN

Uniform call distribution abandoned (UCDABNDN)

Register UCDABNDN increases when a customer abandons a call while in a queue for attachment to a uniform call distribution (UCD) agent. This register also increases when the customer terminates a call to a UCD agent before the agent answers.

Register UCDABNDN release history

Register UCDABNDN was introduced before BCS20.

Associated registers

Register UCDANSR counts answered calls that the system uses uniform call distribution to distribute.

Register UCDDFLCT counts calls that the system deflects while the calls attempt to reach a UCD agent. The system deflects the calls because the number of calls exceeds maximum call queue size field (MAXCQSIZ). The system also deflects the calls if the number of calls exceeds the maximum waiting time field (MAXWAIT). Both of these fields appear in table UCDGRP.

Register UCDOFFR counts calls that qualify for each uniform call distribution group.

UCDOFFR = UCDANSR + UCDDFLCT + UCDABNDN

Note: The above validation formula is correct if UCDGRP reports for a 24 h transfer period.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register UCDANSR

Uniform call distribution answered (UCDANSR)

Register UCDANSR counts answered calls that the system uses uniform call distribution to distribute.

Register UCDANSR release history

Register UCDANSR was introduced before BCS20.

Associated registers

Register UCDABNDN counts calls the subscriber abandons while the calls wait to connect to a UCD agent. This register also counts calls that terminate to a UCD agent before the agent answers.

Register UCDDFLCT counts calls that attempt to contact a UCD agent. The system deflects the calls because the number of calls exceeds maximum call

OM group UCDGRP (continued)

queue size field (MAXCQSIZ). The system also deflects the calls because the number of calls exceeds the maximum waiting time field (MAXWAIT). Both of these fields appear in table UCDGRP.

Register UCDOFFR counts calls that qualify for each uniform call distribution group.

UCDOFFR = UCDANSR + UCDDFLCT + UCDABNDN

Note: The above validation formula is correct if UCDGRP reports for a 24 h transfer period.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register UCDBLOCK

Uniform call distribution blocked (UCDBLOCK)

Register UCDBLOCK counts incoming UCD calls that the system blocks for one of the following reasons:

- the system cannot provide the correct treatment to the calling party
- the system cannot establish network connection between the incoming call and the agent

Register UCDBLOCK release history

Register UCDBLOCK was introduced in BCS22.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register UCDDFLCT

Uniform call distribution deflected (UCDDFLCT)

Register UCDDFLCT increases when a call attempts to contact a uniform call distribution (UCD) agent. The system deflects the calls because the number of calls exceeds one of the following:

- UCD ringing threshold
- maximum queue length
- maximum allowed number of calls in the queue

Fields MAXQSIZE and MAXWAIT in table UCDGRP specify the maximum queue size and maximum number of calls in the queue. The field UCDRNGTH in table UCDGRP field specifies UCD ringing threshold.

The call forwards to the route that field THROUTE in table UCDGRP specifies. If the UCD group has an overflow threshold route to its own UCD directory number (DN), the call receives busy treatment. If the UCD group has an overflow threshold route to another UCD DN, the system routes the call to the new UCD group. The system can only route a call again one time. If the system does not route a call again, the call receives treatment.

Register UCDDFLCT release history

Register UCDDFLCT was introduced before BCS20.

Associated registers

Register UCDABNDN counts abandoned subscriber calls while the calls wait to connect to a UCD agent. This register also increases if a call terminates to a UCD agent before the agent answers.

Register UCDANSR counts answered calls that the system uses uniform call distribution to distribute.

Register UCDOFFR counts calls that qualify for each uniform call distribution group.

UCDOFFR = UCDANSR + UCDDFLCT + UCDABNDN

Note: The above validation formula is correct if UCDGRP reports for a 24 h transfer period.

Associated logs

The system generates IBN125 when the system deactivates a UCD agent. The system deactivates the agent because the agent does not answer a call after a specified number of consecutive calls. The system abandons or routes the caller again when the threshold timer expires.

OM group UCDGRP (continued)

Extension registers

There are no extension registers.

Register UCDNS

Uniform call distribution night service (UCDNS)

Register UCDNS increases when a call attempts to reach a uniform call distribution (UCD) group that has Night Service.

The call forwards to the route that field NSROUTE in table UCDGRP specifies.

Register UCDNS release history

Register UCDNS was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register UCDOFFR

Uniform call distribution offered (UCDOFFR)

Register UCDOFFR counts calls that qualify for each uniform call distribution group.

This register does not count calls that qualify for Night Service.

Register UCDOFFR release history

Register UCDOFFR was introduced before BCS20.

Associated registers

Register UCDABNDN counts calls the subscriber abandons while they are in queue for connection to a UCD agent. This register also counts calls that terminate to a UCD agent before the agent answers.

Register UCDANSR counts answered calls that the system uses uniform call distribution to distribute.

Register UCDDFLCT counts calls that attempt to reach a UCD agent. The system deflects the calls because the number of calls exceeds maximum call queue size field (MAXCQSIZ). The system also deflects these calls because the calls exceed the maximum waiting time field (MAXWAIT). Both of these fields appear in table UCDGRP.

UCDOFFR = UCDANSR + UCDDFLCT + UCDABNDN

Note: The above validation formula is correct if UCDGRP reports for a 24 h transfer period.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register UCDPRMPT

Uniform call distribution preempted (UCDPRMPT)

Register UCDPRMPT increases when a priority call preempts a call that waits for a uniform call distribution (UCD) agent.

Register UCDPRMPT release history

Register UCDPRMPT was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register UCDUSAGE

Uniform call distribution usage (UCDUSAGE)

The system scans each UCD group every 100 s. The system records the UCD group use. The UCDUSAGE register increases by the number of busy UCD agents the system detects in the sample time.

Register UCDUSAGE release history

Register UCDUSAGE was introduced in NA007.

OM group UCDGRP (end)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group UNBCDC

OM description

The UNBCDC OM group records measurements on USNBD CDCs.

Release history

NA012 introduced OM group UNBCDC.

Registers

OM group UNBCDC registers display on the MAP terminal as follows.

```
> omshow UNBCDC active

UNBCDC

CLASS: ACTIVE
START: 1998/08/08 08:00:00 SAT; STOP: 1998/08/08 08:08:41
FRI;
SLOW SAMPLES            4 ; FAST SAMPLES            35 ;

        KEY (UNB_CDC_SVC_TYPE)
            CDCGEN     CDCSNT

     1
                3           2
     2
                0           0
     3
                0           0
```

Group structure

OM group UNBCDC provides up to 200 tuples, one for each defined CDC

Key field:

CDC Index Number, a number in the range 1 - 200, assigned at the CDC ADD command

Info field:

None

OM group UNBCDC (continued)

Related OM groups

OM groups MPCLINK2 and MPCLINK3 provide information on the traffic in links 2 and 3 respectively of the multiprotocol controller on which the CDC messages are transmitted.

Related functional groups

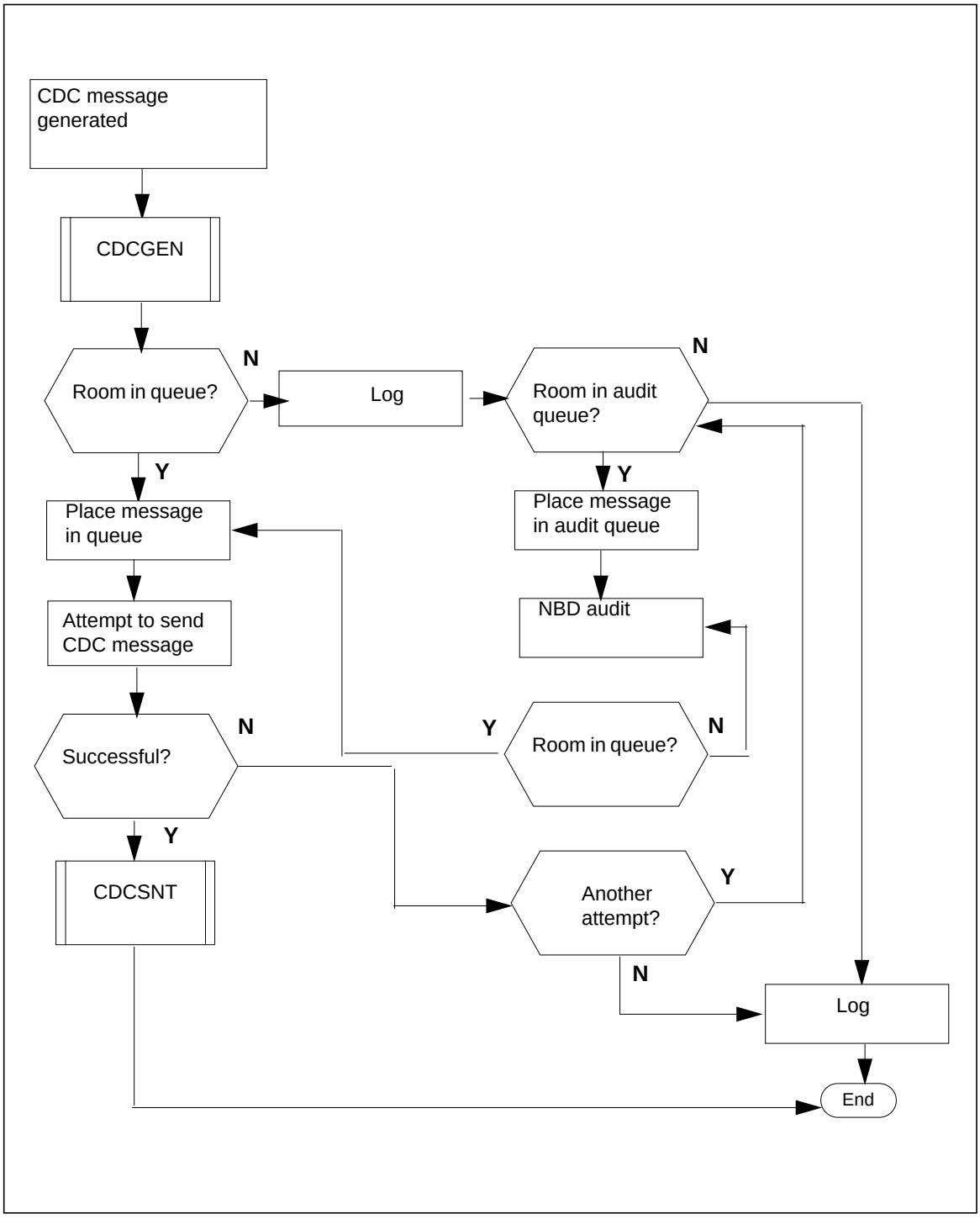
The Network Broadcast Delivery (NBD) functional group is associated with OM group UNBCDC.

Related functionality codes

The table that follows lists the functionality name and codes related to OM group UNBCDC.

Functionality	Code
NBD	NBD00003

OM group UNBCDC registers



OM group UNBCDC (continued)

Register CDCGEN

Register CDCGEN counts the number of CDC messages generated by USNBD.

Register CDCGEN release history

NA012 introduced register CDCGEN.

Related registers

CDCSNT, the number of messages successfully sent is used with CDCGEN to calculate the percentage of generated messages actually sent using the following formula:

$$\frac{\text{CDCSNT[i]}}{\text{CDCGEN[i]}} \times 100\ \% = \text{Percent of requested CDC messages transmitted}$$

where i is the index number of a particular CDC

The number of messages lost within an OM collection is defined by the following formula:

$$\text{CDCGEN} - \text{CDCSNT} = \text{Number of CDC messages lost}$$

Note: It is possible that during a given period CDCGEN may exceed CDCSNT even though no messages are lost. This condition occurs because the messages may be sent during the next OM collection period. CDCGEN may also be smaller than CDCSNT which may occur when messages generated during an earlier OM collection period were successfully sent during the current OM collection period.

Related logs

UNB301

Extension registers

None

Register CDCSNT

Register CDCSNT counts the number of USNBD CDC messages sent successfully over the X.25 link.

Register CDCSNT release history

NA012 introduced register CDCSNT.

Related registers

CDCGEN

Related logs

UNB301

Extension registers

None

OM group UNBMISC

OM description

The UNBMISC OM group records miscellaneous USNBD data, including the number of monitored calls and the number of monitored calls for which monitoring was stopped because USNBD capacity is exceeded or because of non-monitored features.

Release history

NA012 introduced OM group UNBMISC.

Registers

OM group UNBMISC registers display on the MAP terminal as follows.

```
> omshow UNBMISC active

UNBMISC

CLASS: ACTIVE
START: 1998/08/08 08:00:00 SAT; STOP: 1998/08/08 08:08:41
FRI;
SLOW SAMPLES            16 ; FAST SAMPLES           152;


         UNBMCALL   RELNMON   RELCPCTY

 0         50            1          0
```

Group structure

OM group UNBMISC provides up to 200 tuples, one for each office.

Key field:
None

Info field:
None

Related OM groups

None

Related functional groups

The Network Broadcast Delivery (NBD) functional group is associated with OM group UNBCDC.

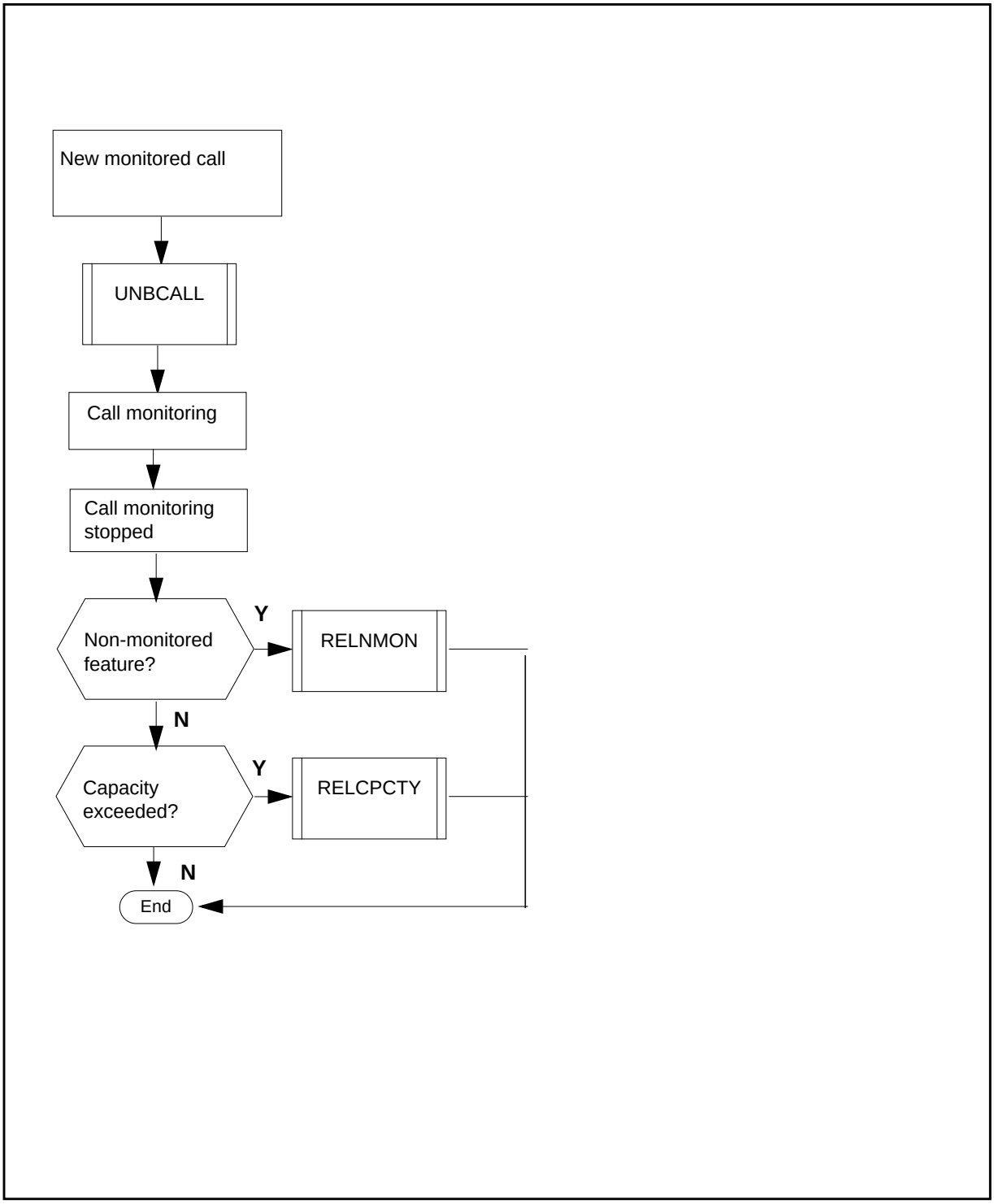
Related functionality codes

The table that follows lists the functionality name and codes related to OM group UNBMISC.

Functionality	Code
NBD	NBD00003

OM group UNBMISC (continued)

OM group UNBMISC registers



Register RELCPCTY

Register RELCPCTY counts the number of monitored calls for which monitoring was stopped because USNBD capacity was exceeded.

Register RELCPCTY release history

NA012 introduced register RELCPCTY.

Related registers

UNBMCALL, the number of USNBD monitored calls is used to RELCPCTY to calculate the percentage of calls for which montoring was stopped because USNBD capacity is exceeded, using the following formula:

$$\frac{\text{RELCPCTY}}{\text{UNBMCALL}} \times 100\ \% = \text{Percent of calls released because capacity is exceeded}$$

Note: It is possible that during a given period RELCPCTY may exceed UNBMCALL even though no messages are lost. This condition occurs because the messages may be sent during the next OM collection period.

Related logs

None

Extension registers

None

Register RELNMON

Register RELNMON counts the number of calls for which monitoring was stopped because of non-monitorable features, including the following;.

- the subject uses a feature not monitored by USNBD
- the call is redirected an USNBD does not support this type of redirection, and cannot follow the call
- the subject is on a 2FR line, and is currently talking to the mate 2FR subscriber

Register RELNMON release history

NA012 introduced register RELNMON.

Related registers

None

OM group UNBMISC (continued)

Related logs

None

Extension registers

None

Register UNBMCALL

Register RELCPCTY counts the number of calls monitored by USNBD.

UNBMCALL is used to determine the real-time impact monitored calls make on the DMS switch. The impact is determined using the following formula:

$$\frac{\text{UNBMCALL} \times \text{average} \times \text{nmsubj}}{\text{omcp} \times \text{ncmpu} \times \text{nasurv}} \times \quad = \text{Percent of absolute increase in CPU capacity}$$

where

average
is the average time added to monitored calls in milliseconds (the value 7.37 should be used in this formula)

nmsub
is the total number of monitored subjects on the DMS switch.

Note: Since there may be up to five surveillances on the same subject, the value of NMSUBJ may be up to five less than the value of NASURV.

omcp
is the OM collection period in milliseconds, usually 15 min (900 000 ms), 30 min (1 800 000 ms), or 60 min (3 600 000 ms)

ncmcpu
is the number of CM CPUs on the switch (always 1 unless an XA-Core processor is used).

nasurv
is the total number of active surveillances on the switch.

Register UNBMCALL release history

NA012 introduced register UNBMCALL.

Related registers

RELCPCTY and RELNMON.

Related logs

None

Extension registers

None

OM group USAGSAMP-U.S. only

OM Description

Usage sampler for engineering and administrative data acquisition system classes (USAGSAMP-U.S. only)

The OM group USAGSAMP counts fast and slow scans during an accumulation period for an engineering and administrative data acquisition system (EADAS) OM class.

The system sends the OM group USAGSAMP information to an AT&T EADAS office. The system sends the information in response to a request from the EADAS computer to the DMS.

Release history

Only the OM group USAGSAMP-U.S. was introduced before BCS20.

Registers

The OM group USAGSAMP-U.S. registers appear on the MAP terminal as follows:

```
SLOWSAMP          FASTSAMP
```

Group structure

The OM group USAGSAMP-U.S. provides one tuple for each office.

Key field:
None

Info field:
None

Associated OM groups

There are no associated OM groups.

Associated functional groups

The AT&T EADAS office functional group associates with OM group USAGSAMP-U.S..

Associated functionality codes

The functionality codes for OM group USAGSAMP-U.S. appear in the following table.

Functionality	Code
1A/1B EADAS Interface	NTX218AA

Register FASTSAMP

Fast sample usage count

FASTSAMP counts fast scans (scan rate: 10 seconds) performed during an accumulation period.

Register FASTSAMP release history

FASTSAMP was created prior to BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs

Extension registers

There are no extension registers.

Register SLOWSAMP

Slow sample usage count

SLOWSAMP counts slow scans performed during an accumulation period. The slow scan rate is 100 s.

Register SLOWSAMP release history

SLOWSAMP was created prior to BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group USAGSAMP-U.S. only (end)

Extension registers

There are no extension registers.

OM group UTR

OM description

Universal tone receiver (UTR)

The UTR registers of OM group UTR count and record call processing requests from lines and trunks to UTRs. The registers of this OM group also record the activities in request-wait queues.

Digitone and multifrequency calls request UTRs for digit collection. If a UTR is not available, the system places the request in a queue until a channel is available. A UTR has 32 channels and is in an XMS-based peripheral module (XPM).

The receiver attachment delay recording (RADR) measurements calculates the time the request for a UTR channel remains in the queue. Registers UTRRADA, UTRLDLYP, and UTRUDLYP report these measurements.

The XPM counts the UTR registers and transfers the registers to the central control. This procedure occurs every 5 min. Under heavy load conditions, this process can take more than 5 min. To provide an accurate example of a 10 s time period, the system updates register UTRSAMPL when 10 s passes. A time stamp at the call processing level determines when 10 s passes. The system moves the time stamp forward 10 s. The system adds the count of UTRs in use and the current count of UTR requests in the queue to UTRTRU and UTRQOCC.

Release history

The OM group UTR was introduced before BCS20.

CSP18/SN05

Extension register UTRSZR2 was introduced.

BCS35

To count calls, the registers use:

- subscriber carrier module-100 urban (SMU)
- subscriber carrier module-100S (SMS)
- the ISDN Meridian business service (MBS) SMU

The info field includes the ADNUM field from table LTCINV.

BCS33

When you set office parameter OMINERLANGS to Y, convert registers UTRQOCC and UTRTRU from CCS to deci-erlangs before the count

appears. Use the OMSHOW command on the ACTIVE class to display the registers. UTRRADA is changed.

BCS29

Current registers count network switched ISDN calls.

BCS21

Registers UTRTRU and UTRQOCC changed.

BCS20

Registers UTRRADA, UTRUDLYP, and UTRLDLYP were introduced. Registers UTRSAMPL, UTRTRU, and UTRQOCC changed.

Registers

The OM group UTR registers appear on the MAP terminal as follows:

```
UTRSZRS     UTROVFL     UTRQOCC     UTRQOVFL
UTRQABAN    UTRTRU      UTRSAMPL    UTRRADA
UTRLDLYP    UTRUDLYP    UTRSZRS2
```

Group structure

The OM group UTR provides one tuple for each XPM that has a UTR card. Tables LTCINV and RCCINV specify these XPMs.

Key field:
There is no key field.

Info field:
UTR_OMINFO

This information field contains:

- the peripheral module (PM) name and number
- the fields defined
- the number of UTRs that have software for each PM

The field refers to each UTR tuple by a number. Field ADNUM in tables LTCINV and RCCINV identifies peripherals. The field uses the ADNUM identification that corresponds to the UTR equipped peripheral to refer to each

UTR tuple. When the ADNUM field does not identify peripherals, the system numbers the UTR tuples from 0 to a maximum of 255.

- Tuple RADTESTC contains the total of the UTRRADA registers for all XPMs with UTR.
- Tuple RADLDLYP contains the total of the UTRLDLYP registers for all XPMs with UTR.
- Tuple RADUDLYP contains the total of the UTRUDLYP registers for all XPMs with UTR.

When the operating company sets office parameter OMINERLANGS in table OFCOPT to Y (yes), usage registers UTRQOCC and UTRTRU store in deci-erlangs.

Associated OM groups

There are no associated OM groups.

Associated functional groups

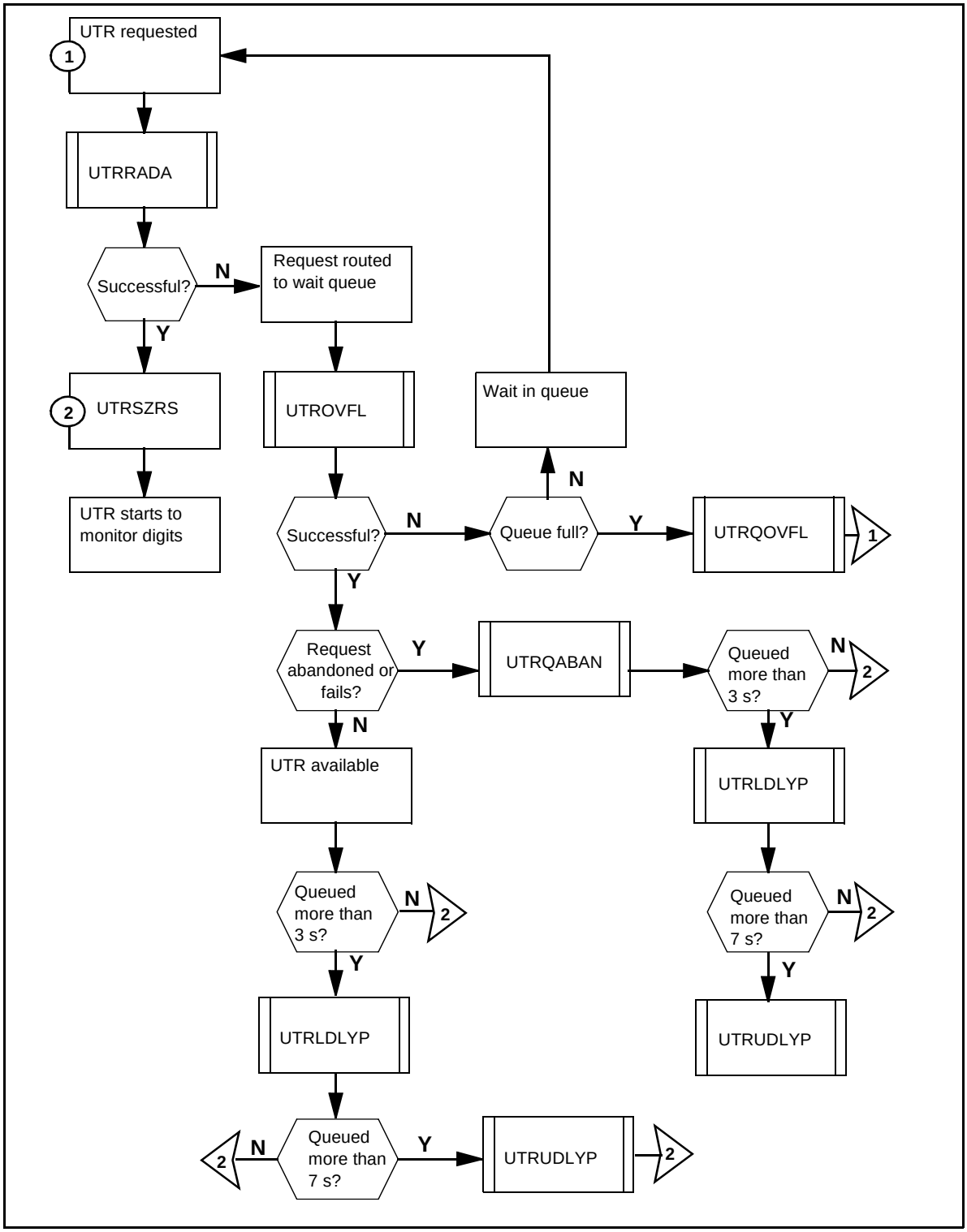
The functional group Universal Tone Receiver associates with OM group UTR.

Associated functionality codes

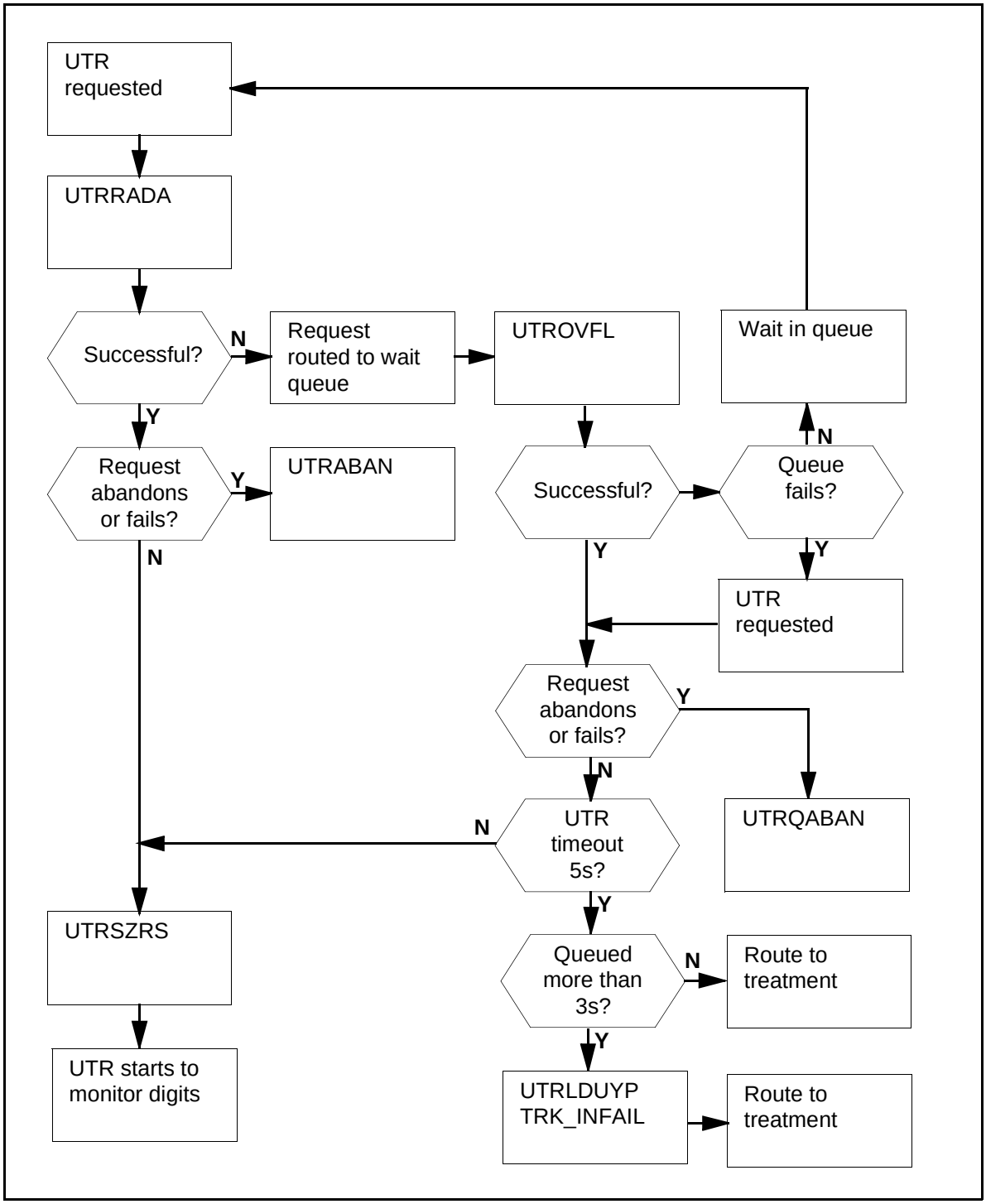
The associated functionality codes for OM group UTR appear in the following table.

Functionality	Code
Universal Tone Receiver (Domestic)	NTX269AA
Intl Univ Tone Rcvr Support	NTX479AA
Intl Call Processing System	NTX485AA

OM group UTR registers: line origination



OM group UTR registers: trunk origination



Register UTRLDLYP

UTR lower delay peg (UTRLDLYP)

Register UTRLDLYP counts requests for a UTR that are in the queue for a minimum of 3 s. Register UTRLDLYP counts the requests that the system denies and requests the system abandons after a minimum of 3 s.

Registers UTRUDLYP and UTRLDLYP increase when a request waits in the queue for a minimum of 7 s. When the system denies the request for a UTR, both registers increase.

Register UTRLDLYP release history

Register UTRLDLYP was introduced in BCS20.

BCS29

Register UTRLDLTP increases for each network-switched integrated services digital network (ISDN) call.

Associated registers

Registers UTRUDLYP and UTRLDLYP increase when a request waits in the queue for a minimum of 7 s. If the system denies the request for a UTR, both registers increase.

Associated logs

There are no associated logs.

Register UTROVFL

UTR overflow (UTROVFL)

Register UTROVFL increases if receivers are not available when the system requests a receiver. The count in this register represents the number of attempts to secure a position in the wait queue for the UTR. The number of calls that enter the queue equals UTROVFL subtracted from UTRQOVFL.

Register UTROVFL release history

Register UTROVFL was introduced in BCS20.

BCS29

Register UTROVFL increases for each network-switch integrated services digital network (ISDN) call.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register UTRQABAN

UTR queue abandon (UTRQABAN)

Register UTRQABAN increases when the system deletes a UTR request from the wait queue. The system deletes the request because the calling party abandons the call or because the incoming trunk times out.

Register UTRQABAN release history

Register UTRQABAN was introduced in BCS20.

BCS29

Register UTRQABAN increases for each network-switched integrated services digital network (ISDN) call.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register UTRQOCC

UTR queue occupied (UTRQOCC)

Register UTRQOCC is a usage register. The scan rate is 10 s. This register records if requests for UTRs are present in the wait queue.

The operating company can set office parameter OMINERLANGS in table OFCOPT to Y. When OMINERLANGS is set to Y, the system stores the register count in deci-erlangs, not in hundred call seconds (CCS).

Register UTRQOCC release history

Register UTRQOCC was introduced before BCS20.

BCS33

When you set office parameter OMINERLANGS to Y, you convert the usage count from CCS to deci-erlangs before the count appears. Use the OMSHOW command on the ACTIVE class to display the usage count. The value in the active registers remains in CCS. Convert the values to deci-erlang before the values transfer from ACTIVE to HOLDING. The values remain in deci-erlangs in the HOLDING class.

BCS29

Register UTRQOCC increases for each network-switched integrated services digital network (ISDN) call.

BCS21

Register changed to count in deci-erlangs or CCS.

Associated registers

Register UTRQOCC represents the accumulated total of UTR requests in the queue when UTRSAMPL increases.

Associated logs

There are no associated logs.

Register UTRQOVFL

UTR queue overflow (UTRQOVFL)

Register UTRQOVFL increases when the system denies a UTR request a position in the wait queue because the queue is full. The wait queue can hold the same number of requests as the number of available UTR channels. Each UTR has 32 channels.

Register UTRQOVFL release history

Register UTRQOVFL was introduced before BCS20.

BCS29

Register UTRQOVFL increases for each network-switched integrated services digital network (ISDN) call.

Associated registers

Register TRK_INFAIL increases when register UTRQOVFL increases.

Associated logs

There are no associated logs.

Register UTRRADA

UTR receiver attachment delay (UTRRADA)

Register UTRRADA counts requests for a UTR channel on which the system performs receiver attachment delay record (RADR) measurements. Not all call processing and diagnostic requests are in the queue. The system cannot include these requests in the UTRRADA register.

The number of RADR calls correspond to the number of requests that call processing makes for UTR channels.

Register UTRRADA release history

Register UTRRADA was introduced in BCS20.

BCS29

Register UTRRADA increases for each network-switched integrated services digital network (ISDN) call.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register UTRSAMPL

UTR samples (UTRSAMPL)

Register UTRSAMPL increases when the system takes samples of queue occupancy and the number of receivers in use. The system takes these samples every 10 s. The call processing time stamp determines when 10 s passes.

When the system takes a sample, the system adds the current count of UTRs in use to UTRTRU. The system also adds the current count of UTR requests in the queue to UTRQOCC.

Register UTRSAMPL release history

Register UTRSAMPL was introduced before BCS20.

BCS29

Register UTRSAMPL increases for each network-switched integrated services digital network (ISDN) call.

Associated registers

Register UTRTRU represents the total UTRs in use when register UTRSAMPL increases.

Register UTRQOCC represents the total UTR requests in the queue when register UTRSAMPL increases.

Associated logs

There are no associated logs.

Register UTRSZRS

UTR seizures (UTRSZRS)

Register UTRSZRS increases each time the system supplies a UTR to a call in response to a request.

Register UTRSZRS release history

Register UTRSZRS was introduced before BCS20.

BCS29

Register UTRSZRS increases for each network-switched integrated services digital network (ISDN) call.

Associated registers

There are no associated registers.

Extension registers

UTRSZRS2

Associated logs

There are no associated logs.

Register UTRTRU

UTR available (UTRTRU)

Register UTRTRU is a usage register. The scan rate is 10 s. This register records the number of universal tone receivers in use.

The operating company can set the office parameter OMINERLANGS in table OFCOPT to Y. When OMINERLANGS is Y, the system stores the register counts in deci-erlangs. The system does not store the register counts in hundred call seconds (CCS).

Register UTRTRU release history

Register UTRTRU was introduced before BCS20.

BCS33

When the operating company sets the office parameter OMINERLANGS to Y, the usage count changes from CCS to deci-erlangs before the count appears. The OMSHOW command on the ACTIVE class displays the usage count. The value in the active registers remains in CCS. The values convert to deci-erlang before the values transfer from ACTIVE to HOLDING. The values remain in deci-erlangs in the HOLDING class.

BCS29

Register UTRTRU increases for each network-switched integrated services digital network (ISDN) call.

Associated registers

Register UTRTRU represents the total UTRs in use when register UTRSAMPL increases.

Associated logs

There are no associated logs.

Register UTRUDLYP

UTR upper delay peg (UTRUDLYP)

Register UTRUDLYP counts requests for a UTR that are in the queue for a minimum of 7 s. The register also counts the number of requests that the system denies. This register also counts requests that the system abandoned after a minimum of 7 s.

Register UTRLDLYP increases when a request waits in the queue for a minimum of 7 s. If the system denies the request for a UTR, registers UTRUDLYP and UTRLDLYP increase.

Register UTRUDLYP release history

Register UTRUDLYP was introduced in BCS20.

BCS29

Register UTRUDLYP increases for each network-switched integrated services digital network (ISDN) call.

Associated registers

Registers UTRUDLYP and UTRLDLYP increase when a request waits in the queue for a minimum of 7 s. If the system denies the request for a UTR, both registers increase.

Associated logs

There are no associated logs.

OM group VFGIWUSE

OM description

Virtual facility group INWATS usage (TFGIWUSE)

The OM group VFGIWUSE provides information on the use of virtual facility group (VFG) trunks by inward wide-area telephone service (INWATS) calls.

The OM group VFGIWUSE contains two peg registers. The registers count:

- attempts to place an INWATS call to a VFG trunk
- attempts to place an INWATS call that the system blocks because a VFG trunk is not available

The OM group VFGIWUSE contains one usage register that records when a VFG trunk is busy on a INWATS call.

The OM group VFGIWUSE is only available in a switch that has the ACD-MGMT Rep 2-Way Data Stream package (NTX991AD). The ACD applications use VFGIWUSE often.

In ACD applications, the following guidelines provide an accurate evaluation of ACD VFG facilities levels:

- Only one customer group must use a VFG at a time.
- A VFG must only belong to one ACD group at a time.
- A VFG must only belong to one subpool and one pool at a time.
- When a VFG user uses another VFG, both the user and the VFG in use must belong to the same ACD group.

Release history

The OM group VFGIWUSE was introduced in BCS30.

Registers

The OM group VFGIWUSE registers appear on the MAP terminal as follows:

```
VFGIWATT        VFGIWOVF        VFGIWTRU
```

Group structure

The OM group VFGIWUSE provides one tuple for each key.

Key field:
VIRTUAL_FACILITY_GROUP is the virtual facility group key as defined in table VIRTGRPS. The name is a one to six character user-defined name.

Info field:
VFGINFO_TYPE is the number of members in the virtual facility group. The range is from zero to 2047.

Associated OM groups

The OM group VFGUSAGE provides information on the use of virtual facility groups (VFG).

Associated functional groups

The ACD functional group associates with OM group VFGIWUSE.

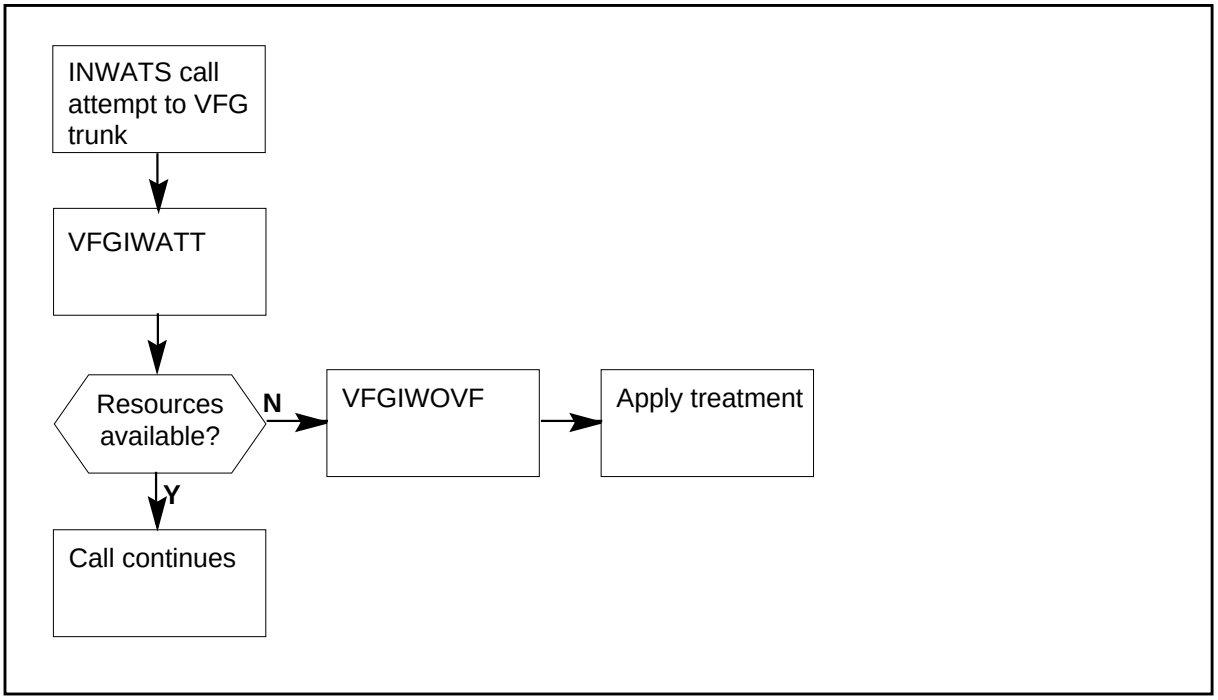
Associated functionality codes

The associated functionality codes for OM group VFGIWUSE appear in the following table.

Functionality	Code
ACD-MGMT Rep 2-Way Data Stream	NTX991AD

OM group VFGIWUSE (continued)

OM group VFGIWUSE registers



Register VFGIWATT

Virtual facility group INWATS call attempts (VFGIWATT)

Register VFGIWATT counts attempts to place an INWATS call to a virtual facility group (VFG) trunk.

Register VFGIWATT release history

Register VFGIWATT was introduced in BCS30.

Associated registers

The following formulas are only correct when other incoming call attempts do not use VFG trunks except INWATS call attempts.

Register VFGUSAGE_VFGTOTAL counts outgoing call attempts.

The total number of outgoing call attempts = VFGUSAGE_VFGTOTAL - VFGIWUSE_VFGIWATT

Register VFGIWOVF counts attempts to place an INWATS call that the system blocks. The system blocks the call because the virtual facility group trunk is not available.

The VFGUSAGE_VFGBLCKD increases when an outgoing call attempt fails because resources are not available.

Register VFGUSAGE_VFGLSCBL counts calls that the line screening code blocked. This register also counts calls that the alternate line screening code assigned to the virtual facility group blocked.

The total number of successful outgoing call attempts = (VFGUSAGE_VFGTOTAL - (VFGUSAGE_VFGBLCKD + VFGUSAGE_VFGLSCBL)) - (VFGIWUSE_VFGIWATT - VFGIWUSE_VFGIWOVF)

The total number of successful INWATS call attempts = VFGIWUSE_VFGIWATT - VFGIWUSE_VFGIWOVF

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VFGIWOVF

Virtual facility group INWATS call attempts blocked (VFGIWOVF)

Register VFGIWOVF counts attempts to place an INWATS call that the system blocked. The system blocks the attempts because the virtual facility group (VFG) trunk is not available.

Register VFGIWOVF release history

Register VFGIWOVF was introduced in BCS30.

Associated registers

The following formulas are only correct when other incoming call attempts do not use VFG trunks except INWATS call attempts.

Register VFGIWATT counts attempts to place an INWATS call to a virtual facility group trunk.

Register VFGUSAGE_VFGBLCKD increases when an outgoing call attempt fails because no resources are available.

Register VFGUSAGE_VFGLSCBL counts calls that the line screening code blocked. This register also counts calls that the alternate line screening code assigned to the virtual facility group blocked.

OM group VFGIWUSE (end)

VFGUSAGE_VFGTOTAL counts outgoing call attempts.

The total number of successful outgoing call attempts =

(VFGUSAGE_VFGTOTAL - (VFGUSAGE_VFGBLCKD + VFGUSAGE_VFGLSCBL)) - (VFGIWUSE_VFGIWATT - VFGIWUSE_VFGIWOVF)

The total number of successful INWATS call attempts =

VFGIWUSE_VFGIWATT - VFGIWUSE_VFGIWOVF

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VFGIWTRU

Virtual facility group INWATS usage count (VFGIWTRU)

Register VFGIWTRU is a usage register. The scan rate is 10 s. Register VFGIWTRU records if a virtual facility group (VFG) trunk is busy on an INWATS call.

Register VFGIWTRU release history

Register VFGIWTRU was introduced in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group VFGUSAGE

OM description

Virtual facility group usage (VFGUSAGE)

The OM group VFGUSAGE provides information on the use of virtual facility groups (VFG).

The VFG replaces a loop-around trunk group to implement inward wide-area telephone service (INWATS) and outward wide-area telephone service (OUTWATS) calls. The VFG is always answered, if the system does not block the VFG. The system can block the VFGs but, unlike trunk groups, the VFGs cannot fail because there is no circuit.

A VFG can have the following assigned:

- a line screening code (LSC)
- corresponding intercept treatment
- an alternate line screening code (ALSC)
- corresponding intercept treatment
- a customer group

The VFG access control (VAC) allows users to limit access to a VFG in a customer group. When the user activates VAC, access to a controlled VFG by a station or incoming trunk group can change. This change depends on the datafill of the OPTIONS field in table VIRTGRPS.

If VAC applies to a VFG and an alternate route exists, the system attempts to complete the call. The system uses the alternate route to complete the call. If the VFG with VAC active is the last or only choice in the route list, then flexible intercept treatment can apply.

Release history

The OM group VFGUSAGE was introduced before BCS20.

Registers

The OM group VFGUSAGE registers appear on the MAP terminal as follows:

VFGTOTAL	VFGBLCKD	VFGLSCBL	VFGTRU

OM group VFGUSAGE (continued)

Group structure

The OM group VFGUSAGE provides one tuple for each virtual facility group.

Key field:
VIRTUAL_FACILITY_GROUP is one to six characters as defined in table VIRTGRPS.

Info field:
VFGINFO_TYPE is the number of members in the virtual facility group.

Associated OM groups

There are no associated OM groups.

Associated functional groups

The IBN Integrated Business Network functional group associates with OM group VFGUSAGE.

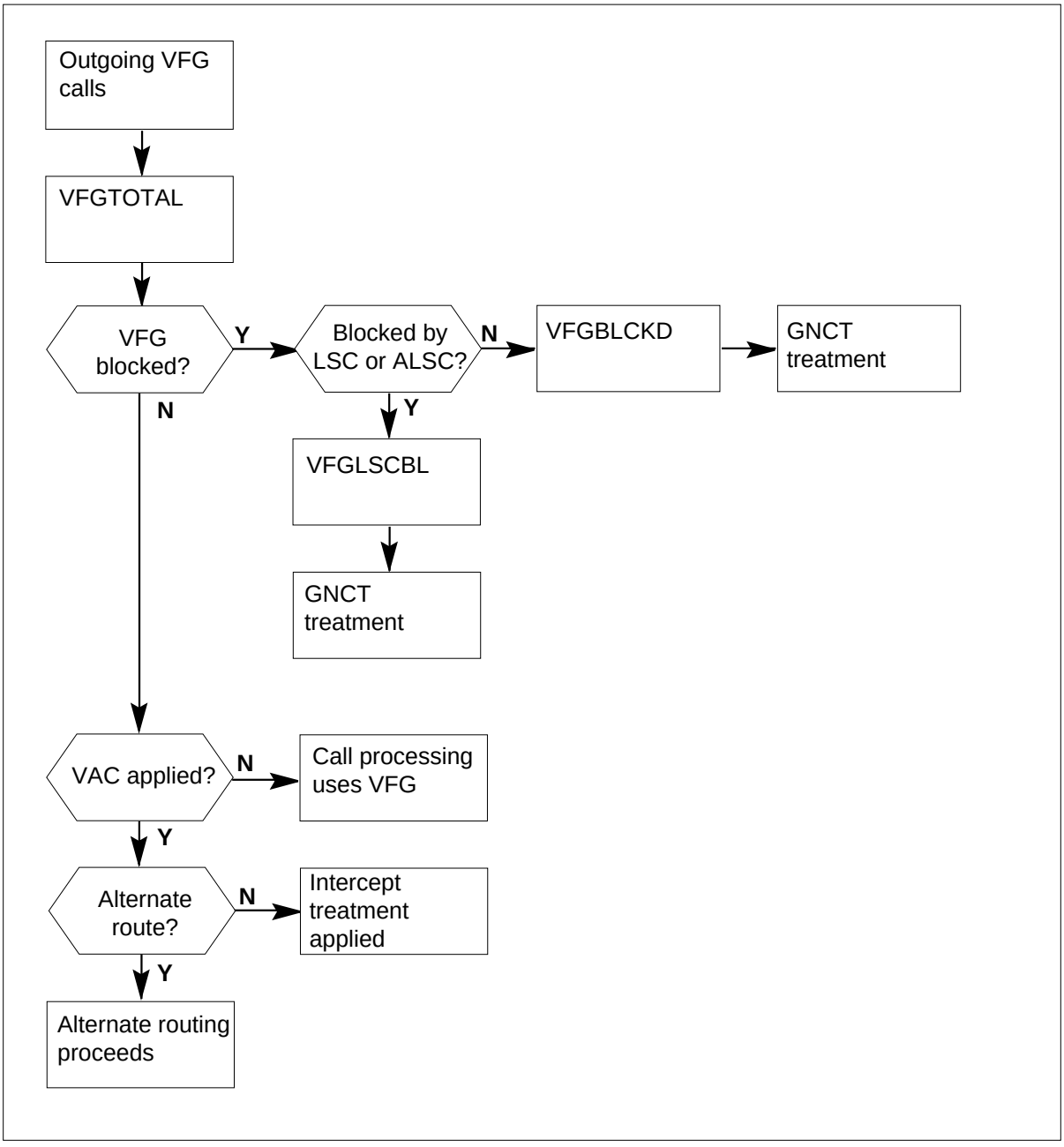
Associated functionality codes

The associated functionality codes for OM group VFGUSAGE are in the following table.

Functionality	Code
IBN—Virtual Facility Groups	NTX112AA

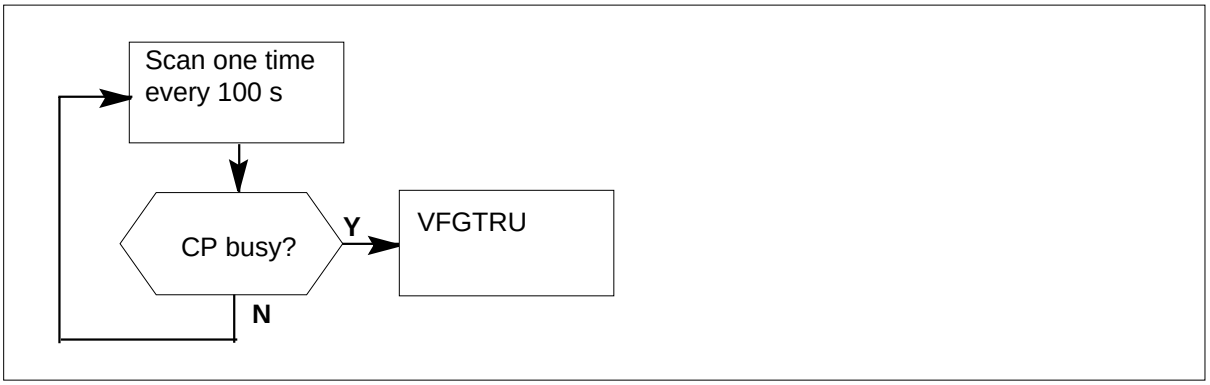
OM group VFGUSAGE (continued)

OM group VFGUSAGE registers



OM group VFGUSAGE (continued)

OM group VFGUSAGE usage registers



Register VFGBLCKD

Virtual facility group (VFG) blocked (VFGBLCKD)

Register VFGBLCKD increases when an outgoing call attempt fails because resources are not available.

The call attempt goes to generalized no circuit (GNCT) treatment. If the count in this register is often large, increase the number of members in the VFG.

Register VFGBLCKD release history

Register VFGBLCKD was introduced before BCS20.

Associated registers

Register TRK_NOVFLATB increases when an outgoing call attempt fails because resources are not available in the trunk group.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VFGLSCBL

Virtual facility group (VFG) line screening code blockages (VFGLSCBL)

Register VFGLSCBL counts calls blocked by one of the following:

- line screening code (LSC)
- alternate line screening code (ALSC) for the VFG and the associated LSC

The restrictions are for the VFG and the LSC that associates with the call in field OPTIONS in table VIRTGRPS.

For this register to increase, the system must assign one of the following options to the VFG:

- VFGLSC and VFGALSC in table VIRTGRPS
- CUSTGRP in table CUSTSTN
- VAC in table FNMAP

Register VFGLSCBL release history

Register VFGLSCBL was introduced before BCS20.

Associated registers

VFGTOTAL - (VFGFBLCKD + VFGLSCBL) = successful outgoing call attempts

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VFGTOTAL

Virtual facility group (VFG) total (VFGTOTAL)

Register VFGTOTAL counts outgoing call attempts.

Register VFGTOTAL release history

Register VFGTOTAL was introduced before BCS20.

Associated registers

VFGTOTAL - (VFGBLCKD + VFGLSCBL) = successful outgoing call attempts

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VFGTRU

Virtual facility group (VFG) traffic busy usage (VFGTRU)

OM group VFGUSAGE (end)

Register VFGTRU is a usage register. The scan rate is 100 s. Register VFGTRU records if VFGs are call processing busy.

This register indicates an over-used or under-used VFG. A high or low level of use over time can indicate that you must change the number of VFG members.

Register VFGTRU release history

Register VFGTRU was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group VOW

OM description

Virtual Office Worker (VOW). This OM group tracks the use of VOW functionality.

Release history

SN07 (DMS)

OM group VOW introduced by feature A00002011.

Registers

The following registers exist within this OM group: INPASS, INFAIL, OUTPASS, OUTFAIL, CINPASS, CINFAIL, COUTPASS, COUTFAIL, AUDPASS, AUDFAIL, PCCPASS, PCCFAIL, ROUTPASS, ROUTFAIL.

OM group VOW registers display on the MAP terminal as follows.

```
INPASS   INFAIL  OUTPASS   OUTFAIL  CINPASS  CINFAIL

COUTPASS  COUTFAIL  PCCPASS  PCCFAIL  AUDPASS  AUDFAIL

ROUTPASS  ROUTFAIL
```

Group structure

The OM group ILR provides one tuple.

Key field:
CUSTOMER_GROUP

Info field:
NIL_TYPE_ID

Associated OM groups

None

Associated functional groups

None

Associated functionality codes

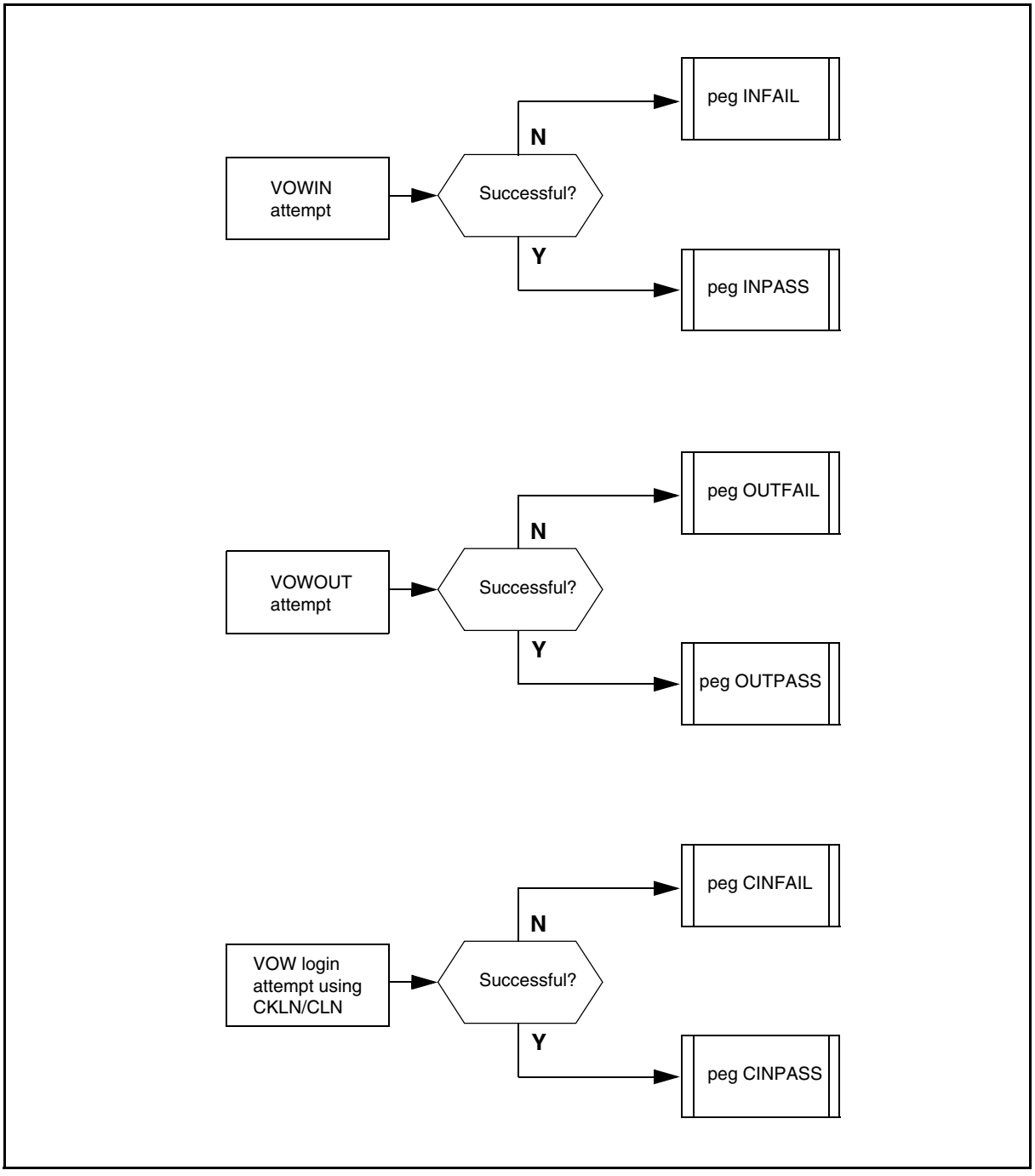
None

Register flowcharts

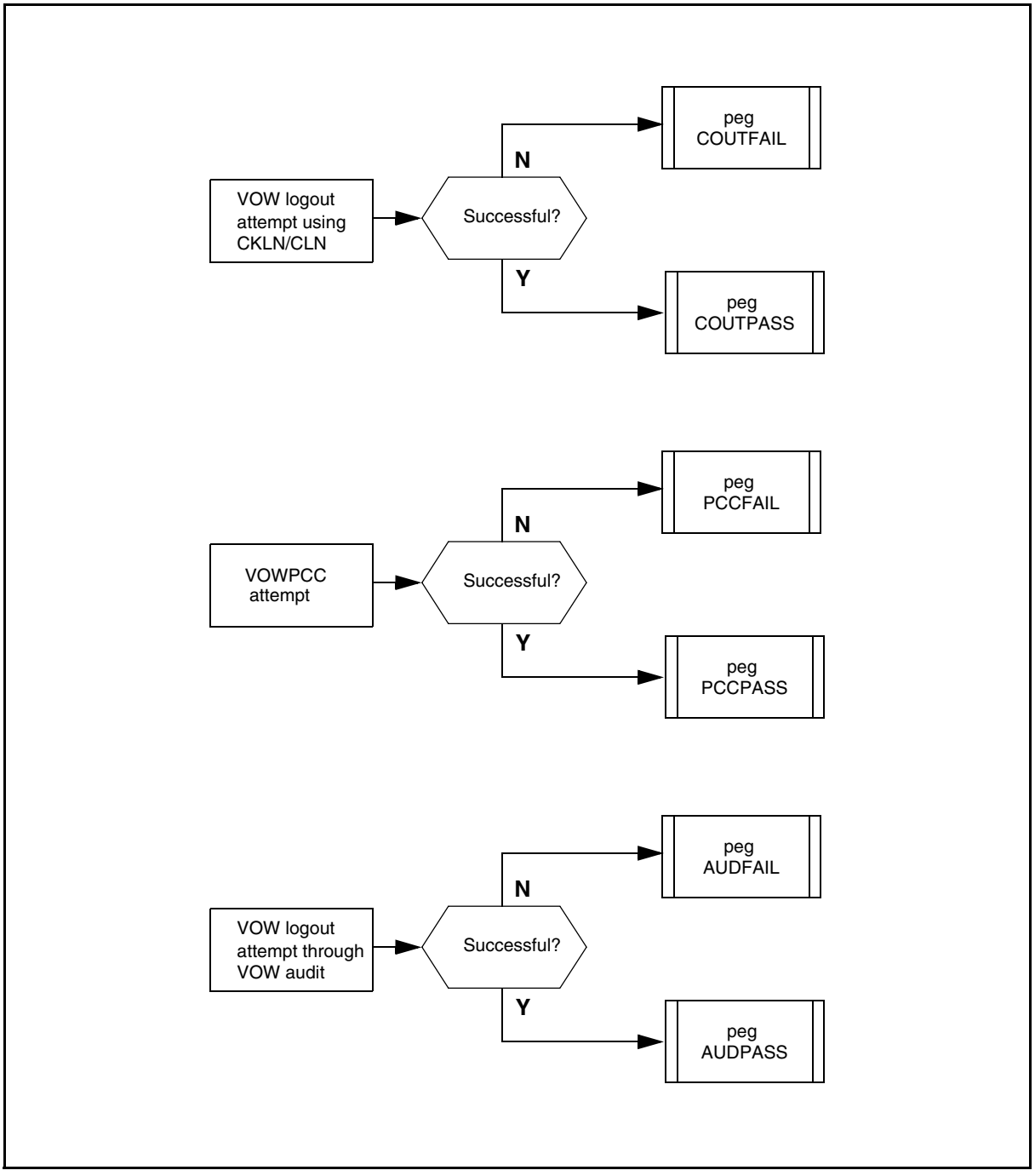
The figures that follow show flowcharts for the VOW registers.

OM group VOW (continued)

Flowchart for registers INPASS, INFAIL, OUTPASS, OUTFAIL, CINPASS, and CINFAIL

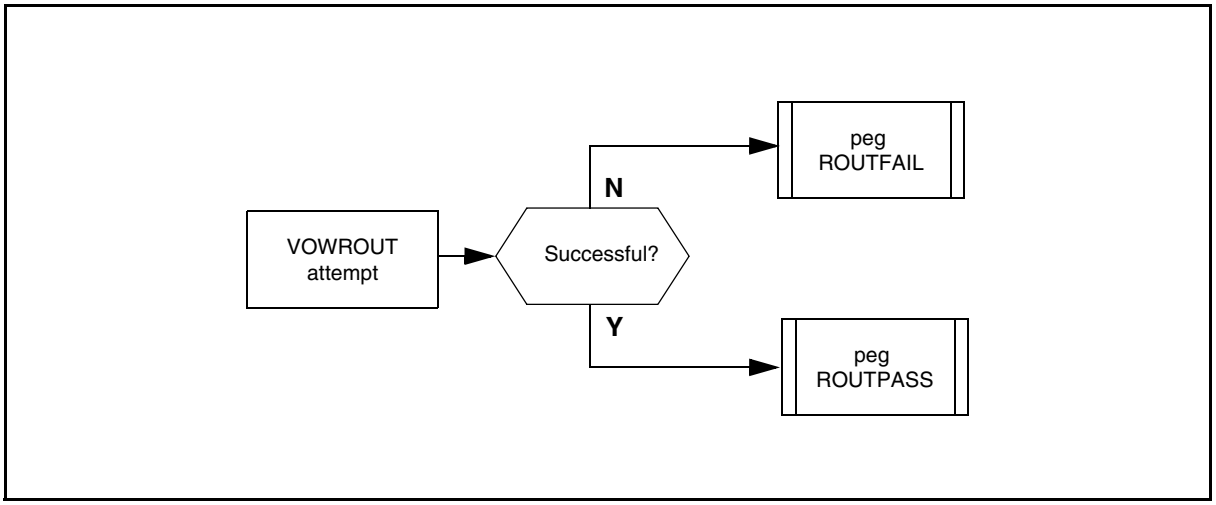


Flowchart for registers COUTPASS, COUTFAIL, PCCPASS, PCCFAIL, AUDPASS and AUDFAIL



OM group VOW (continued)

Flowchart for registers ROUTPASS and ROUTFAIL



Register INPASS

VOW login (VOWIN) attempt pass.

Register description

INPASS is pegged for a successful VOWIN attempt.

Associated registers

INFAIL

Validation formula

INPASS + INFAIL = Total VOWIN attempts.

Associated logs

Log VOW501 is generated when a successful VOWIN attempt occurs.

Register INPASS release history

Register INPASS is created in SN07 (DMS).

Register INFAIL

VOW login (VOWIN) attempt fail.

Register description

INFAIL is pegged for a failed VOWIN attempt.

Associated registers

INPASS

Validation formula

INPASS + INFAIL = Total VOWIN attempts.

Associated logs

Log VOW502 is generated when a failed VOWIN attempt occurs.

Register INFAIL release history

Register INFAIL is created in SN07 (DMS).

Register OUTPASS

VOW logout (VOWOUT) attempt pass.

Register description

OUTPASS is pegged for a successful VOWOUT attempt.

Associated registers

OUTFAIL

Validation formula

OUTPASS + OUTFAIL = Total VOWOUT attempts.

Associated logs

Log VOW501 is generated when a successful VOWOUT attempt occurs.

Register OUTPASS release history

Register OUTPASS is created in SN07 (DMS).

Register OUTFAIL

VOW logout (VOWOUT) attempt fail.

Register description

OUTFAIL is pegged for a failed VOWOUT attempt.

Associated registers

OUTPASS

Validation formula

OUTPASS + OUTFAIL = Total VOWOUT attempts.

Associated logs

Log VOW502 is generated when a failed VOWOUT attempt occurs.

OM group VOW (continued)

Register OUTFAIL release history

Register OUTFAIL is created in SN07 (DMS).

Register CINPASS

VOW login attempt using CKLN/CLN, pass.

Register description

CINPASS is pegged for a successful VOW login attempt using CKLN/CLN.

Associated registers

CINFAIL

Validation formula

CINPASS + CINFAIL = Total CKLN/CLN login attempts.

Associated logs

Log VOW501 is generated when a successful VOW login using CKLN/CLN occurs.

Register CINPASS release history

Register CINPASS is created in SN07 (DMS).

Register CINFAIL

VOW login attempt using CKLN/CLN, fail.

Register description

CINFAIL is pegged for a failed VOW login attempt using CKLN/CLN.

Associated registers

CINPASS

Validation formula

CINPASS + CINFAIL = Total CKLN/CLN login attempts.

Associated logs

Log VOW502 is generated when a failed VOW login using CKLN/CLN occurs.

Register CINFAIL release history

Register CINFAIL is created in SN07 (DMS).

Register COUTPASS

VOW logout attempt using CKLN/CLN, pass.

Register description

COUTPASS is pegged for a successful VOW logout attempt using CKLN/CLN.

Associated registers

COUTFAIL

Validation formula

COUTPASS + COUTFAIL = Total CKLN/CLN logout attempts.

Associated logs

Log VOW501 is generated when a successful VOW logout using CKLN/CLN occurs.

Register COUTPASS release history

Register COUTPASS is created in SN07 (DMS).

Register COUTFAIL

VOW logout attempt using CKLN/CLN, fail.

Register description

COUTFAIL is pegged for a failed VOW logout attempt using CKLN/CLN.

Associated registers

COUTPASS

Validation formula

COUTPASS + COUTFAIL = Total CKLN/CLN logout attempts.

Associated logs

Log VOW502 is generated when a failed VOW logout using CKLN/CLN occurs.

Register COUTFAIL release history

Register COUTFAIL is created in SN07 (DMS).

Register PCCPASS

VOW password change attempt, pass.

Register description

PCCPASS is pegged for a successful VOW password change (VOWPCC) attempt.

OM group VOW (continued)

Associated registers

PCCFAIL

Validation formula

PCCPASS + PCCFAIL = Total VOW password change attempts.

Associated logs

Log VOW501 is generated when a successful VOW password change occurs.

Register PCCPASS release history

Register PCCPASS is created in SN07 (DMS).

Register PCCFAIL

VOW password change attempt, fail.

Register description

PCCFAIL is pegged for a failed VOW password change (VOWPCC) attempt.

Associated registers

PCCPASS

Validation formula

PCCPASS + PCCFAIL = Total VOW password change attempts.

Associated logs

Log VOW502 is generated when a failed VOW password change occurs.

Register PCCFAIL release history

Register PCCFAIL is created in SN07 (DMS).

Register AUDPASS

VOW logout through VOW audit, pass.

Register description

AUDPASS is pegged for a successful VOW logout through the VOW audit.

Associated registers

AUDFAIL

Validation formula

AUDPASS + AUDFAIL = Total audit logout attempts.

Associated logs

Log VOW501 is generated when a successful logout through the VOW audit occurs.

Log VOW601 is generated when the VOW audit completes.

Register AUDPASS release history

Register AUDPASS is created in SN07 (DMS).

Register AUDFAIL

VOW logout through VOW audit, fail.

Register description

AUDFAIL is pegged for a failed VOW logout through the VOW audit.

Associated registers

AUDPASS

Validation formula

AUDPASS + AUDFAIL = Total audit logout attempts.

Associated logs

Log VOW502 is generated when a failed logout through the VOW audit occurs.

Log VOW601 is generated when the VOW audit completes.

Register AUDFAIL release history

Register AUDFAIL is created in SN07 (DMS).

Register ROUTPASS

VOW remote logout (VOWROUT), pass.

Register description

ROUTPASS is pegged for a successful VOW remote logout.

Associated registers

ROUTFAIL

Validation formula

ROUTPASS + ROUTFAIL = Total VOW remote logout attempts.

OM group VOW (end)

Associated logs

Log VOW501 is generated when a successful VOW remote logout attempt occurs.

Register ROUTPASS release history

Register ROUTPASS is created in SN07 (DMS).

Register ROUTFAIL

VOW remote logout (VOWROUT), fail.

Register description

ROUTFAIL is pegged for a failed VOW remote logout.

Associated registers

ROUTPASS

Validation formula

ROUTPASS + ROUTFAIL = Total VOW remote logout attempts.

Associated logs

Log VOW502 is generated when a failed VOW remote logout attempt occurs.

Register ROUTFAIL release history

Register ROUTFAIL is created in SN07 (DMS).

OM group VPN

OM description

Virtual private network (VPN)

This OM group measures the number of virtual private network (VPN) calls in the DMS switch. The measurements are for service switching point (SSP)-based VPN.

Release history

The OM group VPN was introduced in BCS36.

Functionality was introduced to support interaction of a variety of Meridan Digital Centrex (MDC) features and VPN.

Functionality was introduced to support the following:

- VPN on MDC lines
- VPN on trunks that use Australian telephone user part (ATUP)
- Australian ISDN user part (AISUP) signaling

Registers

The OM group VPN registers appear on the MAP terminal as follows:

```
VPNSCP      VPNALT      VPNSCPOF      VPNSCPOS
VPNCITYW    VPNINTER    VPNINTRA      VPNLCR
VPNDIAL     VPNDPERR    VPNSCPGN      VPNSTDAC
VPNNOTON    VPNPRERR    VPNONRTE      VPNTRERR
```

Group structure

The OM group VPN provides one tuple for each office.

Key field:
There are no key fields.

Info field:
There are no info fields.

Associated OM groups

There are no associated OM groups.

OM group VPN (continued)

Associated functional groups

The following functional groups associate with OM group VPN:

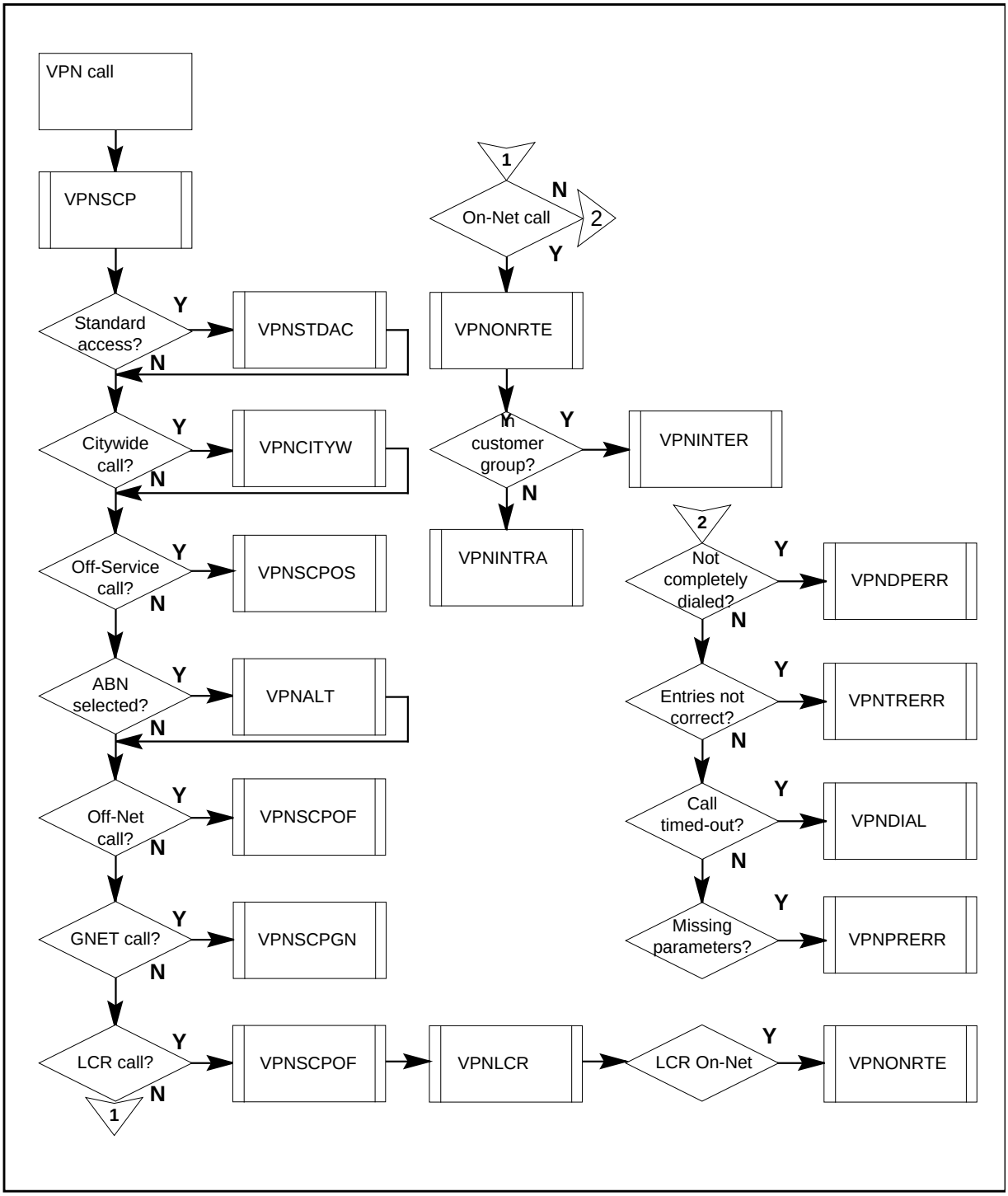
- Service control point
- Australasia/CALA/China services (AUS00015)

Associated functionality codes

The associated functionality codes for OM group VPN appear in the following table.

Functionality	Code
VPN - SSP Based	AUS00012

OM group VPN registers



OM group VPN (continued)

Register VPNALT

SCP VPN calls requiring alternate billing number (VPNALT)

Register VPNALT counts the number of SCP-based VPN calls that require an alternate billing number.

Register VPNALT release history

Register VPNALT was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VPNCITYW

VPN citywide calls (VPNCITYW)

Register VPNCITYW counts the number of SCP-based VPN citywide calls.

Register VPNCITYW release history

Register VPNCITYW was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VPNDPERR

VPN dial plan error (VPNDPERR)

Register VPNDPERR counts the number of VPN On-Net calls that meet datafill errors or terminate without warning.

Register VPNDPERR release history

Register VPNDPERR was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VPNINTER

SCP VPN intersite calls (VPNINTER)

Register VPNINTER counts the number of SCP VPN intersite calls. An intersite call originates and terminates on different sites of the same business group.

Register VPNINTER release history

Register VPNINTER was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VPNINTRA

SCP VPN intrasite calls (VPNINTRA)

Register VPNINTRA counts the number of SCP-based VPN intrasite calls. An intrasite call originates and terminates on the same site of one business group.

Register VPNINTRA release history

Register VPNINTRA was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group VPN (continued)

Extension registers

There are no extension registers.

Register VPNLCR

SCP VPN least-cost routing calls (VPNLCR)

Register VPNLCR counts the number of SCP VPN calls that send a Least Cost Routing (LCR) query.

Register VPNLCR release history

Register VPNLCR was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VPNNOTON

VPN not On-Net (VPNNOTON)

The system does not use this register.

Register VPNNOTON release history

Register VPNNOTON was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VPNONRTE

VPN On-Net routed calls (VPNONRTE)

Register VPNONRTE counts the number of VPN On-Net calls that the system routes correctly. The count includes primary LCR calls that the system translates as On-Net and GNET calls.

Register VPNONRTE release history

Register VPNONRTE was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VPNPDIAL

VPN partial dial (VPNPDIAL)

Register VPNPDIAL counts the number of attempted VPN On-Net calls that time out while the call waits to receive more digits. This count includes incidents when the SCP does not return enough digits to translate.

Register VPNPDIAL release history

Register VPNPDIAL was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VPNPRERR

VPN parameter error (VPNPRERR)

Register VPNPRERR counts the number of VPN calls that fail as a result of missing conditional parameter information.

Register VPNPRERR release history

Register VPNPRERR was introduced in BCS36.

OM group VPN (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VPNSCP

Service control point VPN originations (VPNSCP)

Register VPMSCP counts the number of SCP-based VPN calls.

Register VPNSCP release history

Register VPNSCP was introduced in BCS36.

Associated registers

Counts in registers VPNNOTON and VPNONTRE cannot add up to more than the value of VPNSCP.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VPNSCPGN

VPN GNET calls (VPNSCPGN)

Register VPNSCPGN counts the number of attempted GNET calls for SCP-based VPN.

Register VPNSCPGN release history

Register VPNSCPGN was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VPNSCPOF

SCP VPN Off-Net calls (VPNSCPOF)

Register VPNSCPOF counts the number of SCP-based VPN Off-Net calls.

Register VPNSCPOF release history

Register VPNSCPOF was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VPNSCPOS

SCP VPN Offservice calls (VPNSCPOS)

Register VPNSCPOS counts the number of SCP-based Offservice VPN calls.

Register VPNSCPOS release history

Register VPNSCPOS was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VPNSTDAC

VPN standard access calls (VPNSTDAC)

Register VPNSTDAC counts the number of SCP-based VPN standard access calls.

OM group VPN (end)

Register VPNSTDAC release history

Register VPNSTDAC was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VPNTRERR

VPN On-Net translation error (VPNTRERR)

Register VPNTRERR counts the number of VPN On-Net calls that fail because of entries in translation tables that are not correct.

Register VPNTRERR release history

Register VPNTRERR was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group VPSC

OM description

Voice processing service circuits (VPSC)

The OM group VPSC provides use and maintenance statistics for voice processing unit (VPU) service circuits. These statistics determine the performance of service circuit use and help to adjust the availability of VPU nodes and services.

Release history

The OM group VPSC was introduced in BCS35.

Registers

The OM group VPSC registers appear on the MAP terminal as follows:

```
VPSCSZR VPSCMAX     VPSCUSE     VPSCMTC
VPSCIDL VPSCMIS     VPSCAUD     VPSCFLT
```

Group structure

The OM group VPSC provides one tuple for each VPU service in an office.

Key field:
T_VPU_SERVICE

Info field:
T_VPSC_OMINFO

Associated OM groups

There are no associated OM groups.

Associated functional groups

The following functional group associates with OM group VPSC:

VPU peripherals

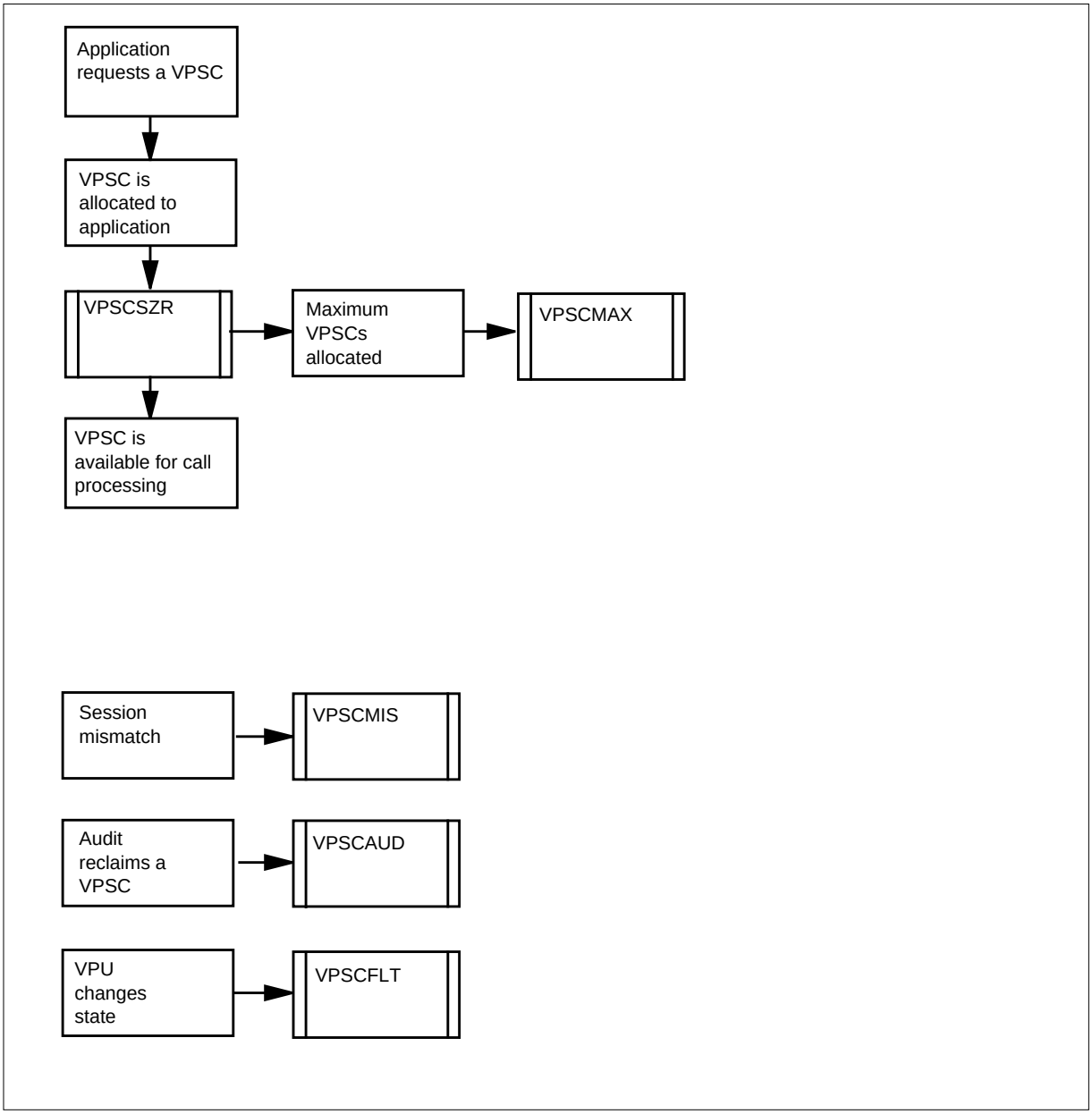
Associated functionality codes

The functionality codes for OM group VPSC appear in the following table.

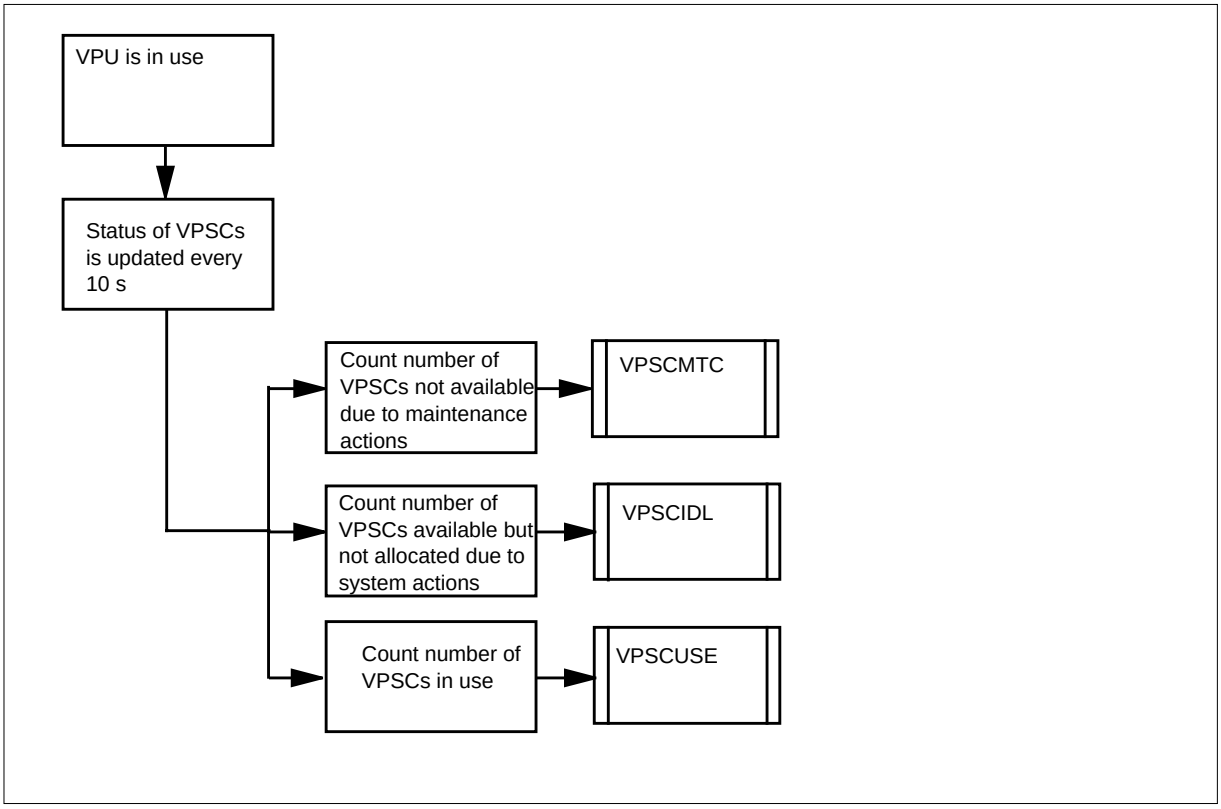
Functionality	Code
Enhanced Service Resource Management	NTXS31AA

OM group VPSC (continued)

OM group VPSC registers



OM group VPSC usage registers



Register VPSC

VPSC reclaimed by audit (VPSC)

Register VPSC increases each time an audit reclaims a VPSC.

Register VPSC release history

Register VPSC was introduced in BSC35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register VPSCFLT

VPSC faults (VPSCFLT)

OM group VPSC (continued)

Register VPSCFLT increases each time a fault affects a VPSC and causes the VPSC to fail while in use.

Register VPSCFLT release history

Register VPSCFLT was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register VPSCIDL

VPSC idle usage (VPSCIDL)

The system updates register VPSCIDL every 10 s to record the number of VPSCs available but not allocated.

Register VPSCIDL release history

Register VPSCIDL was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register VPSCMAX

VPSC seizures (high-water mark) (VPSCMAX)

Register VPSCMAX indicates the highest number of VPSCs allocated on the VPU. The high-water mark always equals the highest count for the current OM transfer period. This register indicates how efficiently the system distributes the traffic load over the available VPUs.

Register VPSCMAX release history

Register VPSCMAX was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register VPSCMIS

VPSC session mismatch (VPSCMIS)

Register VPSCMIS increases when the system detects a VPSC session mismatch.

Register VPSCMIS release history

Register VPSCMIS was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register VPSCMTC

VPSC maintenance usage (VPSCMTC)

The system updates register VPSCMTC every 10 s to record the number of VPSCs not available because of maintenance actions.

Register VPSCMTC release history

Register VPSCMTC was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register VPSCSZR

VPSC seizures (VPSCSZR)

Register VPSCSZR counts the number times the system allocates a VPSC. The sum of VPSCSZR registers for all VPUs assigned to a particular service indicates the volume of traffic the service receives.

Register VPSCSZR release history

Register VPSCSZR was introduced in BCS35.

Associated registers

There are no associated registers.

OM group VPSC (end)

Associated logs

There are no associated logs.

Register VPSCUSE

VPSC traffic usage (VPSCUSE)

The system updates register VPSCUSE every 10 s to record the number of VPSCs in use. This register measures service circuit traffic.

Register VPSCUSE release history

Register VPSCUSE was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group VSNCOM

OM Description

Voice services node (VSNCOM)

Register VSNCOM measures call attempts and dispositions for voice services node (VSN)-related calls on an application base.

Release history

The OM group VSNCOM was introduced in BCS33.

Registers

The OM group VSNCOM registers appear on the MAP terminal as follows:

```
VSNATT          VSNIDFL         VSNNOVL         VSNIVFL
VSNOPRF         VSNOPRB         VSNVABN         VSNVABA
VSNDABT         VSNVABT
```

Group structure

The OM group VSNCOM provides one tuple for each application entered in field XAPPLN in table TOPSVNIN.

Key field:
TOPS_XAPPLN_TYPE

Info field:
There is no info field.

Associated OM groups

The OM group AABS—All the registers in VSNCOM come before the registers from OM group AABS and provide registers for multiple VSN applications.

Associated functional groups

The following functional groups associate with OM group VSNCOM:

- Automated Alternate Billing Service (AABS)
- Automated Directory Assistance Service (ADAS)

OM group VSNCOM (continued)

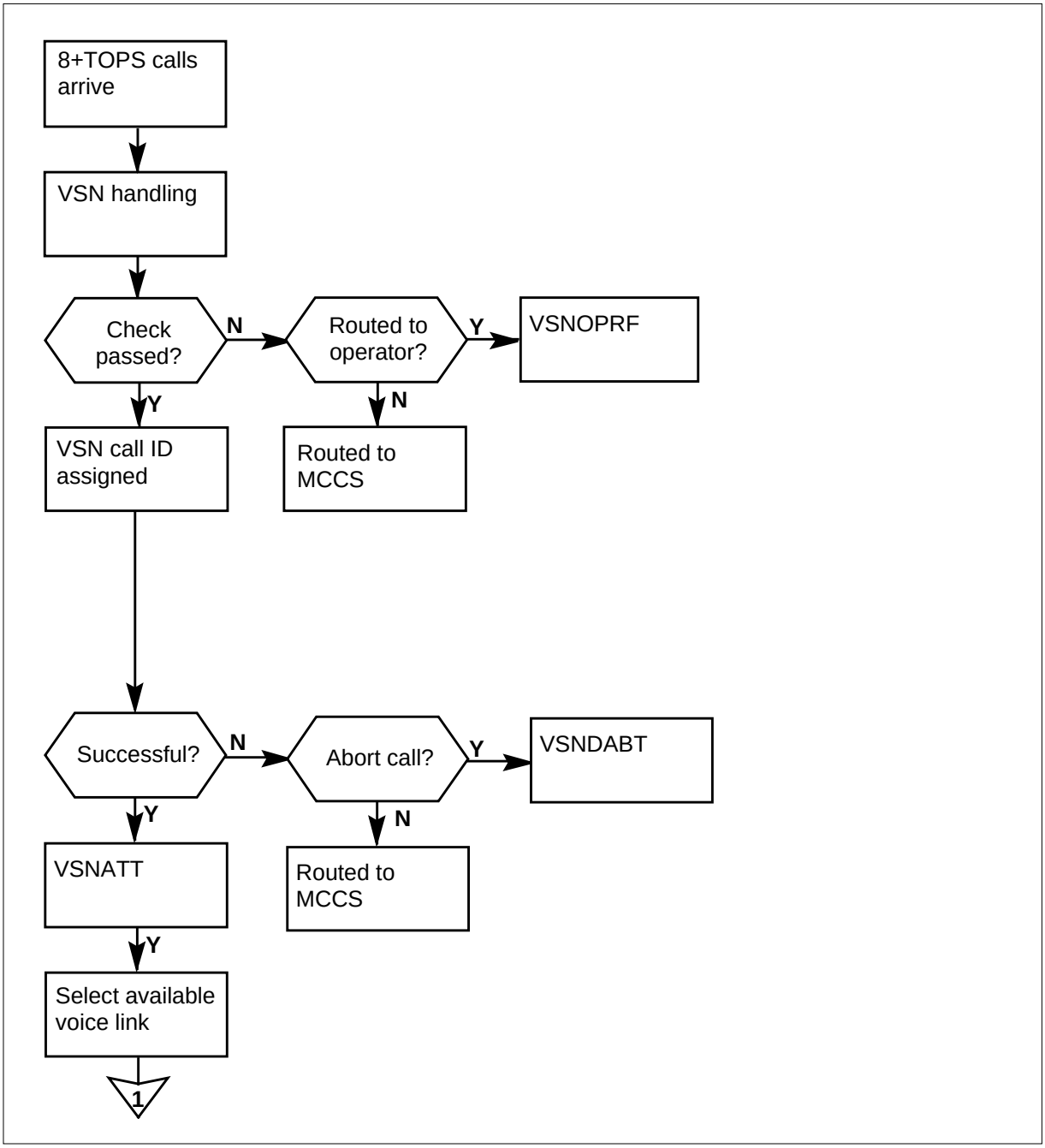
Associated functionality codes

The associated functionality codes for the OM group VSNCOM appear in the following table.

Functionality	Code
Automated Alternate Billing Service	NTXA17AA
TOPS ADAS	NTXQ23AA

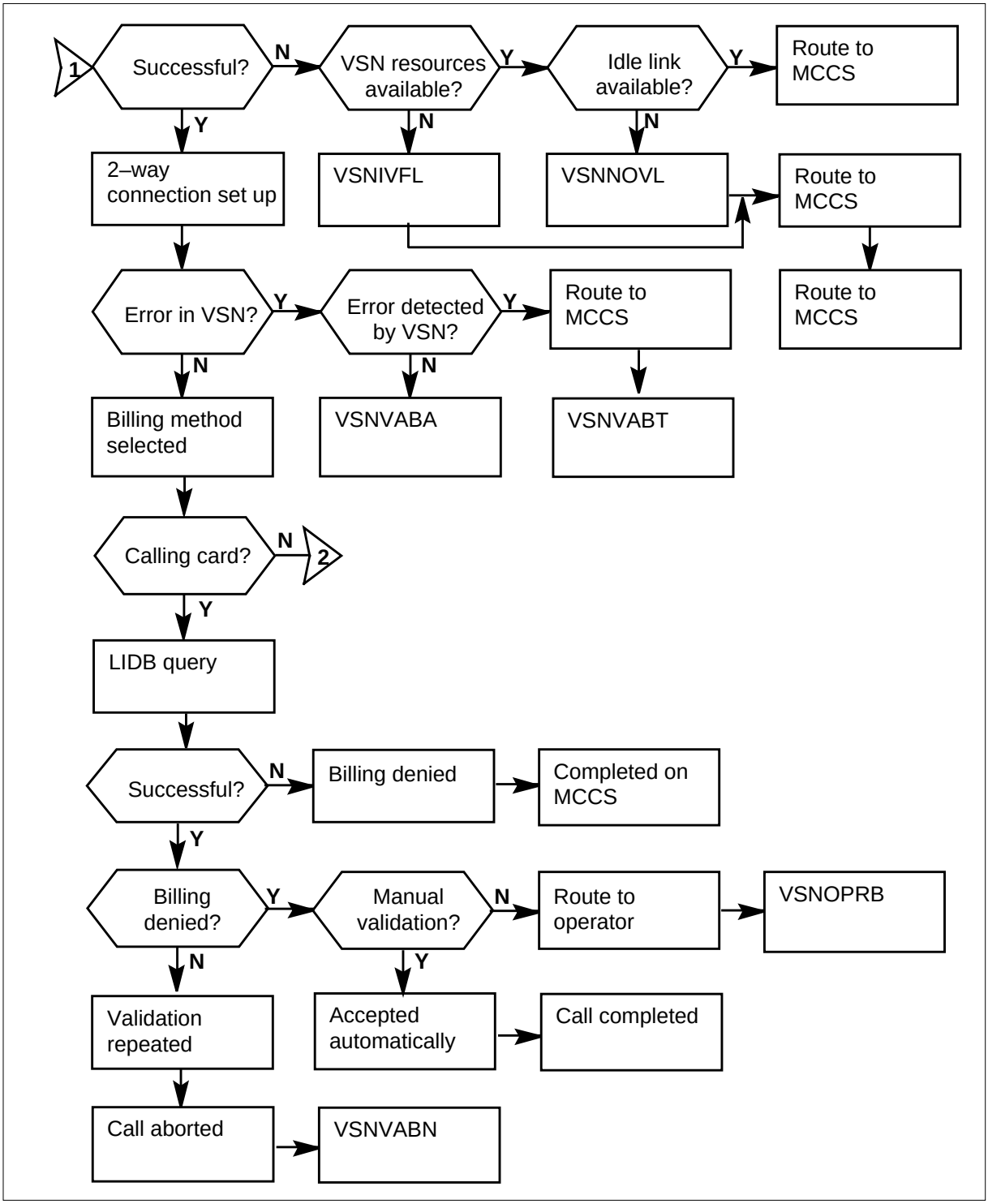
OM group VSNCOM (continued)

OM group VSNCOM registers

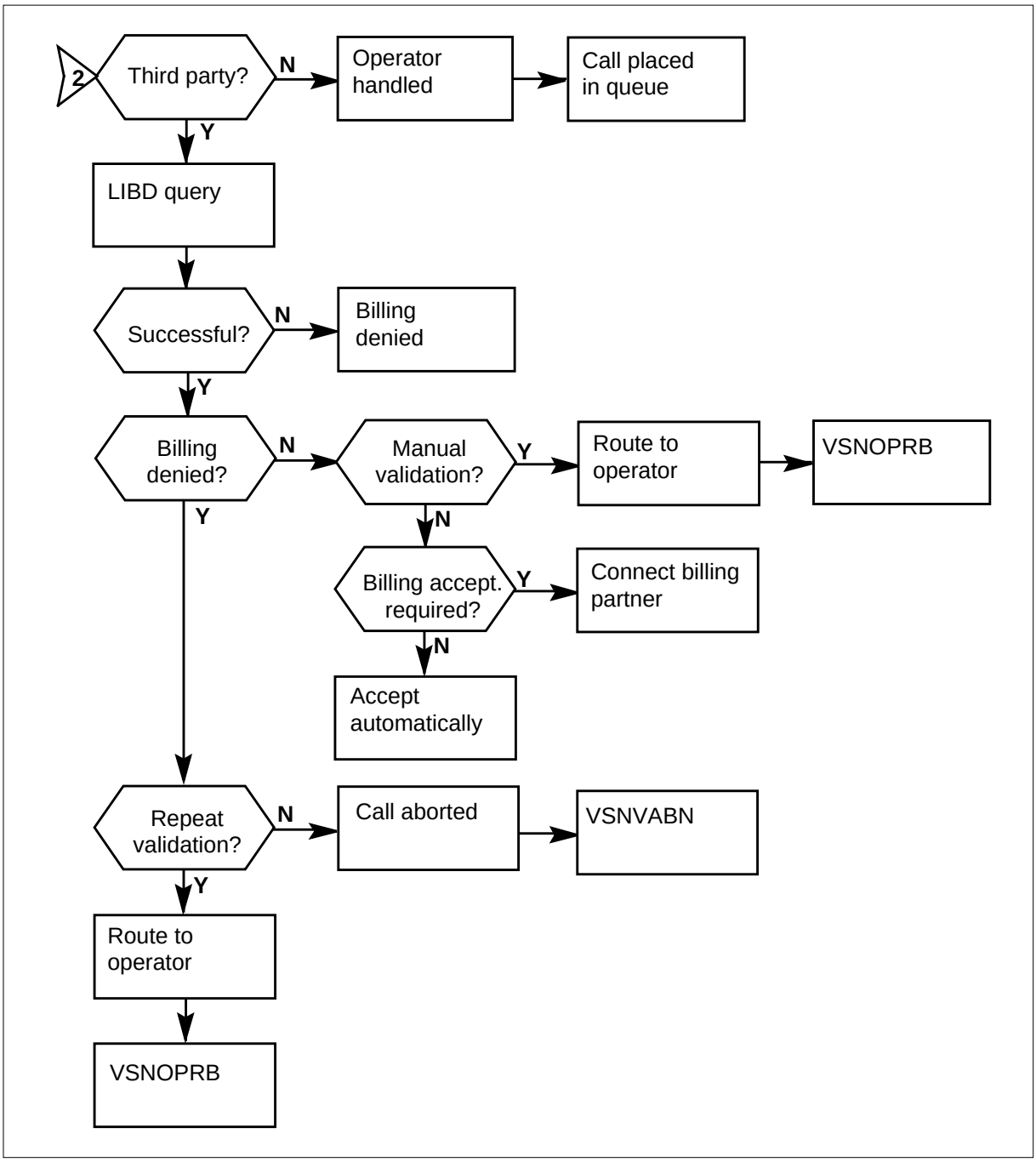


OM group VSNCOM (continued)

OM group VSNCOM registers (continued)



OM group VSNCOM registers (continued)



OM group VSNCOM (continued)

Register VSNATT

VSN call attempts (VSNATT)

Register VSNATT counts the number of calls in which the DMS switch attempts to provide VSN application handling. This action occurs at the point at which all originating station treatment checks have passed, and coin signaling is complete. The DMS switch must be ready to select a voice link to a VSN for the call.

Register VSNATT release history

Register VSNATT was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VSNDABT

VSN calls aborted due to abnormal condition in DMS (VSNDABT)

Register VSNDABT counts the number of aborted VSN application calls an error condition in the DMS switch causes. When this register increases, inspect the DMS central control logs to determine the time of the occurrence.

Register VSNDABT release history

Register VSNDABT was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VSNIDFL

VSN call failures due to the DMS switch (VSNIDFL)

Register VSNIDFL counts the number of times the DMS switch fails to provide VSN application handling. This register applies to calls designated to receive VSN application handling during the initial connection to the VSN.

An increase in this register indicates that an error condition reduced the availability of resources in the DMS switch. Possible abnormal conditions include no available voice link, or no network connection.

Register VSNIDFL release history

Register VSNIDFL was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VSNIVFL

VSN call failures due to the VSN (VSNIVFL)

Register VSNIVFL counts the number of times the VSN fails to provide initial VSN application handling. This register applies to calls designated to receive VSN application handling.

An increase in this register indicates an error condition, which can cause a potential capacity limit or resource failure in a VSN.

Register VSNIVFL release history

Register VSNIVFL was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group VSNCOM (continued)

Register VSNNOVL

VSN call failure due to no voice link (VSNNOVL)

Register VSNNOVL counts the number of times the DMS switch fails to provide VSN application handling for eligible calls. This condition occurs because an idle voice link is not available.

An increase in this register indicates possible availability problems with the voice links between the DMS and VSN.

Register VSNNOVL release history

Register VSNNOVL was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VSNOPRB

VSN calls routed to operator during back end of call (VSNOPRB)

Register VSNOPRB counts the number of times a VSN application call goes to an operator during the back-end handling of the call. This register increases when the system routes a VSN application call to an operator. The system routes the call to the operator after the VSN that handles the call sends a connection request.

Register VSNOPRB release history

Register VSNOPRB was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VSNOPRF

VSN calls routed to operator during front end of call (VSNOPRF)

Register VSNOPRF counts the number of times a VSN application call goes to an operator during the front-end handling of the call. This register increases when the system routes a VSN application call to an operator. The system routes the call to the operator after the VSN that handles calls sends a forward connection request.

Register VSNOPRF release history

Register VSNOPRF was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VSNVABA

VSN calls aborted abnormally by VSN (VSNVABA)

Register VSNVABA counts the number of times the VSN abnormally aborts VSN application calls.

An increase in register indicates an error condition in a VSN. Check the maintenance notice logs in the DMS switch and logs in the VSN to isolate the problem.

Register VSNVABA release history

Register VSNVABA was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group VSNCOM (end)

Register VSNVABN

VSN calls aborted normally by VSN (VSNVABN)

Register VSNVABN counts the number of times the VSN aborts VSN application calls in the normal manner.

This register increases each time the system terminates a VSN application call because of a normal call-cancellation condition. When the VSN receives message data that indicate a normal call-cancellation condition, the VSN sends an Abort Call message to the DMS CM. The DSM CM terminates the VSN application call.

Register VSNVABN release history

Register VSNVABN was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VSNVABT

VSN calls aborted due to DMS detection of an abnormal condition in VSN (VSNVABT)

Register VSNVABT counts the number of VSN application calls aborted when the DMS detects an abnormal condition in the VSN. When this register increases, inspect the DMS central control logs and VSN logs for the period.

Register VSNVABT release history

Register VSNVABT was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group VSNLINK

OM description

Voice services node link (VSNLINK)

The OM group VSNLINK monitors application-level activity on data links. These datalinks that connect the DMS and voice services node (VSN) in DMS-200 TOPS offices. Automated Alternate Billing Service (AABS) communicates through the DMS-to-VSN data links. The AABS automates the handling of 0+ dialed collect calls, third-number billed calls, and calling card calls. The VSN and DMS use an application protocol to exchange messages. These messages relate to billing, network connections, call dispositions, maintenance notifications, and audits.

The VSNLINK contains ten registers that count the following events:

- attempts to send messages to a VSN from the DMS central control (CC)
- successful attempts to send messages from the DMS CC to a VSN
- attempts to send messages from the DMS CC to a VSN that fail because of link failure
- messages that the DMS CC receives from a VSN
- non-call incoming messages that are not calls that the DMS cannot process. The DMS cannot process these messages because resources are not available, or because a call ID is not available
- failures by the DMS to initiate messaging with a VSN because a call ID is not available

Release history

The OM group VSNLINK was introduced in BCS33.

BCS33

The number of tuples was increased from one to three for each office.

Registers

The OM group VSNLINK registers appear on the MAP terminal as follows:

```
VMSGSNT      VMSGSNT2     VMSGSUC      VMSGSUC2
VMSGFAIL     VMSGRCV      VMSGRCV2     VNCALLFL
NOCIDNCM     NOCIDCP
```

OM group VSNLINK (continued)

Group structure

The OM group VSNLINK provides three tuples for each DMS-200 TOPS office.

Key field:
VSN_DATALINK

Info field:
There is no info field.

Associated OM groups

The OM group AABS counts calls that use AABS and VSNs.

Associated functional groups

The functional groups that associate with OM group VSNLINK include:

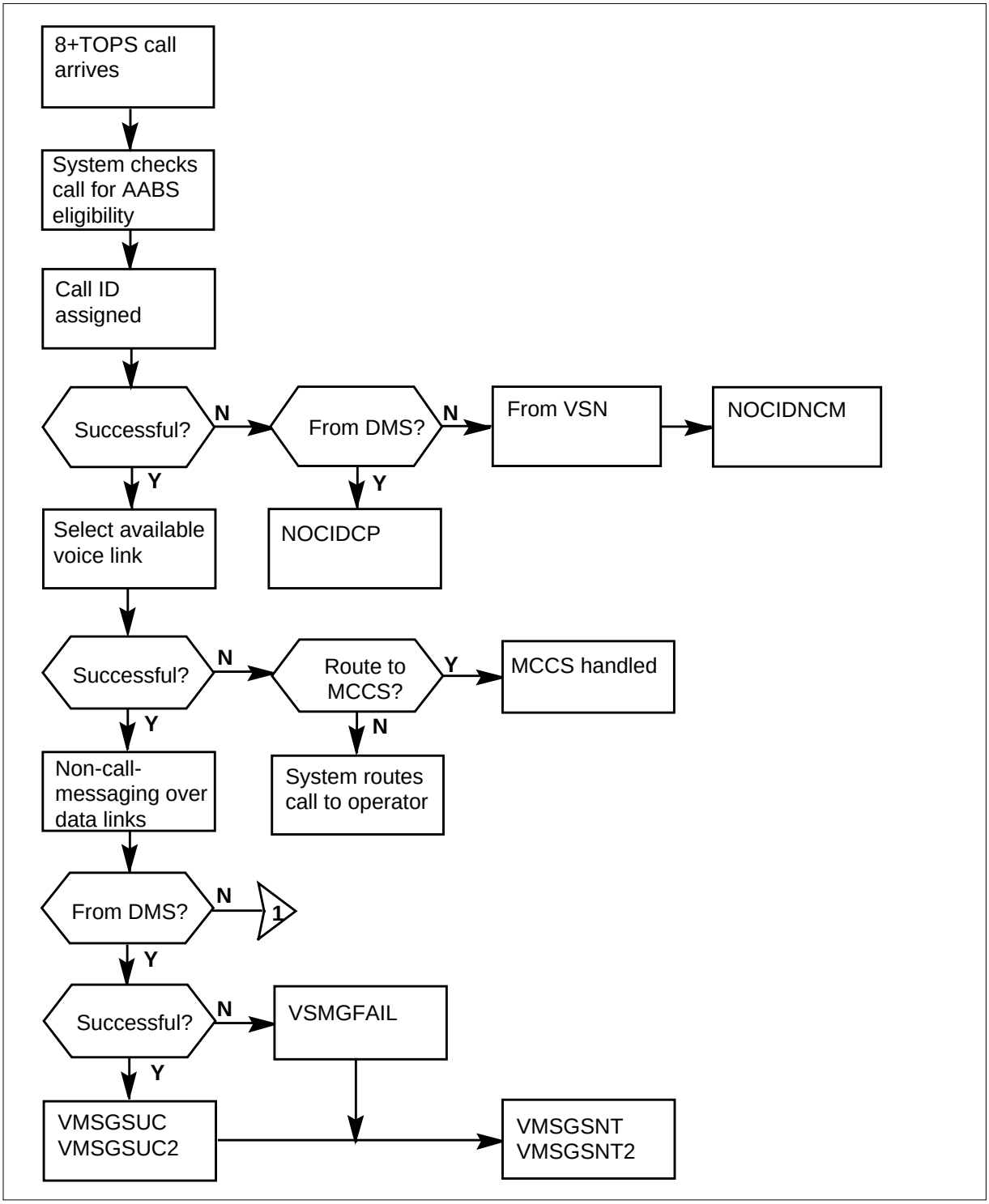
- DMS-200 TOPS
- Automated Alternate Billing Service (AABS)
- Automated Directory Assistance Service (ADAS)

Associated functionality codes

The associated functionality codes for OM group VSNLINK appear in the following table.

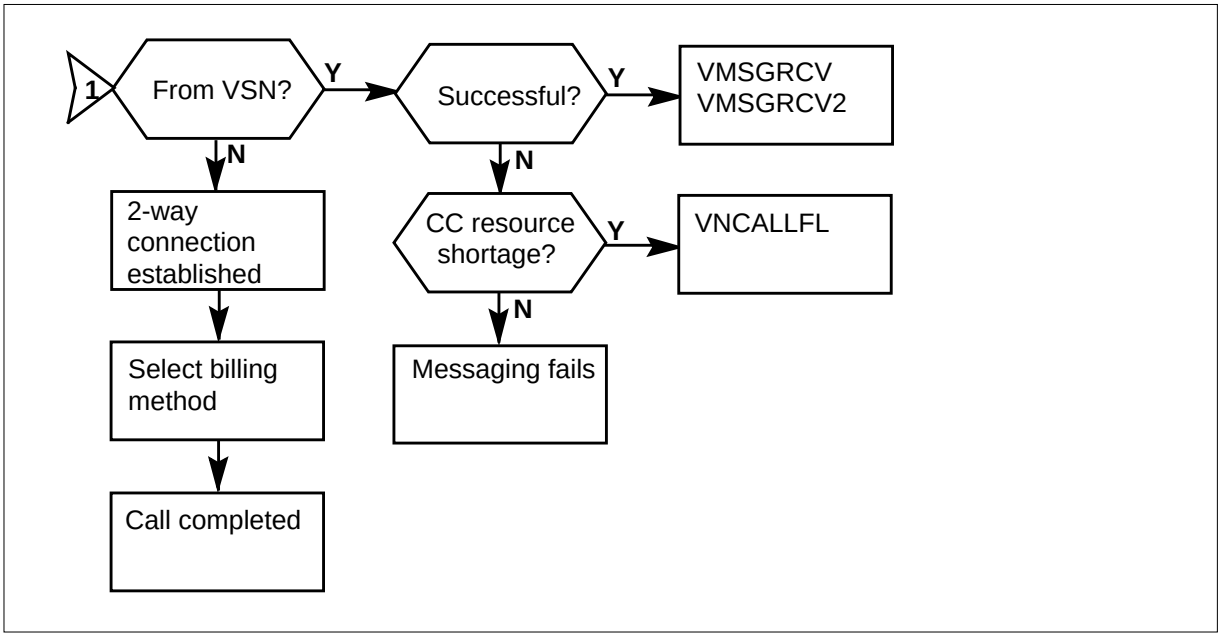
Functionality	Code
Automated Alternate Billing Service	NTXA17AA
TOPS ADAS	NTXQ23AA

OM group VSNLINK registers



OM group VSNLINK (continued)

OM group VSNLINK registers (continued)



Register NOCIDCP

No application call ID for DMS call processing (NOCIDCP)

Register NOCIDCP counts DMS failures to process calls that require messaging with a VSN. The failures occur because an application call ID is not available.

Counts in NOCIDCP indicate problems with VSN call ID allocation and availability in the DMS. Notify Northern Telecom if this register increases.

Register NOCIDCP release history

Register NOCIDCP was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register NOCIDNCM

No call ID for non-call messages (NOCIDNCM)

Register NOCIDNCM counts DMS failures to process non-call messages from a VSN. The failures occur because an application call ID is not available.

Counts in NOCIDNCM indicate problems with VSN call ID allocation and availability in the DMS. Notify Northern Telecom if this register increases.

Register NOCIDNCM release history

Register NOCIDNCM was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VMSGFAIL

Messages not sent to voice services node due to link failure

VMSGFAIL counts each time the system fails to send messages from the DMS CC to a VSN because of data link failures.

Register VMSGFAIL release history

VMSGFAIL was introduced in BCS28.

Associated registers

VMSGSNT = VMSGSUC + VMSGFAIL

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VMSGRCV

Messages received by DMS central control from voice services node (VMSGRCV)

OM group VSNLINK (continued)

Register VMSGRCV counts messages that the DMS CC receives from a VSN over a data link.

Register VMSGRCV release history

Register VMSGRCV was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register VMSGRCV2

Register VMSGSNT

Attempts to send messages to voice services node (VMSGSNT)

Register VMSGSNT counts attempts to send messages from the DMS CC to a VSN over a data link.

Register VMSGSNT release history

Register VMSGSNT was introduced in BCS28.

Associated registers

VMSGSNT = VMSGSUC + VMSGFAIL

Associated logs

There are no associated logs.

Extension registers

Register VMSGSNT2

Register VMSGSUC

Messages sent successfully to voice services node (VMSGSUC)

Register VMSGSUC counts successful attemtps to send messages from the DMS CC to a VSN over a data link.

Register VMSGSUC release history

Register VMSGSUC was introduced in BCS28.

Associated registers

VMSGSNT = VMSGSUC + VMSGFAIL

Associated logs

There are no associated logs.

Extension registers

Register VMSGSUC2

Register VNCALLFL

DMS failures to process non-call messages due to unavailable resources (VNCALLFL)

Register VNCALLFL counts failures of the DMS CC to process non-call messages from a VSN because of DMS CC resource shortages.

Register VNCALLFL increases when the DMS CC receives an audit request, audit reply, or maintenance notice message from a VSN. The DMSCC receives the messages over the datalink. The DMSCC does not process the message. This event occurs when DMS CC cannot obtain a centralized automatic message accounting (CAMA) TOPS recording unit (CTRU) resource. An increase in VNCALLFL indicates not enough CTRUs are available.

Register VNCALLFL release history

Register VNCALLFL was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group WBTRK

OM description

Wideband Trunk

The OM group WBTRK provides three Dialable Wideband Service (DWS) OM registers. The user installs the DWS on registers for each trunk group. The OM group WBTRK supports a group of trunks and keeps a separate count for each trunk supported. A trunk group defines the OM group WBTRK only for wideband trunks.

The WBTRK OM registers indicate the number and size of calls that a wideband trunk group handles. The registers count the number of DS0 channels on a DS1 link that calls use. Calls can occur on all trunks in the wideband trunk group.

When a call of size *n*, pegs the WBTRK OM registers, the registers increases by *n* increments. A call on a wideband trunk group can be of size *n*, where *n* = 1-24 and corresponds to the number of DS0s that call uses. The value, *n* = 1 corresponds to a narrowband call and *n* = 2-24 corresponds to a wideband call. Traffic engineers use these measurements to provision wideband trunk groups more efficiently.

The WBTRK OM registers are for wideband trunk groups. only. The registers gather information on trunks that the user enters in table TRKGRP with the wideband option selected (SELSEQ=WIDEBAND). The system treats attempts to use OMSHOW to display WBTRK peg counts for trunks other than wideband trunks as invalid.

Release history

OM group WBTRK was introduced in NA005.

Registers

OM group WBTRK registers appear on the MAP terminal as follows:

```
   EQINCTOT        EQATTMPT         EQOVATB

1021 PRIFLX1

          4               8               4
```

Group structure

The number of WBTRK OM tuples equals the number of wideband trunk groups in table TRKGRP.

Key field:
None

Info field:
Trunk group CLLI name

Associated OM groups

The following OM groups are for WBTRK.

- TRK
- WIDEBAND

The WBTRK OMs and TRK OMs are trunk group OMs and increase under the same conditions. These OM groups have some differences. When a call pegs the TRK OMs, the call causes the register to increase by one increment. The size of the call does not determine the number of increments. A call of size *n* that pegs the WBTRK OMs causes the register to increase by *n* increments. All trunk groups have TRK OM tuples. Only wideband trunk groups have WBTRK OM tuples.

The following table shows the comparison of like WBTRK and TRK OM registers and the conditions that increase both associated registers.

Associated WBTRK and TRK registers

WBTRK	TRK	Conditions that increase both
EQINCTOT	INCATOT	Any size incoming call attempt on a wideband trunk group.
EQATTMPT	NATTMPT	Any size terminating call attempt on a wideband trunk group.
EQOVATB	NOVFLATB	Any size terminating overflow all trunks busy (OVATB) call attempt on a wideband trunk group. ***Note:*** The OVATB occurs when the availability of too few circuits causes the trunk to reroute a termination call attempt.

The OM group WBTRK is also like the OM group WIDEBAND. Both OM groups provide data on the sizes of wideband calls. The OM group

OM group WBTRK (continued)

WIDEBAND only provides data for each office. Register WBTRK provides information on narrowband calls. Register WIDEBAND does not provide information on narrowband calls.

The following table shows the comparison of like registers WBTRK and WIDEBAND OM and the conditions that increase both associated registers.

Associated registers WBTRK and WIDEBAND

WBTRK	WIDEBAND	Conditions that increase both
EQINCTOT	TWBATMPT	Incoming wideband call attempt on a wideband trunk group.
EQINCTOT	WBATn ,where n=2,3,...24.	An incoming wideband call of size n.
EQOVATB	TWBATB	Terminating OVATB wideband attempt on a wideband trunk group.

Associated functional groups

Dialable Wideband Services (DWS)

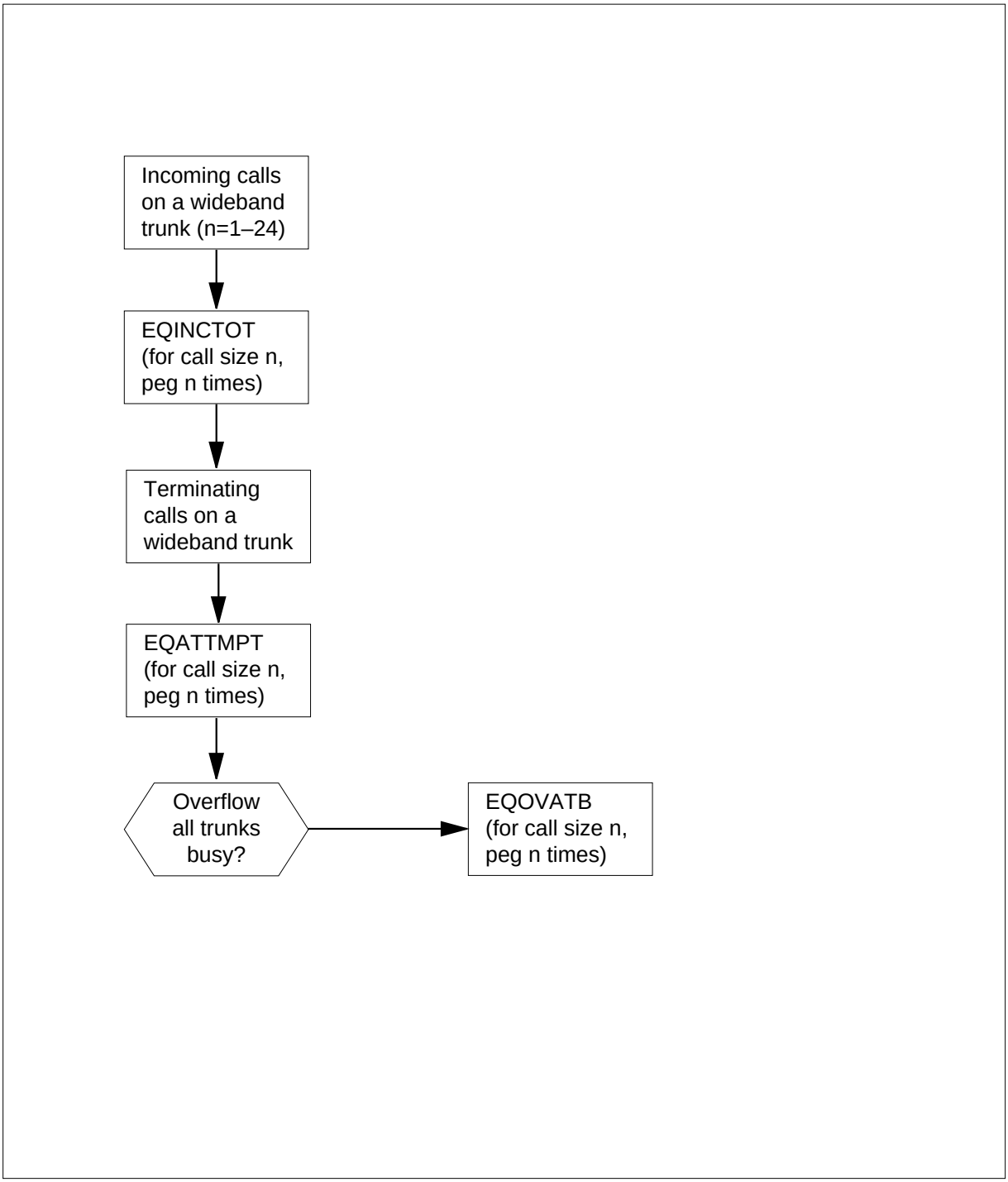
Associated functionality codes

The functionality codes for OM group WBTRK appear in the following table.

Functionality codes

Functionality	Code
DWS Access to Carrier (Access Tandem)	NTXR66AA
DWS PRI	NTXR49AA
DWS Intertoll ISUP	NTXS28AA

OM group WBTRK registers



OM group WBTRK (continued)

Register EQINCTOT

Equivalent incoming total attempts

Incoming call attempts use DS0 channels on a wideband trunk group. Register EQINTOT counts the number of DS0 channels that the incoming calls use.

Register EQINCTOT release history

Register EQINCTOT was introduced in NA005.

Associated registers

Registers INCATOT, TWBATMPT, WBATn (n=2, 3,...24)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register EQATTMPT

Equivalent terminating attempts

Calls that attempt termination on a trunk in the wideband trunk group request DS0 channels. Register EQATTMPT counts the number of DS0 channels that the calls request.

Register EQATTMPT release history

Register EQATTMPT was introduced in NA005.

Associated registers

NATTMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register EQOVATB

Equivalent overflow all trunks busy terminating attempt

Calls can request DS0 channels and fail to terminate on a trunk in a wideband trunk group because all trunks are busy. Register EQOVATB counts the number of DS0 channels that these calls request .

Register EQOVATB release history

The introduction of Register EQOVATB occurs in NA005.

Associated registers

NOVFLATB, TWBATB

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group WC

OM description

The OM group who's calling (WC) contains thirteen peg registers that count call actions that occur related to the WC feature. The registers are:

- WCABDN
- WCATT
- WCCON
- WCDNERR
- WCOFR
- WCPRST
- WCREC
- WCSCRN
- WCT1
- WCT2
- WCT3
- WCT4
- WCT5

Release history

NA013 introduced OM group WC.

Registers

OM group WC registers display on the MAP terminal as follows.

```
WC
CLASS: ACTIVE
START:1999/07/07 12:15:00 WED: 1999/07/07 12:22:59 WED;
SLOWSAMPLES:         5;FASTSAMPLES:   48;

    WCATT     WCCON     WCREC      WCPRST
    WCOFR     WCSCRN    WCDNERR    WCABDN
    WCT1      WCT2      WCT3       WCT4
    WCT5
      1         1         1          1
      1         1         0          0
      0         0         0          0
```

Group structure

OM group WC

Key field:
None

Info field:
None

Related OM groups

There are no related OM groups for OM group WC.

Related functional groups

There are no related functional groups for OM group WC.

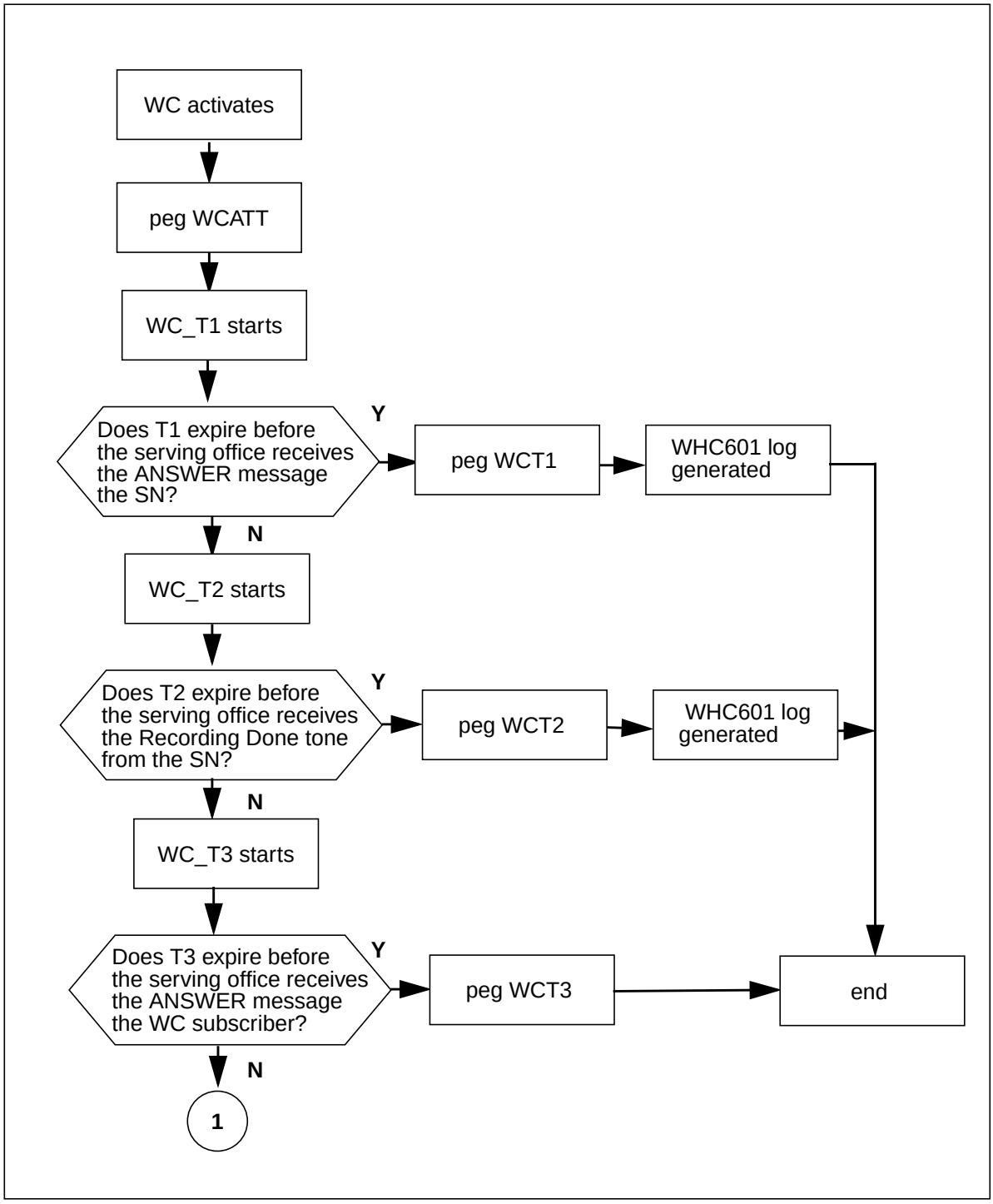
Related functionality codes

The table that follows lists the functionality name and codes related to OM group WC.

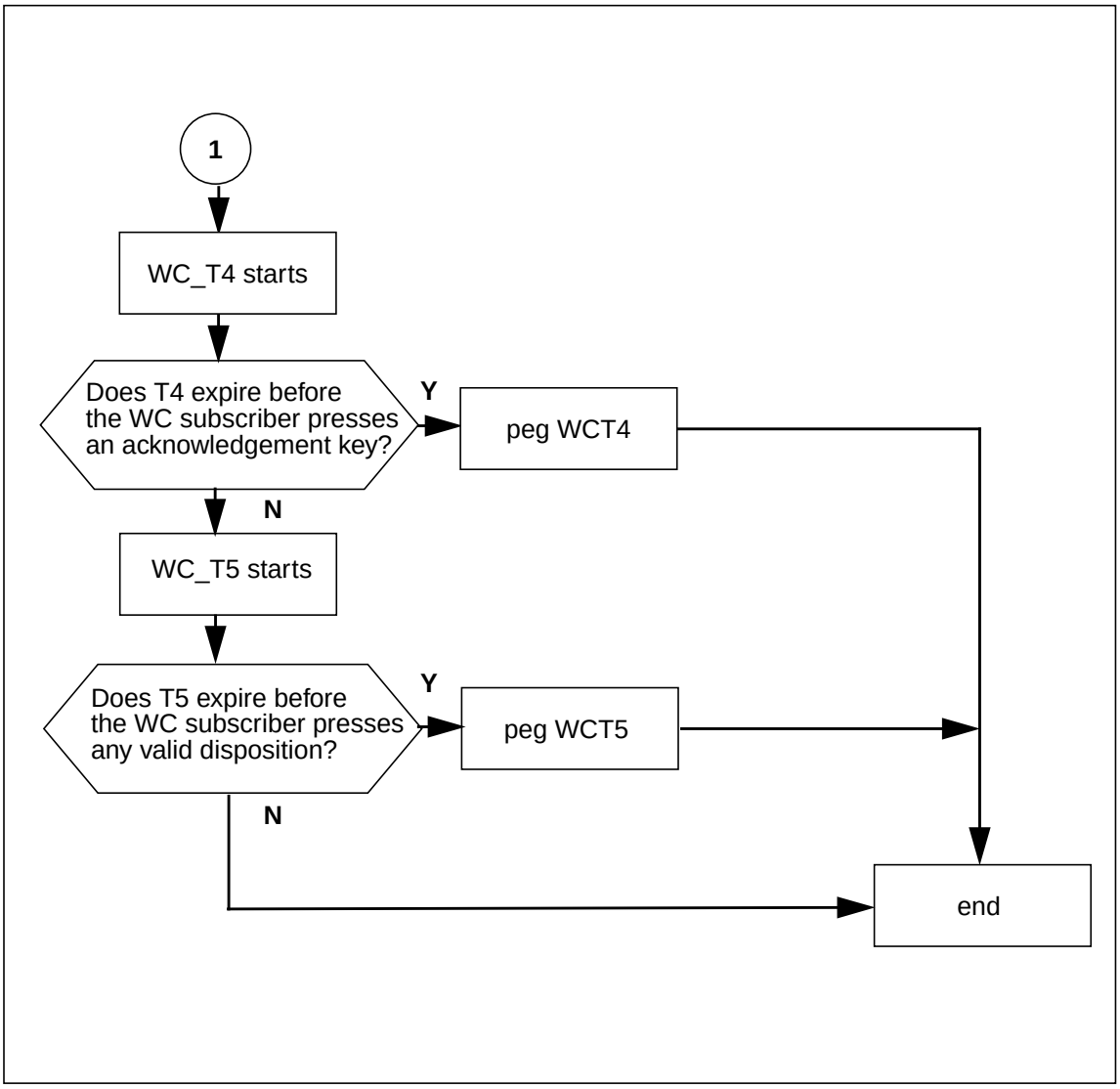
Functionality	Code
Who’s Calling	RES00094

OM group WC (continued)

OM group WC registers for timer events (sheet 1of 2)

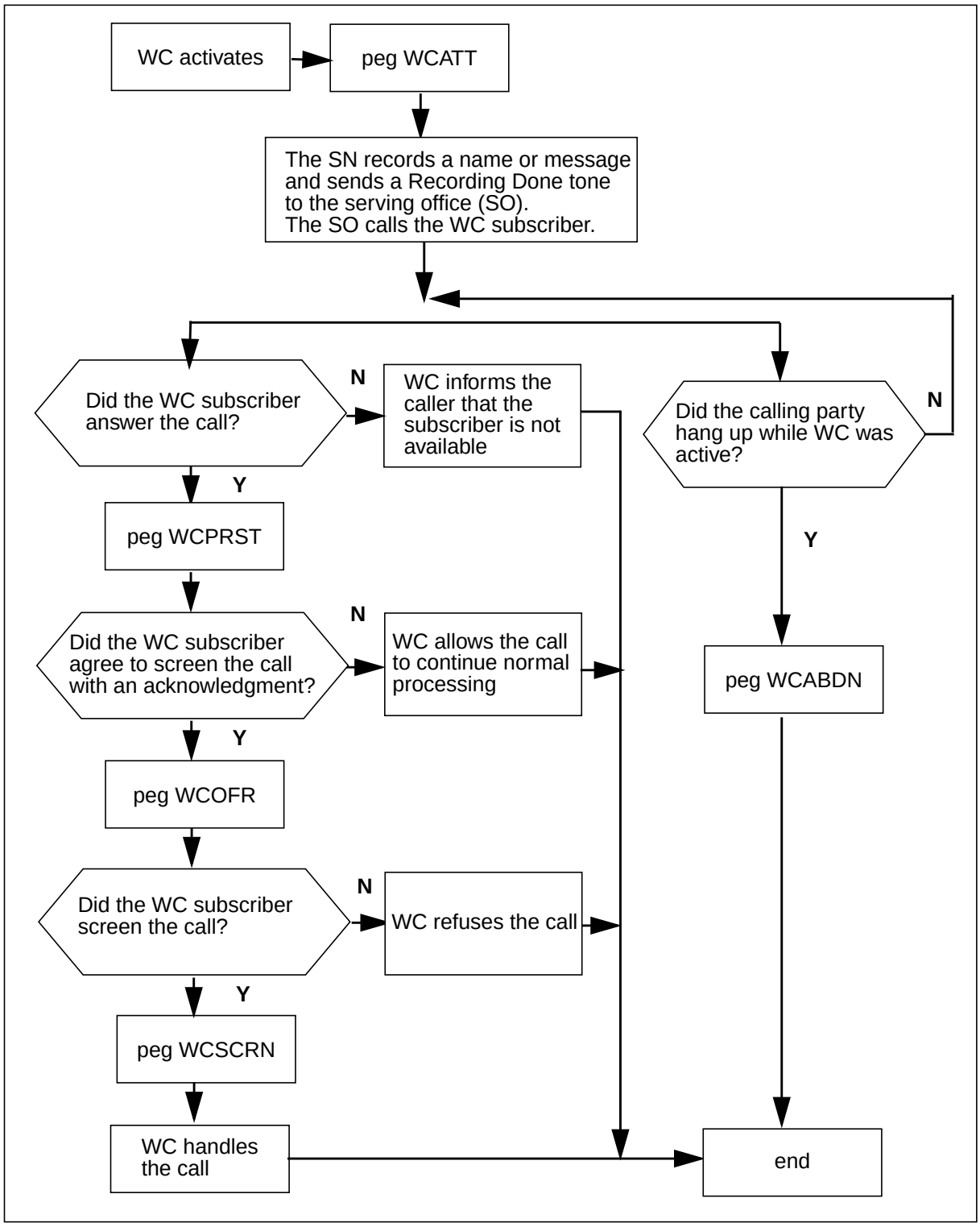


OM group WC registers for timer events (sheet 2 of 2)

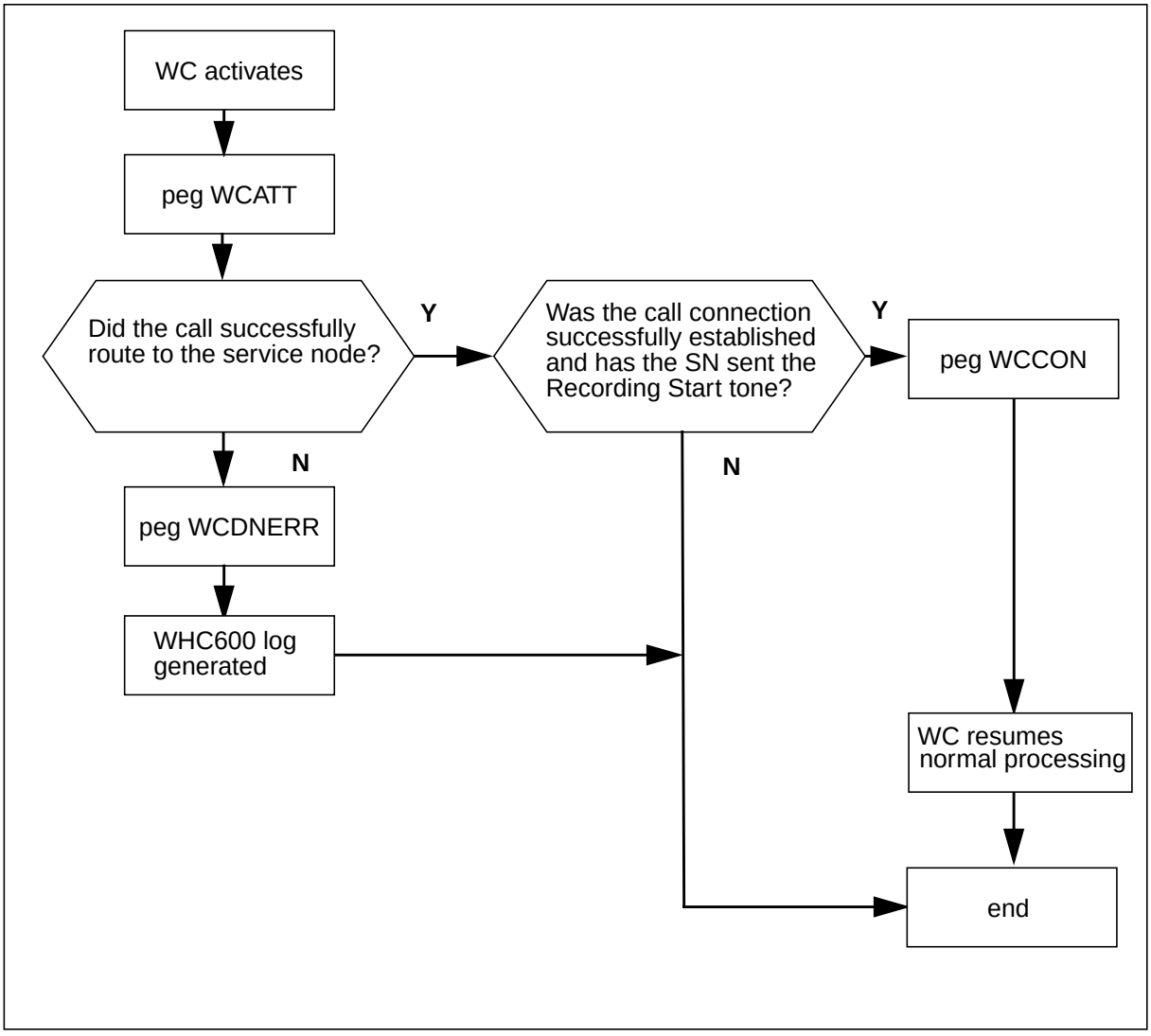


OM group WC (continued)

OM group WC registers for end-user events



OM group WC registers for connection events



Register WCABDN

The who's calling abandoned calls (WCABDN) register counts the number of times a calling party hangs up. The WCABDN register increments when the calling party hangs up after WC activation but before the subscriber screens the call.

Register WCABDN release history

NA013 introduced the WCABDN register.

OM group WC (continued)

Related registers

There are no related registers.

Related logs

There are no related logs.

Extension registers

There are no extension registers.

Register WCATT

The who's calling request attempt (WCATT) register counts the WC feature activation attempts. The WCATT register increments when an incoming private or unavailable call terminates on a WC subscriber which causes WC feature activation.

Register WCATT release history

NA013 introduced the WCATT register.

Related registers

There are no related registers.

Related logs

There are no related logs.

Extension registers

There are no extension registers.

Register WCCON

The who's calling connected to SN (WCCON) register counts the WC feature established SN connections. The WCCON register increments when an incoming private or unavailable call connection establishes at an SN and the SN sends the Recording Start tone.

Register WCCON release history

NA013 introduced the WCCON register.

Related registers

There are no related registers.

Related logs

There are no related logs.

Extension registers

There are no extension registers.

Register WCDNERR

The who's calling routing DN error (WCDNERR) register counts WC feature DN routing errors. The WCDNERR register increments when an incoming private or unavailable call cannot route to the SN.

Register WCDNERR release history

NA013 introduced the WCDNERR register.

Related registers

There are no related registers.

Related logs

The WHC600 log generates when a call cannot route to the SN. The WHC601 log generates when the WC feature cannot allocate a resource to route the call to the SN.

Extension registers

There are no extension registers.

Register WCOFR

The who's calling to offer dispositions (WCOFR) register counts WC feature subscriber answered calls. The WCOFR register increments when the WC subscriber presses any digit to acknowledge the SN call that contains the calling party's recorded name.

Register WCOFR release history

NA013 introduced the WCOFR register.

Related registers

There are no related registers.

Related logs

There are no related logs.

Extension registers

There are no extension registers.

OM group WC (continued)

Register WCPRST

The who's calling to present recorded name (WCPRST) register counts WC feature subscriber answers. The WCPRST register increments when the WC subscriber answers the SN call that contains the call party's recorded name.

Register WCPRST release history

NA013 introduced the WCPRST register.

Related registers

There are no related registers.

Related logs

There are no related logs.

Extension registers

There are no extension registers.

Register WCREC

The who's calling name recorded (WCREC) register counts WC feature SN recordings. The WCREC register increments when a calling party completes a name recording through the SN and the SN sends the Recording Done tone.

Register WCREC release history

NA013 introduced the WCREC register.

Related registers

There are no related registers.

Related logs

There are no related logs.

Extension registers

There are no extension registers.

Register WCSCRN

The who's calling screened call (WCSCRN) register counts the number of times that subscribers screen WC calls. The WCPSCRN register increments when the WC subscriber presses a valid key to screen a call.

Register WCSCRN release history

NA013 introduced the WCSCRN register.

Related registers

There are no related registers.

Related logs

There are no related logs.

Extension registers

There are no extension registers.

Register WCT1

The who's calling timer one (WCT1) register increments when the T1 timer expires. The T1 timer determines the maximum delay for the SN to accept a call from the switch.

Register WCT1 release history

NA013 introduced the WCT1 register.

Related registers

There are no related registers.

Related logs

The WHC601 log generates when the T1 timer expires.

Extension registers

There are no extension registers.

Register WCT2

The who's calling timer two (WCT2) register increments when the T2 timer expires. The T2 timer determines the maximum delay of recording the calling party's name at the SN.

Register WCT2 release history

NA013 introduced the WCT2 register.

Related registers

There are no related registers.

Related logs

The WHC601 log generates when the T2 timer expires.

Extension registers

There are no extension registers.

OM group WC (continued)

Register WCT3

The who's calling timer three (WCT3) register increments when the T3 timer expires. The T3 timer determines the maximum delay for the WC subscriber to answer a WC call.

Register WCT3 release history

NA013 introduced the WCT3 register.

Related registers

There are no related registers.

Related logs

There are no related logs.

Extension registers

There are no extension registers.

Register WCT4

The who's calling timer four (WCT4) register increments when the T4 timer expires. The T4 timer determines the maximum delay for the SN to wait for a WC subscriber acknowledgment.

Register WCT4 release history

NA013 introduced the WCT4 register.

Related registers

There are no related registers.

Related logs

There are no related logs.

Extension registers

There are no extension registers.

Register WCT5

The who's calling timer five (WCT5) register increments when the T5 timer expires. The T5 timer determines the maximum delay for the SN to wait for a WC subscriber to make a valid screening choice.

Register WCT5 release history

NA013 introduced the WCT5 register.

Related registers

There are no related registers.

Related logs

There are no related logs.

Extension registers

There are no extension registers.

OM group WIDEBAND

OM description

Wideband

The WIDEBAND counts the number of wideband call attempts on intertoll (IT) trunks on a DMS. The 23 different wideband possibilities are defined by $n \times 64$ kbytes for each value of n, from 2 to 24. One register increases for each value of wideband.

Note: Register WBAT1 is not used.

Release history

OM group WIDEBAND was introduced in BCS34.

DMSCCM04

Register TNBLOCK added for WIDEBAND ISUP IT and ISUP ATC trunks.

BCS36

Registers TWBINTRA, TWBINTER, and TWBSWTCH added.

BCS35

Registers TWBCONNT, TWBFAIL, TWBATB, and TWBGLR added for new measurements.

Registers

The following OM group WIDEBAND registers appear on the MAP terminal:

TWBATMPT	TWBCONNT	WBAT2	WBAT3
WBAT4	WBAT5	WBAT6	WBAT7
WBAT8	WBAT9	WBAT10	WBAT11
WBAT12	WBAT13	WBAT14	WBAT15
WBAT16	WBAT17	WBAT18	WBAT19
WBAT20	WBAT21	WBAT22	WBAT23
WBAT24	TNBLOCK	TWBFAIL	TWBATB
TWBGLR	TWBSWTCH	TWBINTER	TWBINTRA

Group structure

OM group WIDEBAND provides one tuple for each office.

Key field:

None

Info field:
None

Associated OM groups

There are no associated OM groups.

Associated functional groups

The LEC Wideband operating group is for OM group WIDEBAND.

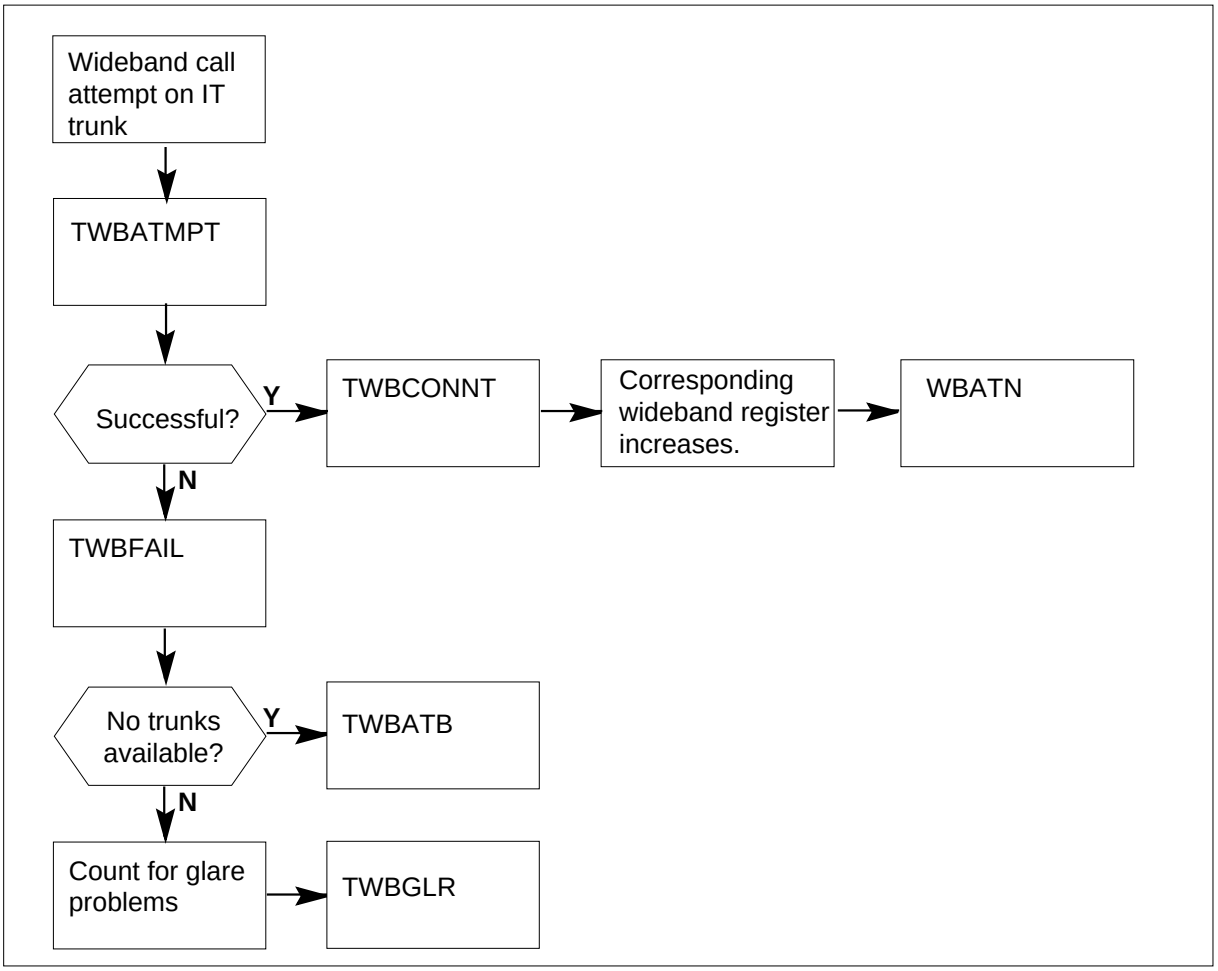
Associated functionality codes

The functionality codes for OM group WIDEBAND appear in the following table.

Functionality	Code
Dialable Wide Band Service	NTXR49AA
DWS Access to Carrier (Access Tandem)	NTXR66AA
DWS Intertoll ISUP	NTXS28AA
DMS-250 MIMT ISUP Agency	NTXM45AA
DMS-250 MPRI Agency	NTXM44AA

OM group WIDEBAND (continued)

OM group WIDEBAND registers



Register TNBLOCK

Total number blocked

Register TNBLOCK counts the total number of narrowband calls that the system blocks. The narrowband calls originate or terminate on the DWS ISUP IT or ISUP ATC trunk group. The user selects option BLOCKNB for this action to occur.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TWBATB

Total wideband call attempts blocked

When trunks are not available, overflow problems cause the wideband call attempts to fail. Register TWBATB counts the total number wideband call attempts that fail.

Register TWBATB release history

Register TWBATB was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TWBATMPT

Total wideband call attempts

Register TWBATMPT counts the total number of wideband call attempts.

Register TWBATMPT release history

Register TWBATMPT was introduced in BCS34.

Associated registers

Registers WBAT1 through to WBAT24

Register TWBATMPT = the sum of all WBATn.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TWBCONNT

Total wideband call connections

Register TWBCONNT counts the number of successful wideband call connections.

OM group WIDEBAND (continued)

Register TWBCONNT release history

Register TWBCONNT was introduced in BCS35.

Associated registers

Register TWBATMPT counts the total number of wideband attempts. The register counts all types of wideband attempts.

Register TWBFAIL counts the number of wideband attempts that fail.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TWBFAIL

Total wideband call failures

Register TWBFAIL counts the total number of wideband call attempts that fail.

Register TWBFAIL release history

Register TWBFAIL was introduced in BCS35.

Associated registers

Register TWBATMPT counts the total number of wideband call attempts. The register counts all types of wideband call attempts.

Register TWBCONNT counts the number of successful wideband call connections.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TWBGLR

Total wideband call glare problems

Register TWBGLR counts the number of wideband calls that have glare problems. Glare occurs when different users seize both ends of a line or trunk

at the same time. The wideband calls can continue to complete through route advance.

Register TWBGLR release history

Register TWBGLR was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TWBINTER

Total number of wideband inter-LATA call attempts

Register TWBINTER is increases for each wideband inter-LATA call attempt.

Register TWBINTER release history

Register TWBINTER was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TWBINTRA

Total number of wideband intra-LATA call attempts

Register TWBINTRA increases for each wideband intra-LATA call attempt.

Register TWBINTRA release history

Register TWBINTRA was introduced in BCS36.

Associated registers

There are no associated registers.

OM group WIDEBAND (continued)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TWBSWTCH

Total number of wideband intraswitch call attempts

Register TWBSWTCH increases for each wideband intraswitch call attempt.

Register TWBSWTCH release history

Register TWBSWTCH was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT2

2×64 kbyte wideband call attempts

Register WBAT2 increases for each 2×64 kbyte wideband call attempt.

Register WBAT2 release history

Register WBAT2 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT3

3×64 kbyte wideband call attempts

Register WBAT3 increases for each 3 × 64 kbyte wideband call attempt.

Register WBAT3 release history

Register WBAT3 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT4

4 × 64 kbyte wideband call attempts

Register WBAT4 increases for each 4 × 64 kbyte wideband call attempt.

Register WBAT4 release history

Register WBAT4 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT5

5 × 64 kbyte wideband call attempts

Register WBAT5 increases for each 5 × 64 kbyte wideband call attempt.

Register WBAT5 release history

Register WBAT5 was introduced in BCS34.

Associated registers

TWBATMPT

OM group WIDEBAND (continued)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT6

6 × 64 kbyte wideband call attempts

Register WBAT6 increases for each 6 × 64 kbyte wideband call attempt.

Register WBAT6 release history

Register WBAT6 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT7

7 × 64 kbyte wideband call attempts

Register WBAT7 increases for each 7 × 64 kbyte wideband call attempt.

Register WBAT7 release history

Register WBAT7 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT8

8 × 64 kbyte wideband call attempts

Register WBAT8 increases for each 8 × 64 kbyte wideband call attempt.

Register WBAT8 release history

Register WBAT8 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT9

9 × 64 kbyte wideband call attempts

Register WBAT9 increases for each 9 × 64 kbyte wideband call attempt.

Register WBAT9 release history

Register WBAT9 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT10

10 × 64 kbyte wideband call attempts

Register WBAT10 increases for each 10 × 64 kbyte wideband call attempt.

Register WBAT10 release history

Register WBAT10 was introduced in BCS34.

Associated registers

TWBATMPT

OM group WIDEBAND (continued)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT11

11 × 64 kbyte wideband call attempts

Register WBAT11 increases for each 11 × 64 kbyte wideband call attempt.

Register WBAT11 release history

Register WBAT11 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT12

12 × 64 kbyte wideband call attempts

Register WBAT12 increases for each 12 × 64 kbyte wideband call attempt.

Register WBAT12 release history

Register WBAT12 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers

Register WBAT13

13 × 64 kbyte wideband call attempts

Register WBAT13 increases for each 13 × 64 kbyte wideband call attempt.

Register WBAT13 release history

Register WBAT13 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT14

14 × 64 kbyte wideband call attempts

Register WBAT14 increases for each 14 × 64 kbyte wideband call attempt.

Register WBAT14 release history

Register WBAT14 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT15

15 × 64 kbyte wideband call attempts

Register WBAT15 increases for each 15 × 64 kbyte wideband call attempt.

Register WBAT15 release history

Register WBAT15 was introduced in BCS34.

Associated registers

TWBATMPT

OM group WIDEBAND (continued)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT16

16 × 64 kbyte wideband call attempts

Register WBAT16 increases for each 16 × 64 kbyte wideband call attempt.

Register WBAT16 release history

Register WBAT16 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT17

17 × 64 kbyte wideband call attempts

Register WBAT17 increases for each 17 × 64 kbyte wideband call attempt.

Register WBAT17 release history

Register WBAT17 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT18

18 × 64 kbyte wideband call attempts

Register WBAT18 increases for each 18 × 64 kbyte wideband call attempt.

Register WBAT18 release history

Register WBAT18 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT19

19 × 64 kbyte wideband call attempts

Register WBAT19 increases for each 19 × 64 kbyte wideband call attempt.

Register WBAT19 release history

Register WBAT19 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT20

20 × 64 kbyte wideband call attempts

Register WBAT20 increases for each 20 × 64 kbyte wideband call attempt.

Register WBAT20 release history

Register WBAT20 was introduced in BCS34.

Associated registers

TWBATMPT

OM group WIDEBAND (continued)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT21

21 × 64 kbyte wideband call attempts

Register WBAT21 is increases for each 21 × 64 kbyte wideband call attempt.

Register WBAT21 release history

Register WBAT21 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT22

22× 64 kbyte wideband call attempts

Register WBAT22 increases for each 22 × 64 kbyte wideband call attempt.

Register WBAT22 release history

Register WBAT22 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT23

23 × 64 kbyte wideband call attempts

Register WBAT23 increases for each 23 × 64 kbyte wideband call attempt.

Register WBAT23 release history

Register WBAT23 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register WBAT24

24 × 64 kbyte wideband call attempts

Register WBAT24 increases for each 24 × 64 kbyte wideband call attempt.

Register WBAT24 release history

Register WBAT24 was introduced in BCS34.

Associated registers

TWBATMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group WINTOPS

OM description

Wireless Intelligent Network - TOPS

Release history

SN07 (DMS)

OM group WINTOPS was created and replaces group IS41TOPS in SN07.

Registers

OM group WINTOPS registers display on the MAP terminal as follows:

```
WINBEGIN WINBEGI2 REQCONN REQCONN2
DISCONN DISCONN2 CONNECT CONNECT2
WINEND WINEND2 RESTIMR RESTIMR2
---------------------------------------------------------------------------------------------
ABANDON ERRCONN ERRDISC ERRSSFT
NOTLDNS NODATA RXLAFAIL SANTIMR
TLDNTIME
```

Group structure

OM group WINTOPS provides one tuple for each wireless network type.

Key field: IS41 and GSM. There are two tuples in OM group WINTOPS: one for IS-41 WIN and one for GSM CAMEL (Customized Applications for Mobile network Enhanced Logic).

Associated OM groups

Registers in groups WINTOPS and TC7WRLSS are pegged when TOPS provides a Wireless Intelligent Network service such as wireless ADACC with release.

Associated functional groups

None

Associated functionality codes

Functionality

TOPS Wireless RLT

Code

00034426

OM group WINTOPS (continued)

Registers for WINTOPS

The WINTOPS OM group consists of fifteen registers.

Register name (acronym)	Register name (expanded)	Information
WINBEGIN	Wireless Intelligent Network Begin	*Description:* WINBEGIN is a peg register which is incremented whenever TOPS receives an IS-41 AnalyzedInformation or a GSM InitialDP from an MSC. This signifies the beginning of the WIN TOPS call. *Associated registers:* WINBEGI2 *EXT registers:* WINBEGI2 *Register validation:* None *Associated logs:* None
REQCONN	Request Connection	*Description:* REQCONN is a peg register which is incremented whenever TOPS sends an IS-41 Connect Resource or GSM Establish Temporary Connection to the MSC. *Associated registers:* REQCONN2 *EXT registers:* REQCONN2 *Register validation:* None *Associated logs:* None
DISCONN	Disconnect	*Description:* DISCONN is a peg register. It is incremented when TOPS directs the MSC to release the trunk to TOPS. In IS-41, this is when TOPS sends the AnalyzedInformation RETURN RESULT with an Action Code of “disconnect call ”. In GSM, this is when TOPS sends the Disconnect Temporary Connection. This register is not normally pegged on an IS-41 call. When it is, it indicates the caller did not receive ADACC with release. This register is pegged on all successful GSM wireless ADACC with release calls. *Associated registers:* DISCONN2 *EXT registers:* DISCONN2 *Register validation:* None *Associated logs:* None

OM group WINTOPS (continued)

Register name (acronym)	Register name (expanded)	Information
CONNECT	Connect	*Description:* CONNECT is a peg register. It is incremented when TOPS directs the MSC to connect to the requested number. In IS-41, this is when TOPS sends the AnalyzedInformation RETURN RESULT. In GSM, this is when TOPS sends the Connect. *Associated registers:* CONNECT2 *EXT registers:* CONNECT2 *Register validation:* None *Associated logs:* None
WINEND	Wireless Intelligent Network End	*Description:* WINEND is a peg register which is incremented whenever TOPS receives a GSM Application End from the MSC. This signifies the end of a successful WIN TOPS call. This message is not used in the IS-41 call flow, so this OM is not pegged for IS-41 TOPS calls. Register DARLT in group TOPSISUP can also be used to count instances of successful ADACC with RLT. *Associated registers:* WINEND2 *EXT registers:* WINEND2 *Register validation:* None *Associated logs:* None
ERRCONN	Error Connect	*Description:* ERRCONN is a peg register. It is incremented on a WIN call when the MSC cannot connect to TOPS using the TLDN provided by TOPS. This might be due to translation or circuit failures at the MSC or in the network. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* TOPS131

OM group WINTOPS (continued)

Register name (acronym)	Register name (expanded)	Information
ERRDISC	Error Disconnect	*Description:* ERRDISC is a peg register. It is incremented on a WIN call when TOPS unexpectedly releases its trunk to the MSC. This register is only pegged on an IS-41 call. On a GSM call, registers WINBEGIN, REQCONN, and WINEND are pegged, but not DISCONN and CONNECT. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* TOPS131
ERRSSFT	Error Service Switching Function Timer	*Description:* ERRSSFT is a peg register. It is incremented on a WIN call when the MSC's SSFT timer expires. This timer ensures TOPS does not take too long to process the WIN call. TOPS can reset this timer using the ResetTimer message. This message is controlled by datafill in Table ISUPTRK. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* TOPS131
ABANDON	Abandon	*Description:* ABANDON is a peg register. It is incremented on a WIN call when the calling party disconnects before receiving ADACC with release. This is a common occurrence. The wireless caller can hang up while in queue for operator, or hang up because the operator couldn't find the listing, or hang up without accepting call completion. In all of these cases, ABANDON is pegged. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* None

OM group WINTOPS (continued)

Register name (acronym)	Register name (expanded)	Information
RESTIMR	Reset Timer	*Description:* RESTIMR is a peg register which is incremented whenever TOPS sends an IS-41 or GSM Reset Timer to the MSC. *Associated registers:* RESTIMR2 *EXT registers:* RESTIMR2 *Register validation:* None *Associated logs:* None
NOTLDNS	No Temporary local directory numbers	*Description:* NOTLDNS is a peg register which is incremented whenever TOPS cannot obtain an idle temporary local directory number (TLDN) from Table TOPSTLDN. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* TOPS131
NODATA	No TCAP data	*Description:* NODATA is a peg register which is incremented whenever TOPS cannot locate a call's IS-41 or GSM TCAP data in the temporary table. *Associated registers:* Register RXLAFAIL is always pegged when register NODATA is pegged, since the original called number cannot be determined, and a default of 411 must be used. *EXT registers:* None *Register validation:* None *Associated logs:* TOPS131

OM group WINTOPS (end)

Register name (acronym)	Register name (expanded)	Information
RXLAFAIL	Retranslation Failure	*Description:* RXLAFAIL is a peg register which is incremented when a TOPS IS-41 or GSM call arrives, but TOPS cannot find the original called number and must use a default of 411. This register can be pegged in conjunction with NODATA, if the reason the original called number cannot be found is that there is no extension block. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* TOPS131 is generated if the reason for using the default 411 is that the TCAP data was not found.
SANTIMR	TOPS sanity timer expiration	*Description:* SANTIMR is a peg register which is incremented whenever the TOPS IS-41 or GSM call end sanity timer expires. TOPS starts this timer after sending the IS-41 AnalyzedInformation RETURN RESULT or GSM Connect to the MSC. If the MSC does not release the trunk and end the TOPS call before the timer expires, TOPS ends its call and frees resources. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* TOPS131
TLDNTIME	TLDN time-out	*Description:* TLDNTIME is a peg register which is incremented whenever a TLDN has been allocated for more than 30 seconds. The TLDN is put in the TLDN idle queue. This allows the TLDN list to be cleaned up if some MSC calls end before routing to TOPS. *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* None

OM group XIPCOMID

OM description

Extended peripheral module (XPM) internet protocol (IP) data communications identifier.

This OM group provides general peg counts for TOPS IP data communication statistics on a COMID basis.

Release history

OM group XIPCOMID was introduced in TOPS13.

Registers

OM group XIPCOMID registers display on the MAP terminal as follows:

```
>omshow xipcomid active

XIPCOMID
CLASS:   ACTIVE
START:1999/03/10 16:30:00 TUE; STOP: 1999/03/10 16:38:07 TUE;
SLOWSAMPLES: 5; FASTSAMPLES: 49;

     KEY (IP_COMID_RANGE)
          UMSSN     UMSSN2     UMSSNF     UMSRC
         UMSRC2     UMSRCF     TMSSND   TMSSND2
         TMSSNF      TMSRC     TMSRC2    TMSRCF

     0
               0          0          0         0
               0          0          0         0
               0          0          0         0

     1
               0          0          0         0
               0          0          0         0
               0          0          0         0
```

Group structure

OM group XIPCOMID provides a single tuple for each COMID element datafilled in table IPCOMID.

Key field:
IP_COMID_RANGE

Info field:
None

Associated OM groups

The following OM groups are associated with XIPCOMID:

- XIPDCOM
- XIPSVCS
- XIPMISC

Associated functional groups

The following functional groups are associated with OM group XIPCOMID:

- OSB00001

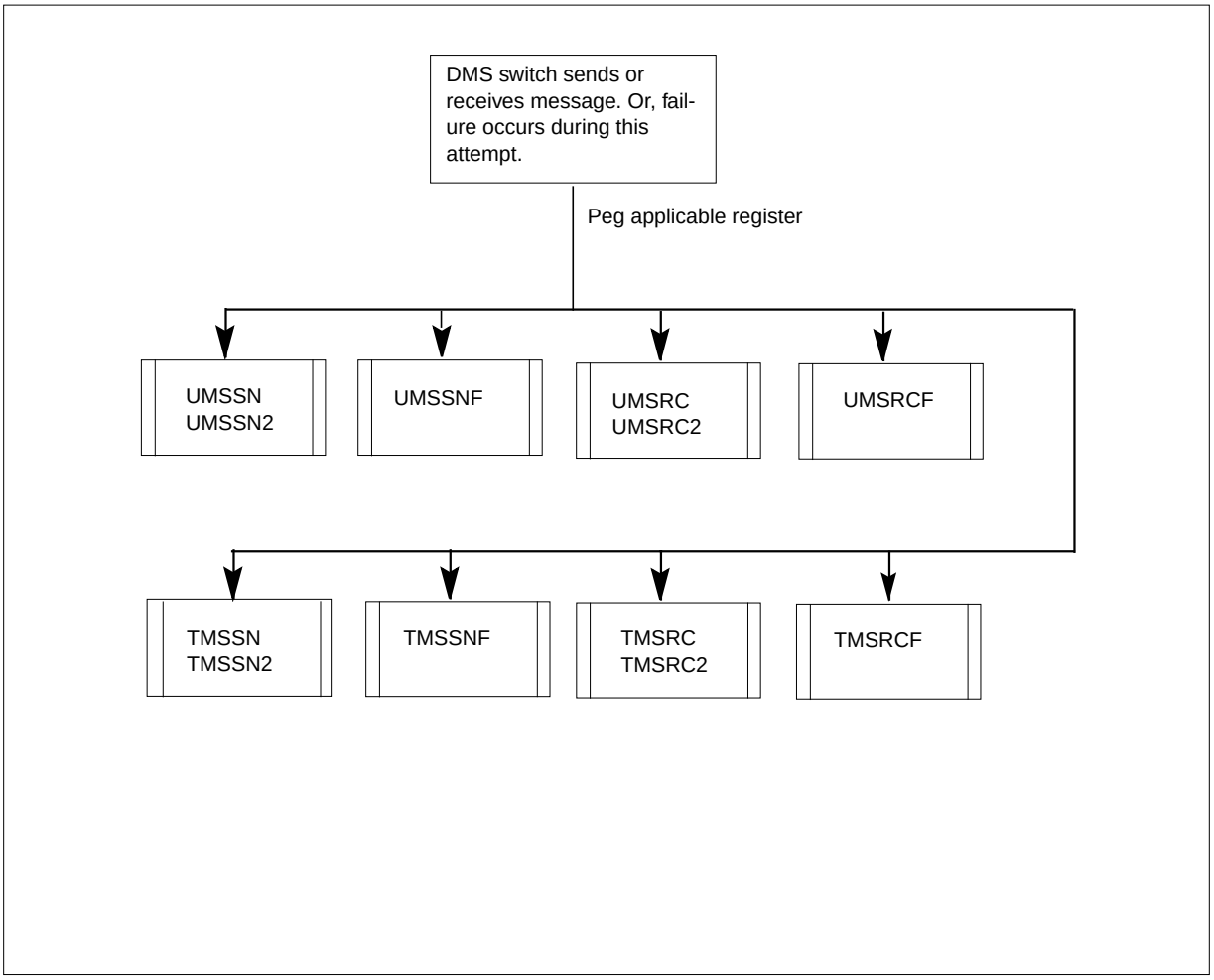
Associated functionality codes

The functionality codes associated with OM group XIPCOMID are shown in the following table:

Functionality	Code
TOPS	OSB00001

OM group XIPCOMID (continued)

OM group XIPCOMID registers



Register TMSRC

Transmission control protocol (TCP) message received

Register TMSRC is pegged when a TCP message for a particular communication ID is received in the CM from the XPM which originated from a node on the network

Register TMSRC release history

Register TMSRC was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

TMSRC2

Register TMSRCF

TCP message receive failure

Register TMSRCF is pegged when a TCP message, received in the CM from the XPM for a particular communication ID, has a corrupt data.

Note, if the message is severely corrupted this OM register may not be pegged.

Register TMSRCF release history

Register TMSRCF was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

None

Register TMSSND

TCP message sent

Register TMSSND is pegged when a TCP message has been sent to the XPM for transmission to a node on the ethernet network for a particular COMID.

Register TMSSND release history

Register TMSSND was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

TMSSND2

OM group XIPCOMID (continued)

Register TMSSNF

TCP message send failure

Register TMSSNF is pegged when a failure occurs when attempting to send a TCP message to the XPM for transmission to a node on the ethernet network for a particular communication ID.

Register TMSSNF release history

Register TMSSNF was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

None

Register UMSRC

User datagram protocol (UDP) message received

Register UMSRC is pegged when a UDP message for a particular communication ID is received in the CM from the XPM which originated from a node on the network.

Register UMSRC release history

Register UMSRC was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

UMSRC2

Register UMSRCF

UDP message receive failure

Register UMSRCF is pegged when UDP message, received in the CM from the XPM for a particular communication ID, has corrupt data.

Note, if the message is severely corrupted this OM register may not be pegged.

Register UMSRCF release history

Register UMSRCF was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

None

Register UMSSN

UDP message sent

Register UMSSN is pegged when a UDP message has been sent to the XPM for transmission to a node on the ethernet network for a particular communication ID.

Register UMSSN release history

Register UMSSN was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

UMSSN2

Register UMSSNF

UDP message send failure

Register UMSSNF is pegged when a failure occurs when attempting to send a UDP message to the XPM for transmission to a node on the ethernet network for a particular communication ID.

Register UMSSNF release history

Register UMSSNF was introduced in TOPS13.

OM group XIPCOMID (end)

Associated registers

None

Associated logs

None

Extension registers

None

OM group XIPDCOM

OM description

Extended peripheral module (XPM) internet protocol (IP) data communications.

This OM group provides general peg counts for the messageing related statistics for TOPS IP data communications.

Release history

OM group XIPDCOM was introduced in TOPS13.

Registers

OM group XIPDCOM registers display on the MAP terminal as follows:

```
>omshow xipdcom active

XIPDCOM
CLASS:   ACTIVE
START:1999/10/26 09:00:00 TUE; STOP: 1999/10/26 09:15:03 TUE;
SLOWSAMPLES: 5; FASTSAMPLES: 49;

          UMSGSN    UMSGSN2    UMSGSNF    UMSGRC
        UMSGRC2    UMSGRCF     TMSGSN   TMSGSN2
        TMSGSNF     TMSGRC    TMSGRC2   TMSGRCF
         ICREQS    ICREQSF    ICREPRC    ICREPF

              0          0          0        0
              0          0          0        0
              0          0          0        0
              0          0          0        0
```

Group structure

OM group XIPDCOM provides one tuple for all peg counts.

Key field:
None

Info field:
None

OM group XIPDCOM (continued)

Associated OM groups

The following OM groups are associated with XIPDCOM:

- XIPCOMID
- XIPSVCS
- XIPMISC

Associated functional groups

The following functional groups are associated with OM group XIPDCOM:

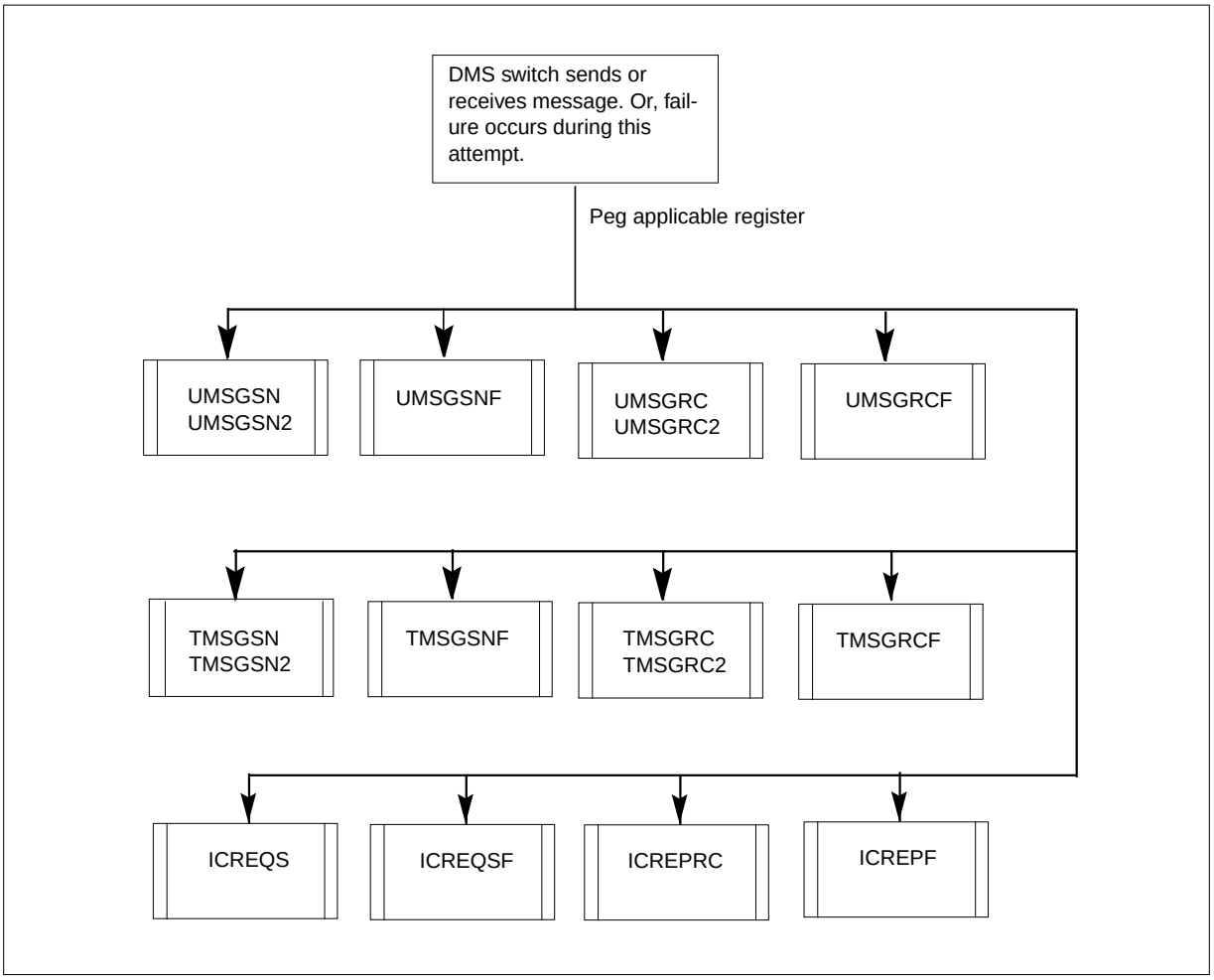
- OSB00001

Associated functionality codes

The functionality codes associated with OM group XIPDCOM are shown in the following table:

Functionality	Code
TOPS	OSB00001

OM group XIPDCOM registers



Register ICREPF

Internet control message protocol (ICMP) request reply failure

Register ICREPF is pegged when a failure occurs in a reply to an ICMP request.

Register ICREPF release history

Register ICPREPF was introduced in TOPS13.

Associated registers

None

OM group XIPDCOM (continued)

Associated logs

None

Extension registers

None

Register ICREPRC

ICMP reply reply received

Register ICREPRC is pegged when a reply to an ICMP reply is received in the CM.

Register ICREPRC release history

Register ICREPRC was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

None

Register ICREQS

ICMP request sent

Register ICREQS is pegged when an ICMP request is sent to the XPM from the CM.

Register ICREQS release history

Register ICREQS was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

None

Register ICREQSF

ICMP request send failure

Register ICREQSF is pegged when a ICMP request was not able to be sent to the XPM.

Register ICREQSF release history

Register ICREQSF was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

None

Register TMSGRC

Transmission control protocol (TCP) message received

Register TMSGRC is pegged when a TCP message is received in the CM from the XPM which originated from a node on the network.

Register TMSGRC release history

Register TMSGRC was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

TMSGRC2

Register TMSGRCF

TCP message receive failure

Register TMSGRCF is pegged when a TCP message, received in the CM from the XPM, has corrupt data.

Note, if the message is severely corrupted. this OM register is not pegged.

OM group XIPDCOM (continued)

Register TMSGRCF release history

Register TMSGRCF was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

None

Register TMSGSN

TCP message sent

Register TMSGSN is pegged when a TCP message has been sent to the XPM for transmission to a node on the ethernet network.

Register TMSGSN release history

Register TMSGSN was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

TMSGSN2

Register TMSGSNF

TCP message send failure

Register TMSGSNF is pegged when a failure occurs when attempting to send a TCP message to the XPM for transmission to a node on the ethernet network.

Register TMSGSNF release history

Register TMSGSNF was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

None

Register UMSGRC

User datagram protocol (UDP) message received

Register UMSGRC is pegged when a UDP message is received in the CM from the XPM. which originated from a node on the network.

Register UMSGRC release history

Register UMSGRC was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

UMSGRC2

Register UMSGRCF

UDP message receive failure

Register UMSGRCF is pegged when a UDP message, received in the CM from the XPM, has corrupt data.

Note, if the message is severely corrupted, this OM register is not pegged.

Register UMSGRCF release history

Register UMSGRCF was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

None

OM group XIPDCOM (end)

Register UMSGSN

UDP message sent

Register UMSGSN is pegged when a UDP message has been sent to the XPM for transmission to a node on the ethernet network.

Register UMSGSN release history

Register UMSGSN was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

UMSGSN2

Register UMSGSNF

UDP message send failure

Register UMSGSNF is pegged when a failure occurs when attempting to send a UDP message to the XPM for transmission to a node on the ethernet network.

Register UMSGSNF release history

Register UMSGSNF was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

None

OM group XIPMISC

OM description

Extended peripheral module (XPM) internet protocol (IP) data communications miscellaneous items.

This OM group provides general peg counts for TOPS IP data communication miscellaneous items.

Release history

OM group XIPMISC was introduced in TOPS13.

Registers

OM group XIPMISC registers display on the MAP terminal as follows:

```
>omshow xipmisc active

XIPMISC
CLASS:   ACTIVE
START:1999/03/10 16:30:00 TUE; STOP: 1999/03/10 16:38:07 TUE;
SLOWSAMPLES: 5; FASTSAMPLES: 49;

           PKTSN    PKTSN2    PKTSNER     PKTRC
         PKTRC2   PKTRCER      BUFERR

              0         0          0         0
              0         0          0
```

Group structure

OM group XIPMISC provides a single tuple for all peg counts.

Key field:
None

Info field:
None

OM group XIPMISC (continued)

Associated OM groups

The following OM groups are associated with XIPMISC:

- XIPDCOM
- XIPCOMID
- XIPSVCS

Associated functional groups

The following functional groups are associated with OM group XIPMISC:

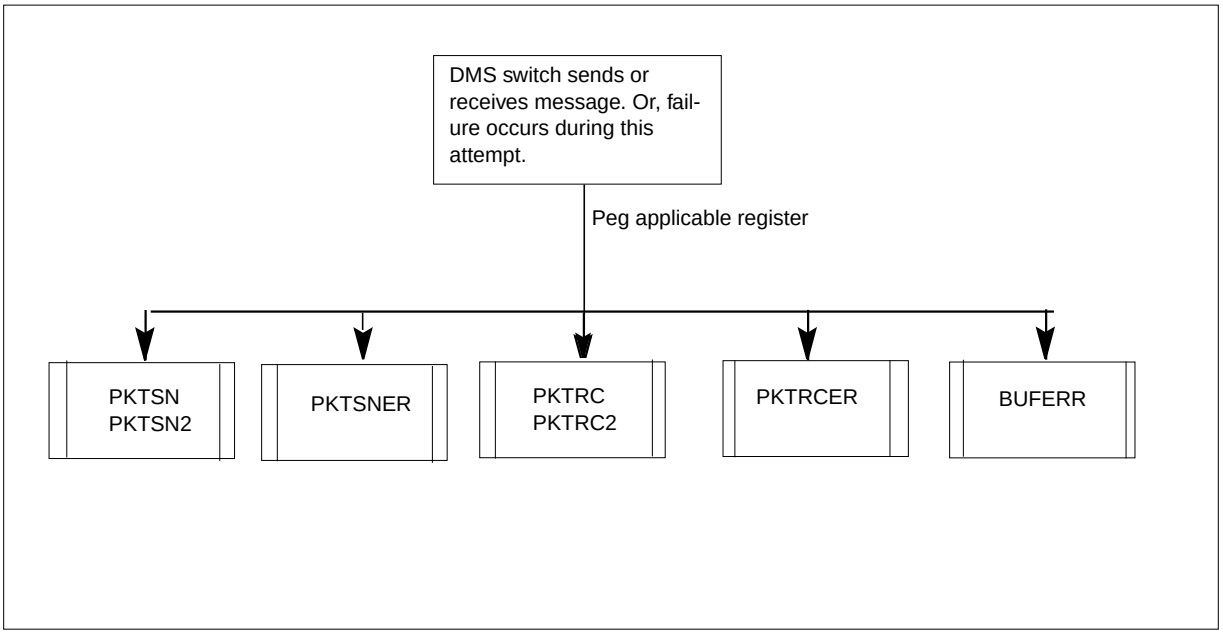
- OSB00001

Associated functionality codes

The functionality codes associated with OM group XIPMISC are shown in the following table:

Functionality	Code
TOPS	OSB00001

OM group XIPMISC registers



Register BUFERR

Buffer error

Register BUFERR is pegged when this activity is unable to obtain a buffer to store messages received from an XPM for this activity. The activity is TOPS IP data communications.

Register BUFERR release history

Register BUFERR was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

None

Register PKTRC

Packet received

Register PKTRC is pegged when a packet is received from the XPM. A UDP, TCP, or ICMP message sent to the XPM results in one or more packets. A message is composed of one or more packets.

Register PKTRC release history

Register PKTRC was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

PKTRC2

Register PKTRCER

Packet receive error

OM group XIPMISC (continued)

Register PKTRCER is pegged when an error occurred in a packet received from the XPM. A UDP, TCP, or ICMP message sent from the XPM results in one or more packets. A message is composed of one or more packets.

Register PKTRCER release history

Register PKTRCER was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

None

Register PKTSN

Packet sent

Register PKTSN is pegged when a packet is sent to the XPM. A UDP, TCP, or ICMP message sent to the XPM results in one or more packets. A message is composed of one or more packets.

Register PKTSN release history

Register PKTSN was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

PKTSN2

Register PKTSNER

Packet send error

Register PKTSNER is pegged when an error occurred when attempting to send a packet to the XPM. A UDP, TCP, or ICMP message sent from the XPM results in one or more packets. A message is composed of one or more packets.

Register PKTSNER release history

Register PKTSNER was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

None

OM group XIPSVCS

OM description

Extended peripheral module (XPM) internet protocol (IP) data communications identifier.

This OM group provides general peg counts for TOPS IP data communication statistics on an IP services basis.

Release history

OM group XIPSVCS was introduced in TOPS13.

Registers

OM group XIPSVCS registers display on the MAP terminal as follows:

```
>omshow xipsvcs active

XIPSVCS
CLASS:   ACTIVE
START:1999/03/10 16:30:00 TUE; STOP: 1999/03/10 16:38:07 TUE;
SLOWSAMPLES: 5; FASTSAMPLES: 49;

     KEY (IP_SERVICES_RANGE)
        UMSGSND   UMSGSND2    UMSGSNDF   UMSGRCV
        UMSGRCV2  UMSGRCVF     TMSGSND  TMSGSND2
        TMSGSNDF   TMSGRCV    TMSGRCV2  TMSGRCVF

     1 TOPSOPP
               0          0          0         0
               0          0          0         0
               0          0          0         0

     2 QMSMIS
               0          0          0         0
               0          0          0         0
               0          0          0         0
```

Group structure

OM group XIPSVCS provides a single tuple for each element datafilled in table IPSVCS.

Key field:
IP_SERVICES_RANGE

Info field:
None

Associated OM groups

The following OM groups are associated with XIPSVCS:

- XIPDCOM
- XIPCOMID
- XIPMISC

Associated functional groups

The following functional groups are associated with OM group XIPSVCS:

- OSB00001

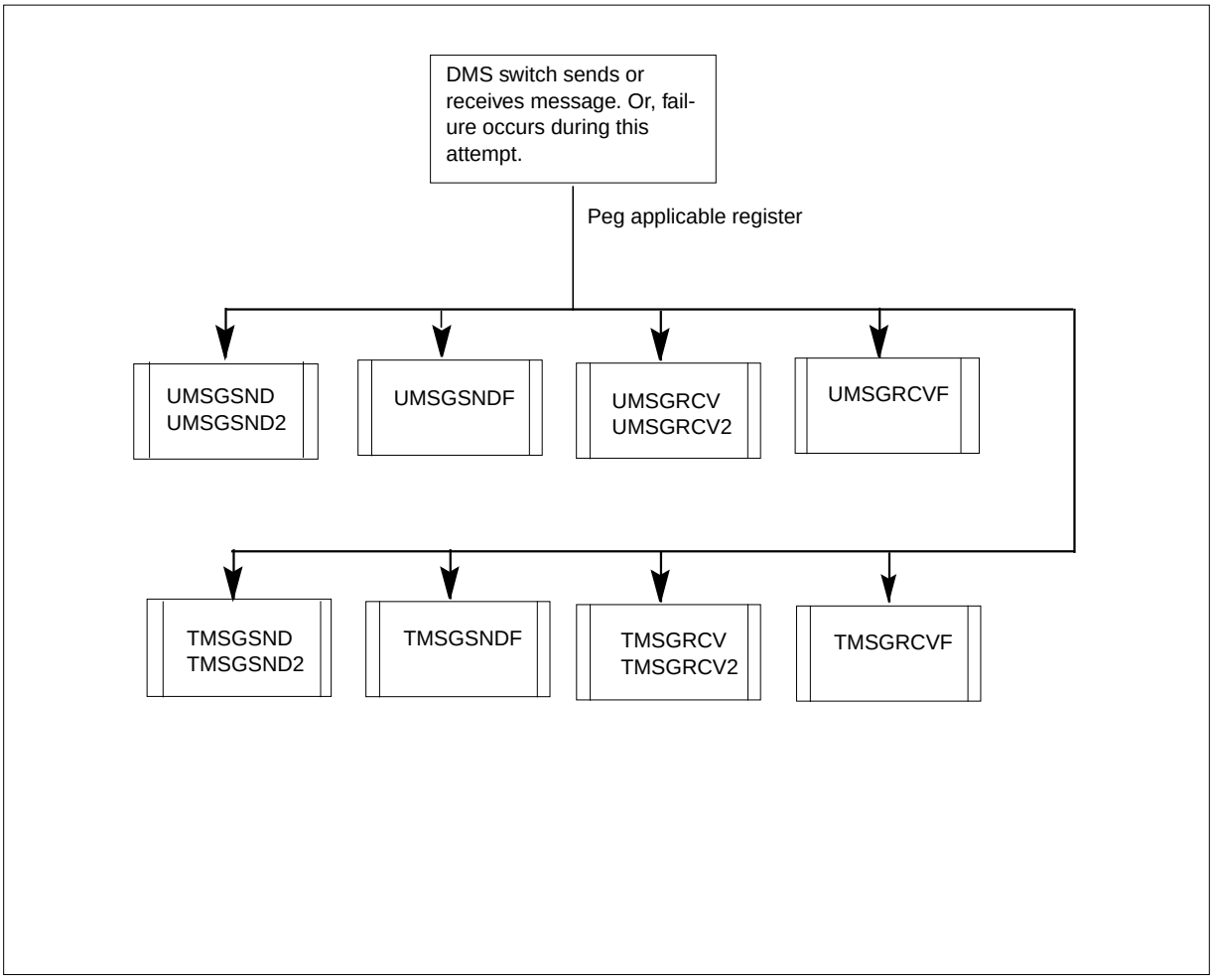
Associated functionality codes

The functionality codes associated with OM group XIPSVCS are shown in the following table:

Functionality	Code
TOPS	OSB00001

OM group XIPSVCS (continued)

OM group XIPSVCS registers



Register TMSGRCV

Transmission control protocol (TCP) message received

Register TMSGRCV is pegged when a TCP message for a particular service is received in the CM from the XPM which originated from a node on the network.

Register TMSGRCV release history

Register TMSGRCV was introduced in TOPS13.

Associated registers

None

Associated logs
None

Extension registers
TMSGRCV2

Register TMSGRCVF
TCP message receive failure

Register TMSGRCVF is pegged when a TCP message, received in the CM from the XPM for a particular service, has corrupt data.

Note, if the message is severely corrupted this OM register is not pegged.

Register TMSGRCVF release history
Register TMSGRCVF was introduced in TOPS13.

Associated registers
None

Associated logs
None

Extension registers
None

Register TMSGSND
TCP message sent

Register TMSGSND is pegged when a TCP message has been sent to the XPM for transmission to a node on the ethernet network for a particular service.

Register TMSGSND release history
Register TMSGSND was introduced in TOPS13.

Associated registers
None

Associated logs
None

Extension registers
TMSGSND2

OM group XIPSVCS (continued)

Register TMSGSNDF

TCP message send failure

Register TMSGSNDF is pegged when a failure occurs when attempting to send a TCP message to the XPM for transmission to a node on the ethernet network for a particular communication ID.

Register TMSGSNDF release history

Register TMSGSNDF was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

None

Register UMSGRCV

User datagram protocol (UDP) message received

Register UMSGRCV is pegged when a UDP message for a particular service is received in the CM from the XPM which originated from a node on the network.

Register UMSGRCV release history

Register UMSGRCV was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

UMSGRCV2

Register UMSGRCVF

UDP message receive failure

Register UMSGRCVF is pegged when UDP message, received in the CM from the XPM for a particular service, has corrupt data..

Note, if the message is severely corrupted this OM register is not pegged.

Register UMSGRCVF release history

Register UMSGRCVF was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

None

Register UMSGSND

UDP message sent

Register UMSGSND is pegged when a UDP message has been sent to the XPM for transmission to a node on the ethernet network for a particular service.

Register UMSGSND release history

Register UMSGSND was introduced in TOPS13.

Associated registers

None

Associated logs

None

Extension registers

UMSGSND2

Register UMSGSNDF

UDP message send failure

Register UMSGSNDF is pegged when a failure occurs when attempting to send a UDP message to the XPM for transmission to a node on the ethernet network for a particular service.

Register UMSGSNDF release history

Register UMSGSNDF was introduced in TOPS13.

OM group XIPSVCS (end)

Associated registers

None

Associated logs

None

Extension registers

None

OM group XLIUL3

OM description

XLIU layer 3 OMs (XLIUL3)

The OM group XLIUL3 counts the number of packets that the XLIU receive and transmits. The OM group XLIUL3 also counts the number of originating, terminating, and not complete virtual call attempts.

The system can use these measurements to monitor packet traffic on the XLIU, and to indicate problems on XLIU links.

Release history

Registers PKTINT and PKTINT2 were added in NA014.

Registers DWCGST, DWCGST2, CALLCGST, CALLCGS2, PKTDROP, and PKTDROP2 were introduced in NA005.

The OM group XLIUL3 was introduced in NA002.

Registers

The OM group XLIUL3 registers appear on the MAP terminal as follows:

PKTRXRR	PKTRXRR2	PKTRXRNR	PKTRXRN2
PKTRXDAT	PKTRXDA2	PKTTXRR	PKTTXRR2
PKTTXRNR	PKTTXRN2	PKTTXDAT	PKTTXDA2
VCORIG	VCTERM	VCBLOCK	VCDENY
VCCLEAR	VCOVLD	DWCGST	DWCGST2
CALLCGST	CALLCGS2	PKTDROP	PKTDROP2
PKTINT	PKTINT2		

Group structure

The OM group XLIUL3

Table XLIUL3 provides one tuple for each XLIU datafilled in table LIUINV.

Key field:
Integer value, range 0 to total number of tuples minus one.

Info field:
Node name and number. Node name is XLIU. Number ranges from 0 to 511.

OM group XLIUL3 (continued)

Associated OM groups

There are no associated OM groups.

Associated functional groups

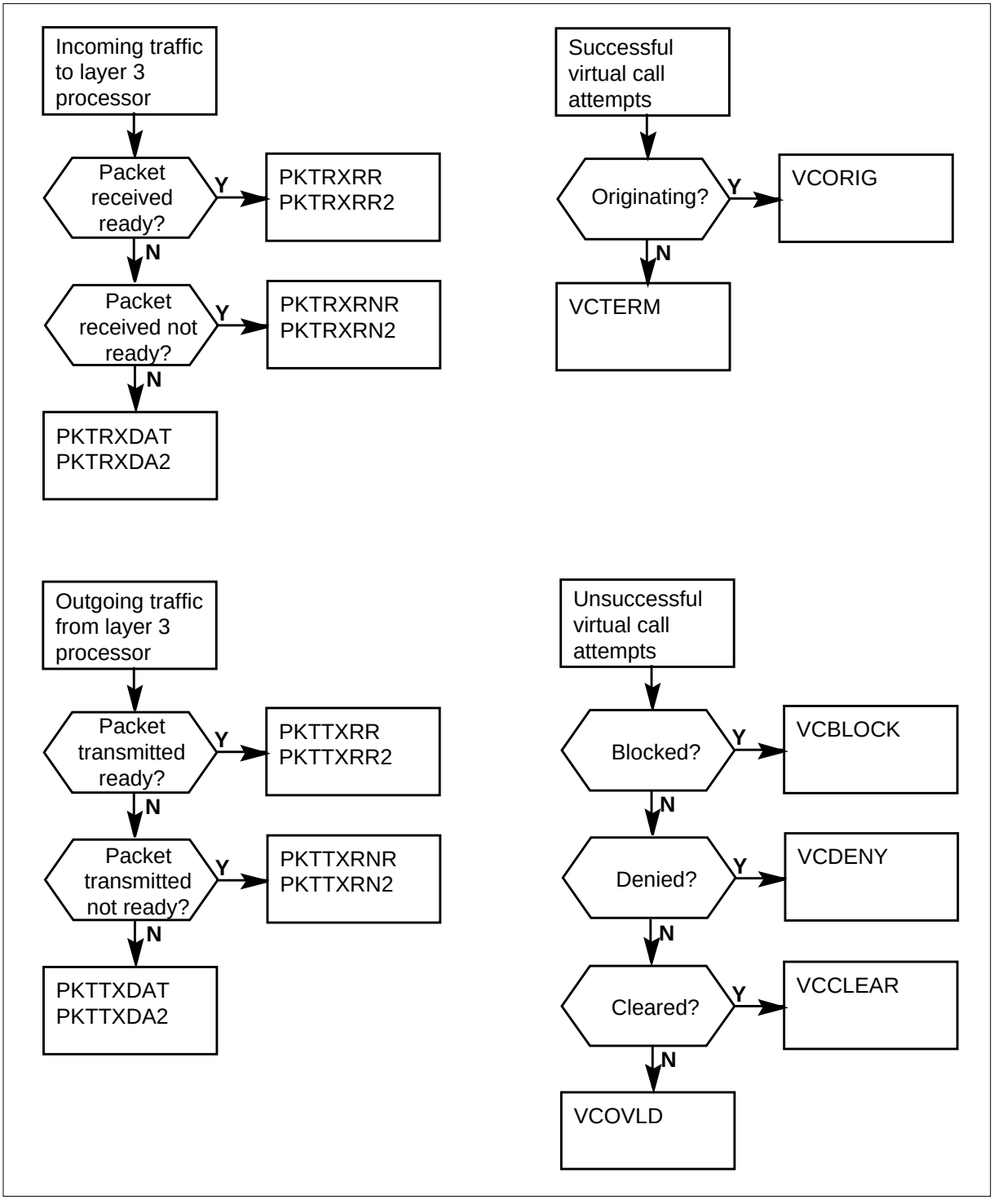
The DMS Packet Handler functional group associates with OM group XLIUL3.

Associated functionality codes

The associated functionality codes for the OM group XLIUL3 appear in the following table.

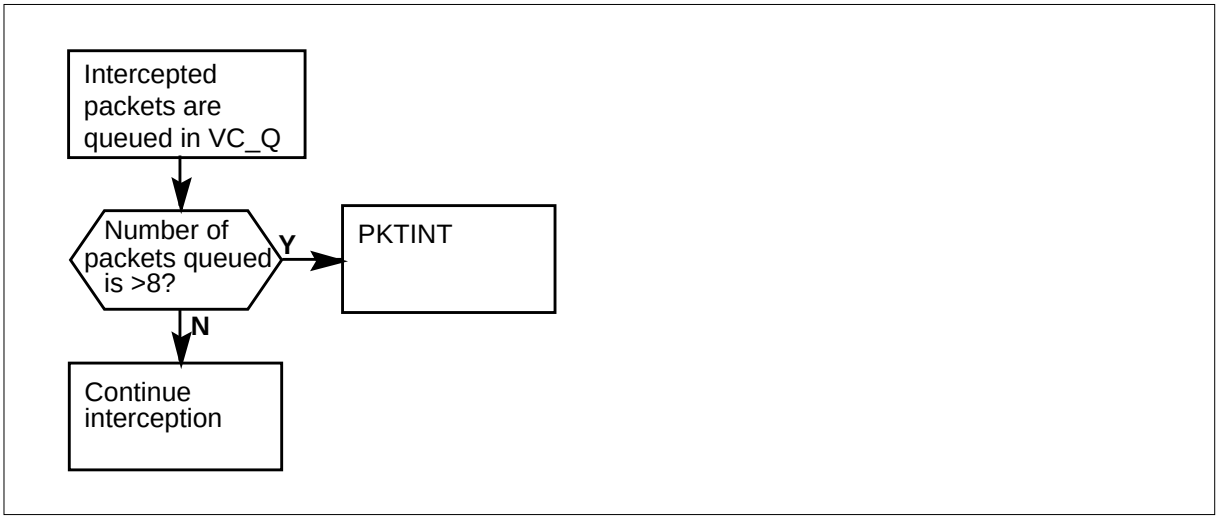
Functionality	Code
NI0 NI-1 Packet	NI000010

The OM group XLIUL3 registers



OM group XLIUL3 (continued)

The OM group XLIUL3 registers (continued)



Register PKTINT

Register intercepted packets dropped: (PKTINT)

Register PKTINT is the total number of intercepted packets dropped due to congestion or overflow of VC_Q from virtual FSM.

Register PKTINT release history

Register PKTINT was introduced in NA014.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register PKTINT2

Register PKTINT2

Register intercepted packets dropped: (PKTINT2)

To determine total intercepted packets dropped, multiply register PKTINT2 by 65 536 and add register PKTINT

Register PKTINT2 release history

Register PKTINT2 was introduced in NA014.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

None

Register PKTRXRR

Register packets received: RR (PKTRXRR)

Register PKTRXRR is the total number of Received Ready (ACK) packets that the layer 3 processor receives.

Register PKTRXRR release history

Register PKTRXRR was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register PKTRXRR2

Register PKTRXRR2

Register packets received: RR (extension) (PKTRXRR2)

To determine total received RR packets, multiply register PKTRXRR2 by 65 536 and add register PKTRXRR.

Register PKTRXRR2 release history

Register PKTRXRR2 was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group XLIUL3 (continued)

Extension registers

There are no extension registers.

Register PKTRXRNR

Register packets received: RNR (PKTRXRNR)

Register PKTRXRNR is the total number of Received Not Ready (NACK) packets that the layer 3 processor receives.

Register PKTRXRNR release history

Register PKTRXRNR was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register PKTRXRN2

Register PKTRXRN2

Register packets received: RNR (extension) (PKTRXRN2)

To determine total RNR received packets, multiply register PKTRXRN2 by 65 536 and add register PKTRXRNR

Register PKTRXRN2 release history

Register PKTRXRN2 was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PKTRXDAT

Register packets received: data (PKTRXDAT)

Register PKTRXDAT is the total number of data packets that the layer 3 processor receives.

Register PKTRXDAT release history

Register PKTRXDAT was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register PKTRXDA2

Register PKTRXDA2

Register packets received: data (extension) (PKTRXDA2)

To determine total received data packets, multiply register PKTRXDA2 by 65 536 and add register PKTRXDAT.

Register PKTRXDA2 release history

Register PKTRXDA2 was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PKTTXRR

Register packets transmitted: RR (PKTTXRR)

Register PKTTXRR is the total number of Received Ready (ACK) packets transmitted that the layer 3 processor transmits.

Register PKTXRR release history

Register PKTTXRR was introduced in NA002.

OM group XLIUL3 (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register PKTTXRR2

Register PKTTXRR2

Register packets transmitted: RR (extension) (PKTTXRR2)

To determine total transmitted RR packets, multiply register PKTTXRR2 by 65 536 and add register PKTTXRR.

Register PKTTXRR release history

Register PKTTXRR2 was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PKTTXRNR

Register packets transmitted: RNR (PKTTXRNR)

Register PKTTXRNR is the total number of Received Not Ready (NACK) packets that the layer 3 processor transmits.

Register PKTTXRNR release history

Register PKTTXRNR was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register PKTTXRN2

Register PKTTXRN2

Register packets transmitted: RNR (extension) (PKTTXRN2)

To determine total transmitted RNR packets, multiply register PKTTXRN2 by 65 536 and add register PKTTXRNR.

Register PKTTXRN2 release history

Register PKTTXRN2 was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PKTTXDAT

Register packets transmitted: data (PKTTXDAT)

Register PKTTXDAT is the total number of data packets that the layer 3 processor transmits.

Register PKTTXDAT release history

Register PKTTXDAT was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register PKTTXDA2

Register PKTTXDA2

Register packets transmitted: data (extension) (PKTTXDA2)

OM group XLIUL3 (continued)

To determine total transmitted data packets, multiply register PKTTXDA2 by 65 536 and add register PKTTXDAT.

Register PKTTXDA2 release history

Register PKTTXDA2 was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VCORIG

Register virtual call attempts: originating (VCORIG)

Register VCIORG is the total number of call request packets that the layer 3 processor sends to the computing module (CM). This total includes call request packets that are both complete and not complete.

Register VCORIG release history

Register VCORIG was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VCTERM

Register virtual call attempts: terminating (VCTERM)

Register VCTERM is the total number of call request packets the CM receives from the layer 3 processor. This total includes call request packets that are both complete and not complete.

Register VCTERM release history

Register VCTERM was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VCBLOCK

Register unsuccessful virtual call attempts: blocking (VCBLOCK)

Register VCBLOCK is the total number of blocked call request packets for switched virtual circuits (SVC). This total includes:

- outgoing DTE call requests. No call slot and the system cannot assign LCN.
- incoming DTE call requests. The system cannot get User Data Area (UDA), cannot assign LCN, and extension byte does not match.

Register VCBLOCK release history

Register VCBLOCK was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VCDENY

Register unsuccessful virtual call attempts: denied (VCDENY)

Register VCDENY is the total number of denied call request packets for SVCs that the system clears. The system clears in direct response to the SVC call.

Register VCDENY release history

Register VCDENY was introduced in NA002.

Associated registers

There are no associated registers.

OM group XLIUL3 (continued)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VCCLEAR

Register unsuccessful virtual call attempts: clearing (VCCLEAR)

Register VCCLEAR is the total number of call request packets for SVCs that the system clears. These are packets that a link clear message clears. The layer 3 processor generates the link clear message.

Register VCCLEAR release history

Register VCCLEAR was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register VCOVLD

Register unsuccessful virtual call attempts: overload (VCOVLD)

Register VCOVLD is the total number of call request packets that the system discards. The system discards the packets because of system overload for both SVCs and permanent virtual circuits (PVC).

Register VCOVLD release history

Register VCOVLD was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register DWCGST

Register Mild XLIU Congestion (DWCGST)

Register DWCGST counts the number of times free buffer pools in layers 2 and 3 drop below the weak congestion threshold. This condition causes the dynamic window algorithm to take effect. The dynamic window algorithm reduces the layer 3 processor window size to throttle the traffic rate.

Register DWCGST release history

Register DWCGST was introduced in NA005.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register DWCGS2

Register DWCGS2

Register Mild XLIU Congestion (extension) (DWCGS2)

To determine the total number of times free buffer pools drop below the weak congestion threshold, perform the following calculation. Multiply register DWCGS2 by 65 536 and add register DWCGST. The free buffer pools are in layers 2 and 3.

Register DWCGST release history

Register DWCGST was introduced in NA005.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CALLCGST

Register Call Congestion (CALLCGST)

OM group XLIUL3 (continued)

Register CALLCGST counts the number of times the system delays a call in congestion. The system delays the calls because packets in the XLIU layer 3 wait for reception by the data terminal equipment (DTE).

Register CALLCGST release history

Register CALLCGST was introduced in NA005.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register CALLCGS2

Register CALLCGS2

Register Call Congestion (extension) (CALLCGS2)

To determine total number of times the system delays a call in congestion because packets must wait for reception, perform the following calculation. Multiply reigster CALLCGS2 by 65 536 and add register CALLCGST.

Register PKTTXDA2 release history

Register CALLCGS2 was introduced in NA005.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PKTDROP

Register Packets Dropped Due to Congestion (PKTDROP)

Register PKTDROP counts the number of packets that the system drops at layer 3 because of XLIU congestion. Congestion in the XLIU can have the following causes:

- excessive incoming traffic
- traffic congestion in the layer 2 processor
- traffic that the system drops because the DTE transmits an RNR.

Register PKTDROP release history

Register PKTDROP was introduced in NA005.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register PKTDROP2

Register PKTDROP2

Register Call Congestion (extension) (PKTDROP2)

To determine the total number of packets that the system drops at layer 3 because of XLIU congestion, perform the following calculation. Multiply register PKTDROP2 by 65 536 and add register PKTDROP.

Register PKTTXDA2 release history

Register PKTDROP2 was introduced in NA005.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group XPMLNK

OM description

XMS-based peripheral module link (XPMLNK)

The XPMLNK records one-way and two-way link blockage and use for all extended multiprocessor system (XMS)-based peripheral modules (XPM) with switched lines.

Release history

CSP18/SN05

Modified the description of the INFO field for CR Q00319537.

BCS34

The OM group XPMLNK was introduced in BCS34.

Registers

The OM group XPMLNK registers appear on the MAP terminal as follows:

```
CSLCBU          PSLCBU          CSLAA           PSLAA
CSLBLK          PSLBLK          CSLMU           PSLMU
```

Group structure

The OM group XPMLNK provides one tuple for each XPM that has LCDs.

Key field:
PM_TYPE PM_NO

Info field:
XPMLNK_OM_KEY

The XPMLNK_OM_KEY consists of the following parts:

- OM registers
- the XPM type and number
- OM registers count

Associated OM groups

LMD Line module device for use with line controlling module (LCM) OMs

RSCIS Remote switching center (RSC) intraswitching measurement

RLCDIS Remote line controlling device intraswitching measurement

Associated functional groups

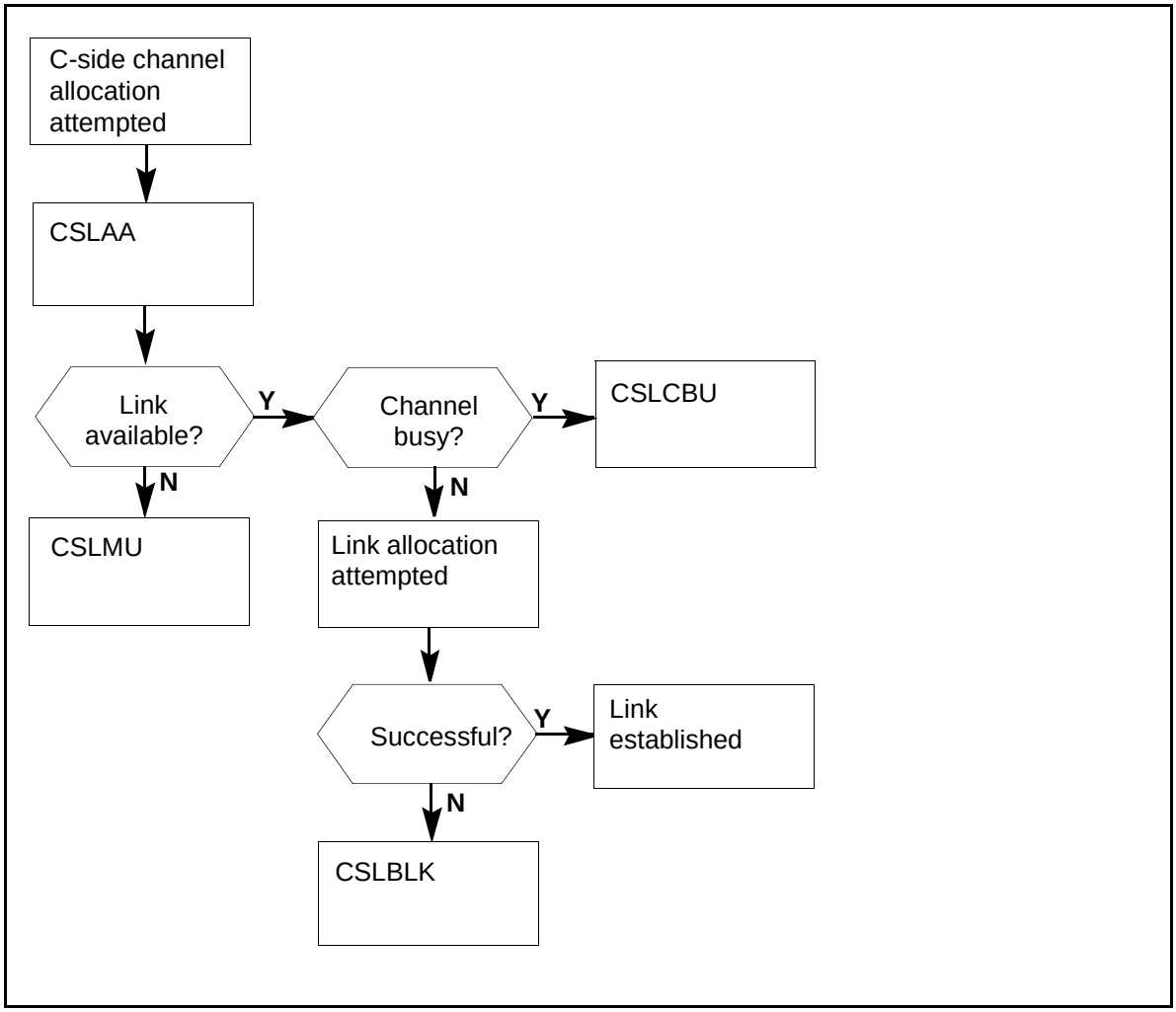
The Peripheral module functional groups associate with OM group XPMLNK.

Associated functionality codes

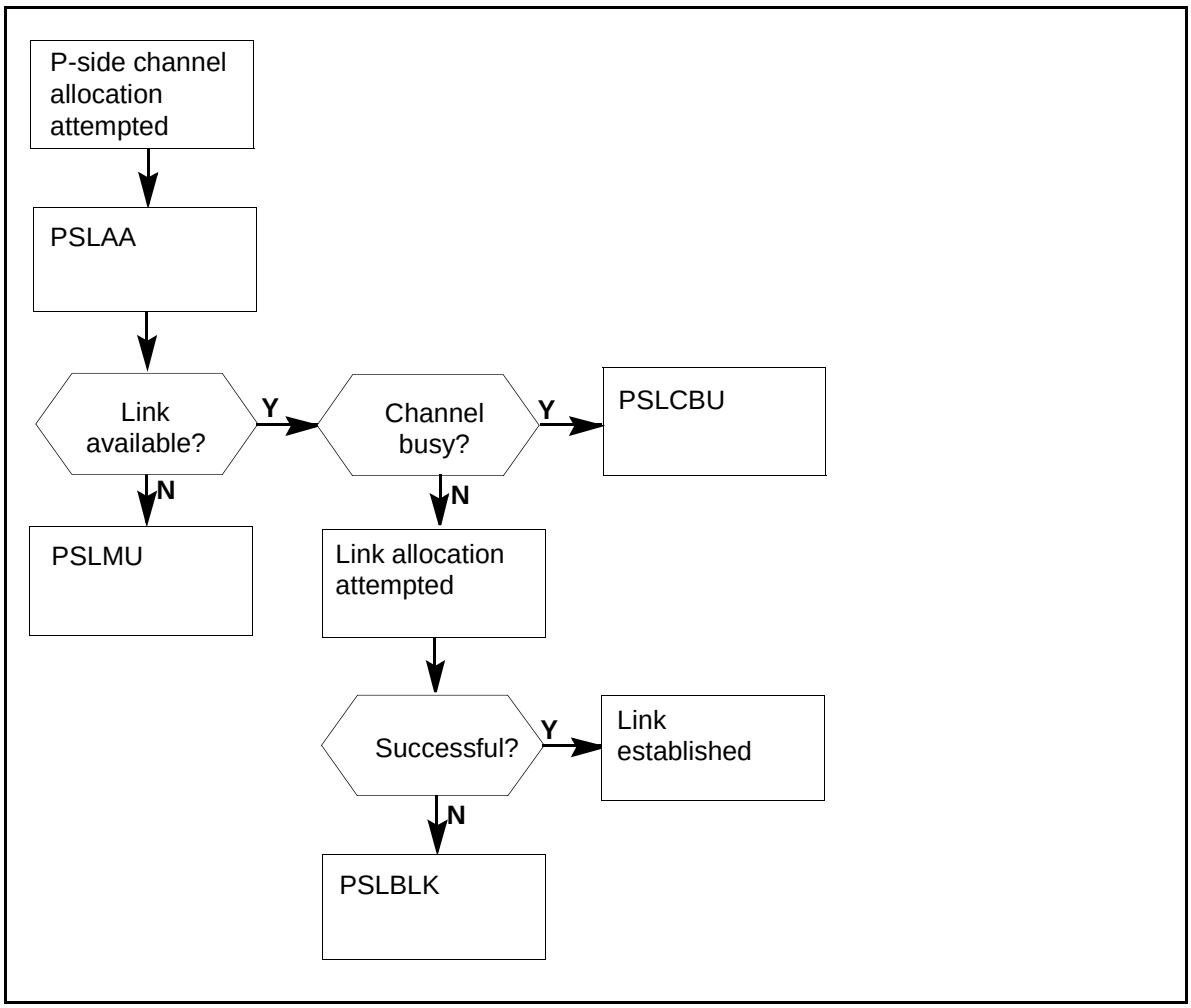
The associated functionality codes for OM group XPMLNK are in the following table.

Functionality	Code
New Peripheral Maintenance Package	NTX270AA

OM group XPMLNK registers



OM group XPMLNK registers (continued)



Register CSLAA

C-side link allocation attempts (CSLAA)

Register CSLAA increases when the network attempts to allocate a channel to the XPM.

Register CSLAA release history

Register CSLAA was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CSLBLK

C-side link blockage (CSLBLK)

Register CSLBLK increases for each failed attempt to allocate a channel between the network and the XPM.

Register CSLBLK release history

Register CSLBLK was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CSLCBU

C-side link call busy usage (CSLCBU)

Register CSLCBU records the time that C-side links are busy because of call processing. This register records the time in hundred call seconds (CCS).

Register CSLCBU release history

Register CSLCBU was introduced in BCS34.

Associated registers

LMD_LMTRU, RSCIS_RSCISCBU, RLCDIS_ISTOTTRU

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CSLMU

C-side link maintenance busy use (CSLMU)

Register CSLMU records the time in CCS that the C-side links are not available for call processing.

Register CSLMU release history

Register CSLMU was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PSLAA

P-side link allocation attempts (PSLAA)

Register PSLAA increases when the system allocates a channel between an XPM and the subtending nodes.

Register PSLAA release history

Register PSLAA was introduced in BCS34.

Associated registers

LMD_NTERMATT, LMD_NORIGATT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PSLBLK

P-side link blockage (PSLBLK)

Register PSLBLK increases for each attempt that fails to allocate a channel between the XPM and one of the subtending nodes.

Register PSLBLK release history

Register PSLBLK was introduced in BCS34.

Associated registers

LMD_PMTRMBLK

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PSLMU

P-side link maintenance busy use (PSLMU)

Register PSLMU records the time that the links between the XPM and subtending nodes are not available for call processing. The register records the time in CCS.

Register PSLMU release history

Register PSLMU was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PSLCBU

P-side link call busy use (PSLCBU)

Register PSLCBU records the time (in CCS) that P-side links are busy because of call processing.

Register PSLCBU release history

Register PSLCBU was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group XPMMSGOC

OM description

Extended Peripheral Module Messaging Occupancy (XPMMSGOC) data measures the percentage of time each messaging interface places a message in its holding queue. This data can predict and monitor XPM overload conditions.

Release history

OM Group XPMMSGOC was introduced in TL10.

Registers

The following OM Group XPMMSGOC registers display on the MAP terminal as follows:

```
XPMMSGOC
CLASS:  HOLDING
START:1998/02/20 17:00:00 FRI; STOP: 1998/02/20 17:30:00
FRI;SLOWSAMPLES:          0 ; FASTSAMPLES:          0 ;

INFO (XPMMSGOC_OM_KEY)
HQ00         HQ05          HQ10       HQ20
HQ30        HQ40        HQABV40    AVGRATE
MAXRATE      NUMREPTS
            LTC         9 NET
             0               0         0        0
             0               0         0        0
             0               0
1           LTC         9 NETY
             0               0         0        0
             0               0         0        0
             0               0
2           LTC         9 IMC
             0               0         0        0
             0               0         0        0
             0               0
3           LTC         9 SPCHBUS
             0               0         0        0
             0               0         0        0
             0               0
4            LTC         9 HDLC
             0               0         0        0
             0               0         0        0
            0               0
```

Group structure

OM Group XPMMSGOC

Key field:
NIL

Info field:
XPMMSGOC_OM_KEY

OM group XPMMSGOC (continued)

There are 5 tuples of information for each supported XPM.

Associated OM groups

Does not apply

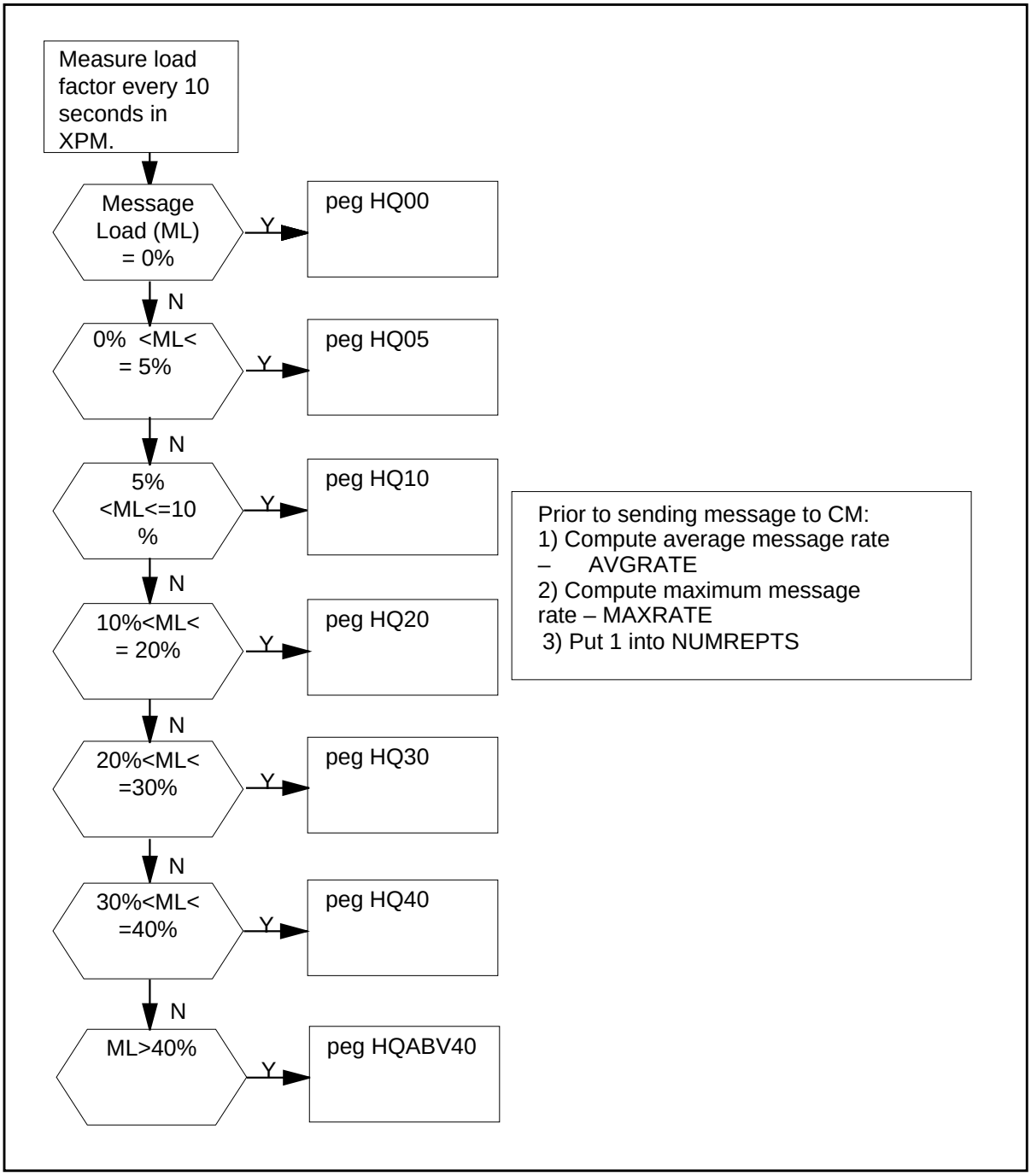
Associated functional groups

All the functional groups available in the DMS software loads are associated with OM Group XPMMSGOC.

Associated functionality codes

OM Group XPMMSGOC is not dependent on any other order code.

OM Group XPMMSGOC registers



Register HQ00

The Holding Queue 0% register is pegged when the message load factor computed is 0%.

OM group XPMMSGOC (continued)

Register HQ00 release history

Register HQ00 was introduced in TL10

Associated registers

None

Associated logs

None

Extension registers

None

Register HQ05

The Holding Queue 5% register is pegged when the message load factor computed is greater than 0% and less than or equal to 5%.

Register HQ05 release history

Register HQ05 was introduced in TL10.

Associated registers

None

Associated logs

None

Extension registers

None

Register HQ10

The Holding Queue 10% register is pegged when the message load factor computed is greater than 5% and less than or equal to 10%.

Register HQ10 release history

Register HQ10 was introduced in TL10.

Associated registers

None

Associated logs

None

Extension registers

None

Register HQ20

The Holding Queue 20% register is pegged when the message load factor computed is greater than 10% and less than or equal to 20%.

Register HQ20 release history

Register HQ20 was introduced in TL10.

Associated registers

None

Associated logs

None

Extension registers

None

Register HQ30

The Holding Queue 30% register is pegged when the message load factor computed is greater than 20% and less than or equal to 30%.

Register HQ30 release history

Register HQ30 was introduced in TL10.

Associated registers

None

Associated logs

None

Extension registers

None

Register HQ40

The Holding Queue 40% register is pegged when the message load factor computed is greater than 30% and less than or equal to 40%.

Register HQ40 release history

Register HQ40 was introduced in TL10.

Associated registers

None

OM group XPMMSGOC (continued)

Associated logs

None

Extension registers

None

Register HQABV40

The Holding Queue Above 40% register is pegged when the message load factor computed is greater than 40%.

Register HQABV40 release history

Register HQABV40 was introduced in TL10.

Associated registers

None

Associated logs

None

Extension registers

None

Register AVGRATE

The Average Message Rate register records the average message rate in messages per second. This rate is sampled between two successive reporting instants.

Register AVGRATE release history

Register AVGRATE was introduced in TL10.

Associated registers

None

Associated logs

None

Extension registers

None

Register MAXRATE

The Maximum Message Rate register records the maximum transfer rate in messages per second. This rate is sampled between two successive reporting instants.

Register MAXRATE release history

Register MAXRATE was introduced in TL10.

Associated registers

None

Extension registers

None

Register NUMREPTS

The Number of Reports register records the number of reports between two successive instants.

Register NUMREPTS release history

Register NUMREPTS was introduced in TL10.

Associated registers

None

Associated logs

None

Extension registers

None

OM group XPMOCC

OM description

PM central processing unit (CPU) occupancy (XPMOCC)

Register XPMOCC provides processor occupancy measurements for all extended multiprocessor system (XMS)-based peripheral modules (XPM).

Release history

The OM group XPMOCC was introduced in CSP02.

Registers

The OM group XPMOCC registers appear on the MAP terminal as follows:

```
CPUCP30         CPUCP40         CPUCP50         CPUCP60
CPUCP70         CPUCP80         CPUCP85         CPUCP90
CPUCP95         CPUCP100        CPUTOTL         AVGCPOCC
AVGLPOCC        NUMRPTS         PMORIGS         PMTERMS
```

Group structure

The OM group XPMOCC for each XPM based on the unified processor (UP) provides one tuple for occupancy information on UP. The system provides an additional tuple for processors with an enhanced ISDN signaling preprocessor (EISP) processor for occupancy information on EISP.

Key field:
There is no key field.

Info field:
XPMOCC_OM_KEY

Associated OM groups

PM, PM1, PM2, PMMSGCNT, PMOVLD, PMSTAT, XPMLNK, XPMOVLD

Associated functional groups

The following functional groups associate with OM group XPMOCC:

- Automated Directory Assistance Service (ADAS)
- DMS-100 local office
- DMS-100/200 combined local/toll office
- DMS-100/200 combined local/toll office with TOPS
- DMS-200 toll office

- DMS-200 with TOPS
- DMS-100 Meridian
- DMS-MTX mobile telephone exchange
- DMS-250 toll/tandem switch
- DMS-300 gateway
- Meridian 1 (options 111-211) PABX

Associated functionality codes

The associated functionality codes for the OM group XPMOCC appear in the following table.

(Sheet 1 of 2)

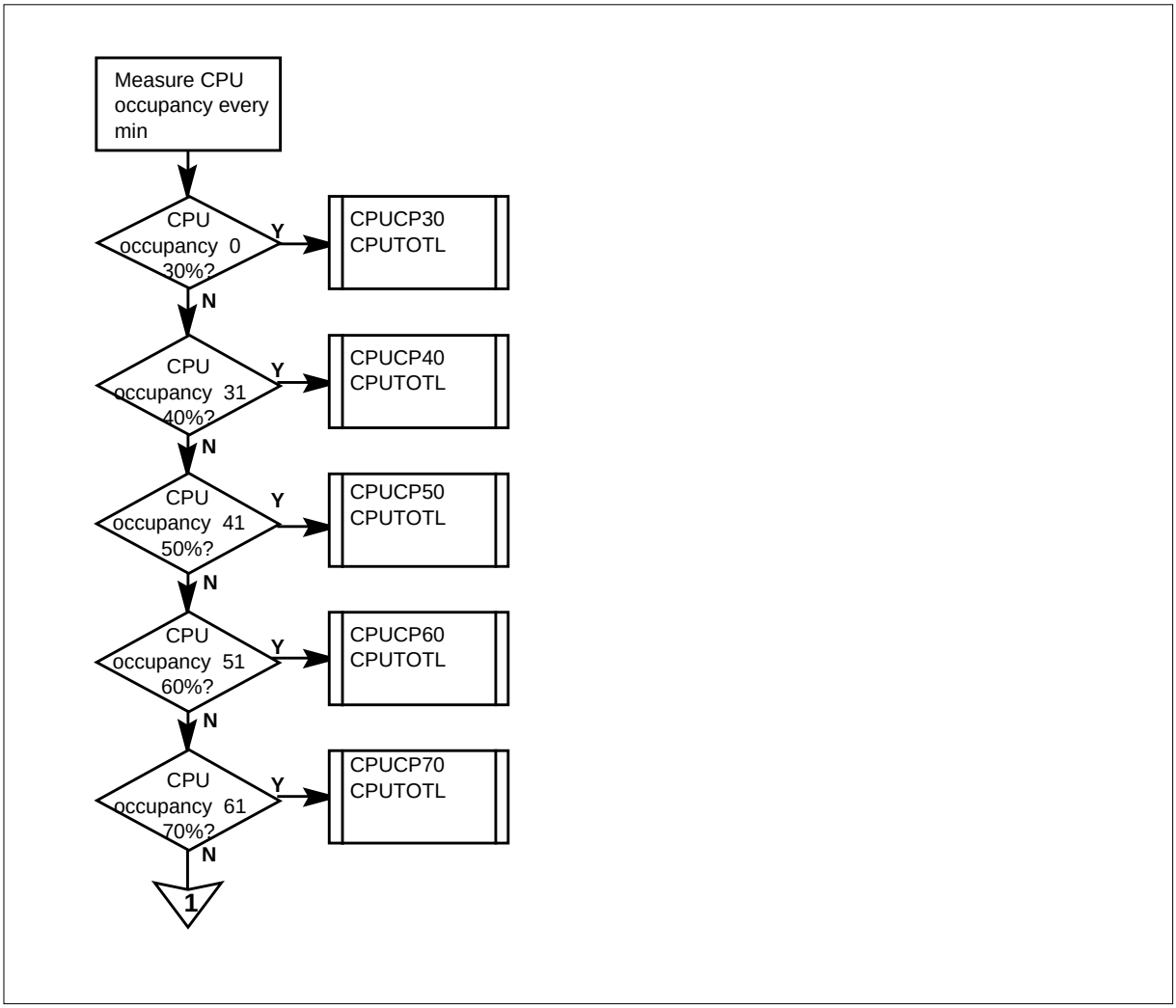
Functionality	Code
EIU Peripheral Load for SuperNode OPC	NTG310AA
Common Basic	NTX001AA
Common Channel Interoffice Signaling-Basic	NTX040AA
CCS7-MTP/SCCP	NTX041AA
RLCM-Emergency Stand-alone Operation	NTX154AA
DMS-250 Call Processing Type XIII	NTX222AM
New Peripheral Maintenance Package	NTX270AA
International Switching Center-Basic	NTX300AA
SMU-Subscriber Module Urban	NTX387AA
International-Local Basic	NTX472AB
Digital Phone M2000-Basic	NTX640AA
OMs in Erlangs	NTX664AA
ISDN Basic Access (upgrade of NTX750AA)	NTX750AB
STP Operations	NTX833AA
Mercury Centrex PCM30 Peripherals	NTX913AA
Meridian SL-100 Cabinetized Software	NTXA10AA
CC MNTCE	NTXB58AA

OM group XPMOCC (continued)

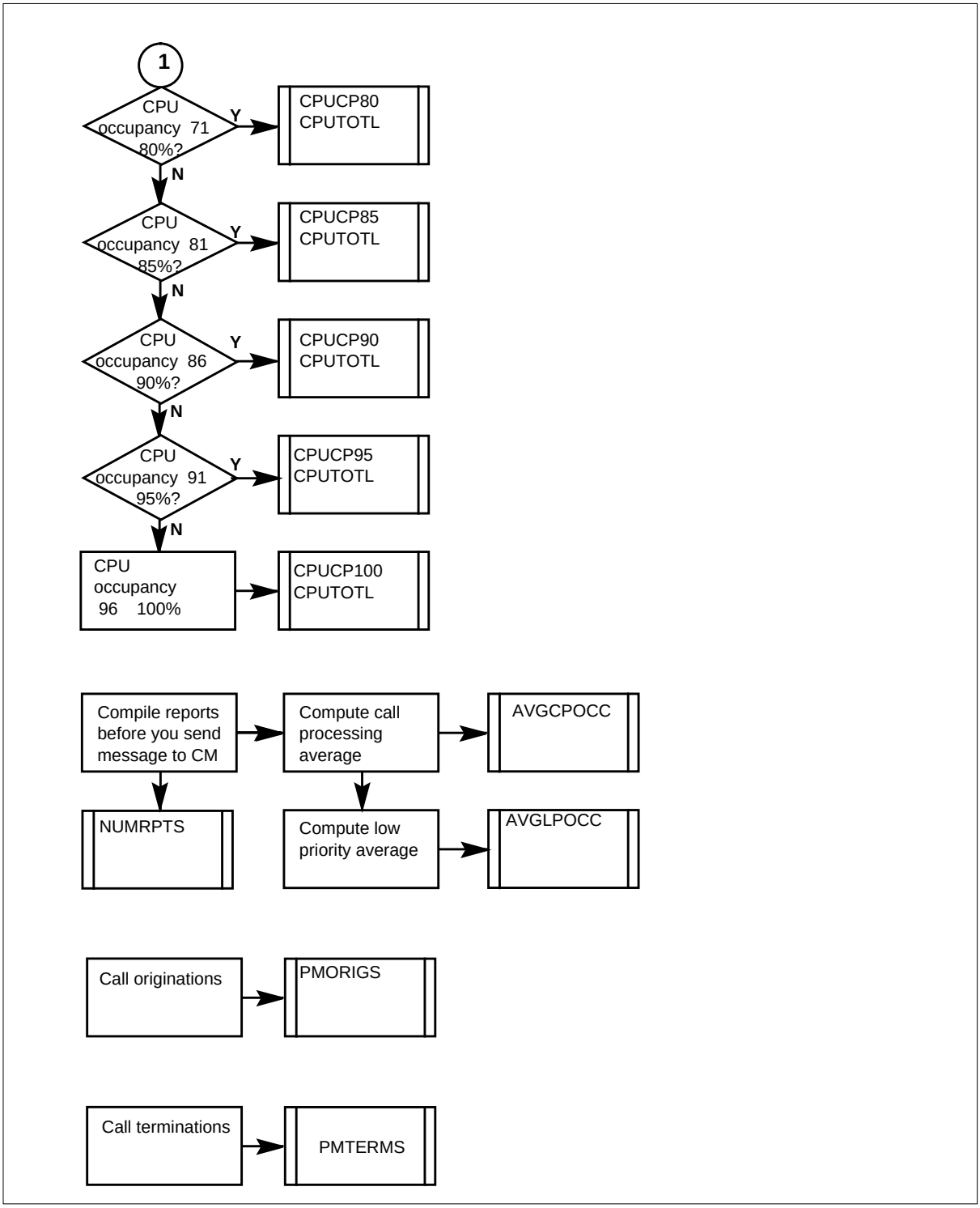
(Sheet 2 of 2)

Functionality	Code
PCM30 RSCO Support	NTXH52AA
Extended Peripheral Equipment	NTXN25AA
UAE, UNIX Conversant Software	NTXS30AA
Enhanced Service Resource Management	NTXS31AA

The OM group XPMOCC registers



The OM group XPMOCC registers (continued)



OM group XPMOCC (continued)

Register AVGCPOCC

Average call processing occupancy (AVGCPOCC)

Register AVGCPOCC is a usage register that measures average call processing occupancy.

Register AVGCPOCC release history

Register AVGCPOCC was introduced in BCS37.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register AVGLPOCC

Average low occupancy processing (AVGLPOCC)

Register AVGLPOCC is a usage register for unified processors. Register AVGLPOCC measures average low priority occupancy. Enhanced ISDN signaling processors (EISN) have a zero in this register.

Register AVGLPOCC release history

Register AVGLPOCC was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP100

CPU call processing 100 (CPUCP100)

Register CPUCP100 counts the number of times call processing occupancy is in the 96 to 100% range.

Register CPUCP100 release history

CPUCP100 was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP30

CPU call processing 30 (CPUCP30)

Register CPUCP30 counts the number of times call processing occupancy is in the 0 to 30% range.

Register CPUCP30 release history

Register CPUCP30 was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP40

CPU call processing 40 (CPUCP40)

Register CPUCP40 counts the number of times call processing occupancy is in the 31 to 40% range.

Register CPUCP40 release history

Register CPUCP40 was introduced in CSP02.

Associated registers

There are no associated registers.

OM group XPMOCC (continued)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP50

CPU call processing 50 (CPUCP50)

Register CPUCP50 counts the number of times call processing occupancy is in the 41 to 50% range.

Register CPUCP50 release history

Register CPUCP50 was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP60

CPU call processing 60 (CPUCP60)

Register CPUCP60 counts the number of times call processing occupancy is in the 51 to 60% range.

Register CPUCP60 release history

Register CPUCP60 was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP70

CPU call processing 70 (CPUCP70)

Register CPUCP70 counts the number of times call processing occupancy is in the 61 to 70% range.

Register CPUCP70 release history

Register CPUCP70 was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP80

CPU call processing 80 (CPUCP80)

Register CPUCP80 counts the number of times call processing occupancy is in the 71 to 80% range.

Register CPUCP80 release history

Register CPUCP80 was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP85

CPU call processing 85 (CPUCP85)

Register CPUCP85 counts the number of times call processing occupancy is in the 81 to 85% range.

OM group XPMOCC (continued)

Register CPUCP85 release history

Register CPUCP85 was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP90

CPU call processing 90 (CPUCP90)

Register CPUCP90 counts the number of times call processing occupancy is in the 86 to 90% range.

Register CPUCP90 release history

Register CPUCP90 was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP95

CPU call processing 95 (CPUCP95)

Register CPUCP95 counts the number of times call processing occupancy is in the 91 to 95% range.

Register CPUCP95 release history

Register CPUCP95 was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUTOTL

CPU total (CPUTOTL)

Register CPUTOTL accumulates the totals in registers CPUCP30, CPUCP40, CPUCP50, CPUCP60, CPUCP70, CPUCP80, CPUCP85, CPUCP90, CPUCP95, and CPUCP100.

Register CPUTOTL release history

Register CPUTOTL was introduced in CSP02.

Associated registers

CPUCP30, CPUCP40, CPUCP50, CPUCP60, CPUCP70, CPUCP80, CPUCP85, CPUCP90, CPUCP95, CPUCP100

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register NUMRPTS

Number reports (NUMRPTS)

Register NUMRPTS counts the number of 15 min reports added to accumulation registers to normalize registers AVGCPOCC and AVGLPOCC.

Register NUMRPTS release history

Register NUMRPTS was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group XPMOCC (end)

Register PMORIGS

Total call origination attempts (PMORIGS)

Register PMORIGS counts the total call origination attempts. Register PMORIGS reports on an XPM by XPM basis. This register contains a value only for tuples that associate with the unified processor. Register PMTERMS always contains a zero for enhanced ISDN signaling processor (EISP) tuples.

Register PMORIGS release history

Register PMORIGS was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PMTERMS

PM terminations (PMTERMS)

Register PMTERMS counts total call termination attempts. Register PMORIGS reports on an XPM by XPM basis. This register contains a value only for tuples that associate with the unified processor. Register DMTERMS always contains a zero for enhanced ISDN signaling processor (EISP) tuples.

Register PMTERMS release history

Register PMTERMS was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group XPMOVLD

OM description

XPM overload (XPMOVLD)

The OM group XPMOVLD reports the number of terminations and delays for extended multiprocessor system (XMS)-based peripheral modules (XPM). Although XPMOVLD monitors the same events as PMOVLD, XPMOVLD provides several new categories of overload indicator classes. This OM group increases the amount of information about XPM call processing overload events. This OM group also increases the amount of information about the severity of XPM call processing overload events. As a result, XPMOVLD enables quick analysis of these events.

Release history

The OM group XPMOVLD was introduced in CPS02.

Registers

The following OM group XPMOVLD registers appear on the MAP terminal:

PORGDLY	PTRMDLY	PORGMSG	PTRMMSG
PORGIPC	PMSGIPC	PORGPTQ	PTRMPTQ
PORGSLLC	PORGLCM	PORGMISC	PTRMMISC

Group structure

The OM group XPMOVLD provides one tuple for each office.

Key field:
There is no Key field.

Info field:
There is no Info field.

Associated OM groups

PMOVLD

Associated functional groups

The following are associated functional groups for the OM group XPMOVLD:

- Automated Directory Assistance Service (ADAS)
- DMS-100 local office
- DMS-100/200 combined local/toll office
- DMS-100/200 combined local/toll office with TOPS

OM group XPMOVLD (continued)

- DMS-200 toll office
- DMS-200 with TOPS
- DMS-100 Meridian
- DMS-MTX mobile telephone exchange
- DMS-250 toll/tandem switch
- DMS-300 gateway
- Meridian 1 (options 111-211) PABX

Associated functionality codes

The associated functionality codes for the OM group XPMOVLD appear in the following table.

(Sheet 1 of 2)

Functionality	Code
EIU Peripheral Load for SuperNode OPC	NTG310AA
Common Basic	NTX001AA
Common Channel Interoffice Signaling—Basic	NTX040AA
CCS7—MTP/SCCP	NTX041AA
RLCM—Emergency Stand-alone Operation	NTX154AA
DMS-250 Call Processing Type XIII	NTX222AM
New Peripheral Maintenance Package	NTX270AA
International Switching Center-Basic	NTX300AA
SMU—Subscriber Module Urban	NTX387AA
International—Local Basic	NTX472AB
Digital Phone M2000—Basic	NTX640AA
OMs in Erlangs	NTX664AA
ISDN Basic Access (upgrade of NTX750AA)	NTX750AB
STP Operations	NTX833AA
Mercury Centrex PCM30 Peripherals	NTX913AA
Meridian SL-100 Cabinetized Software	NTXA10AA

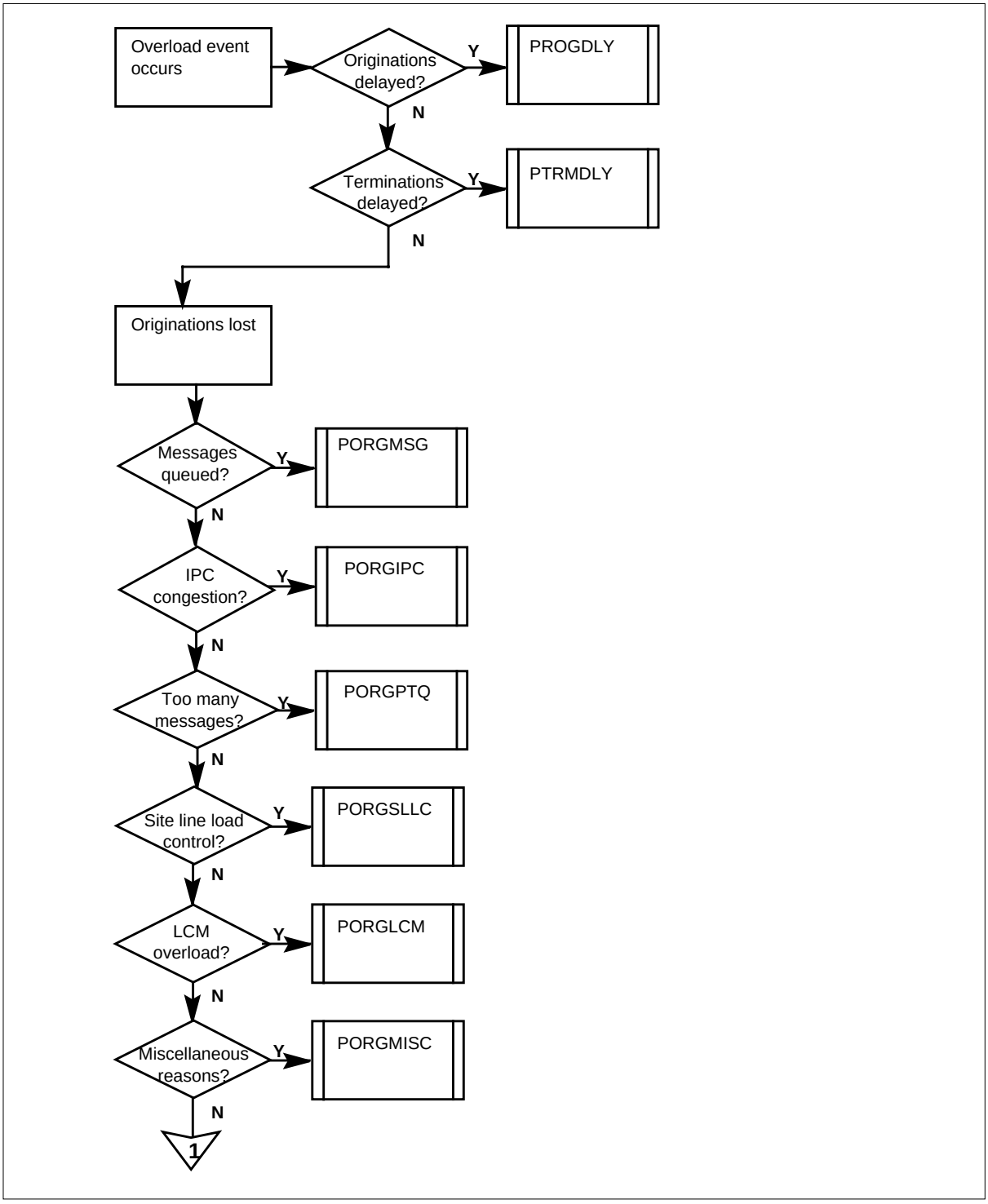
OM group XPMOVLD (continued)

(Sheet 2 of 2)

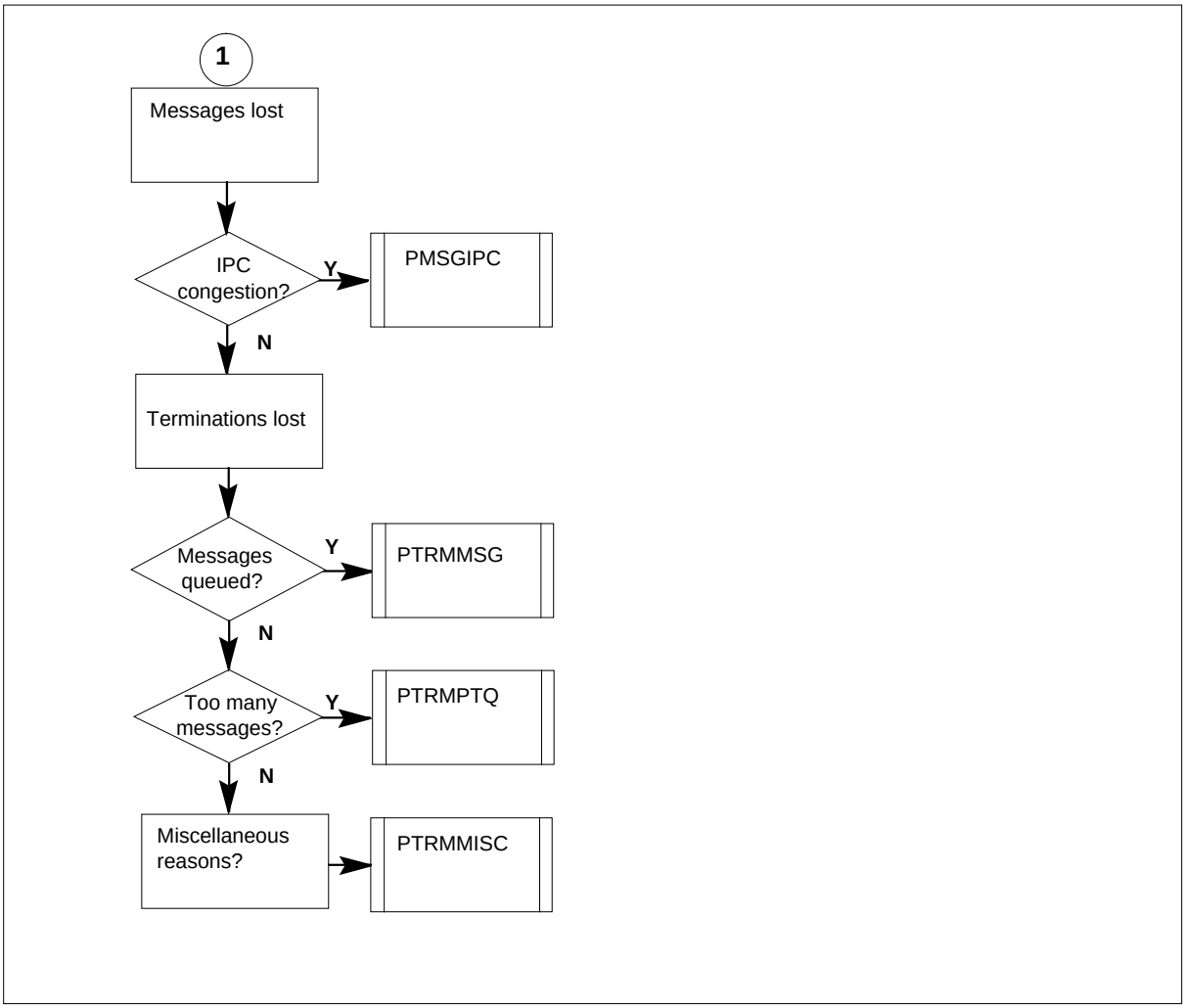
Functionality	Code
CC MNTCE	NTXB58AA
PCM30 RSCO Support	NTXH52AA
Extended Peripheral Equipment	NTXN25AA
UAE, UNIX Conversant Software	NTXS30AA
Enhanced Service Resource Management	NTXS31AA

OM group XPMOVLD (continued)

The OM group XPMOVLD registers



The OM group XPMOVLD registers (continued)



Register PMSGIPC

PM messages interprocess communication (IPC) buffer congestion (PMSGIPC)

Register PMSGIPC counts the number of messages lost as a result of IPC buffer congestion. The messages that this register counts include messages other than originations.

Register PMSGIPC release history

Register PMSGIPC was introduced in BCS37.

OM group XPMOVLD (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PORGDLY

Number of originations delayed (PORGDLY)

Register PORGDLY counts the number of originations delayed.

Register PORGDLY release history

Register PORGDLY was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PORGIPC

PM originations interprocess communication (IPC) buffer congestion (PORGIPC)

Register PORGIPC counts the number of originations lost as a result of IPC buffer congestion.

Register PORGIPC release history

Register PORGIPC was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PORGLCM

PM originations line concentrating module (PORGLCM)

Register PORGLCM counts the number of originations lost as a result of line concentrating module overload.

Register PORGLCM release history

Register PORGLCM was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PORGMISC

PM originations miscellaneous (PORGMISC)

Register PORGMISC counts the number of originations lost for miscellaneous reasons. An interprocess communication buffer (IPC) index that is not correct is an example of a miscellaneous reason.

Register PORGMISC release history

Register PORGMISC was introduced in BCS37.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PORGMSG

PM origination messages lost (PORGMSG)

OM group XPMOVLD (continued)

Register PORGMSG counts the number of originations lost because too many messages are present in the flow control system.

Register PORGMSG release history

Register PORGMSG was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PORGPTQ

PM originations terminal quota (PORGPTQ)

Register PORGPTQ counts the number of originations lost because of the limit on the number of messages allowed per terminal in the flow control system.

Register PORGPTQ release history

Register PORGPTQ was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PORGSLLC

PM originations site line load control (PORGSLLC)

Register PORGSLLC counts the number of originations lost as a result of site line load control.

Register PORGSLLC release history

Register PORGSLLC was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PTRMDLY

Number of terminations delayed (PTRMDLY)

Register PTRMDLY counts the number of terminations delayed.

Register PTRMDLY release history

Register PTRMDLY was introduced in BCS37.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PTRMMISC

PM terminations miscellaneous (PTRMMISC)

Register PTRMMISC counts the number of terminations for miscellaneous reasons. An interprocess communication buffer (IPC) index that is not correct is an example of a miscellaneous reason.

Register PTRMMISC release history

Register PTRMMISC was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group XPMOVLD (end)

Extension registers

There are no extension registers.

Register PTRMMSG

PM terminations lost (PTRMMSG)

Register PTRMMSG counts the number of terminations lost because there are too many messages in the flow control system.

Register PTRMMSG release history

Register PTRMMSG was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PTRMPTQ

PM terminations terminal quota (PTRMPTQ)

Register PTRMPTQ counts the number of terminations lost because of the limit on the number of messages allowed per terminal in the flow control system.

Register PTRMPTQ release history

Register PTRMPTQ was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

DMS-100 Family

North American DMS-100

Operational Measurements Reference Manual

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OM Groups TCAPERRS-XPMOVLD

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