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Acknowledgment

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ID STP:MA
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on the metallic access (MA) board at the specified location be stopped.

2. FORMAT

STP:[a,]MA=b-c-d-e;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the MA board). Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Metallic service unit (MSU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied because of a conflict with current status.
- PF = Printout follows. Followed by the STP:MA output message.

5. REFERENCES

Input Message(s):

DGN:MA
EX:MA
RMV:MA
RST:MA

Output Message(s):

STP:MA

Input Appendix(es):

APP:RANGES

ID STP:MCTSI
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on the module controller/time slot interchange (MCTSI) at the specified location be stopped.

2. FORMAT

STP:[a,]MCTSI=b-c;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the MCTSI). Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Module control unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied because of a conflict with current status.
- PF = Printout follows. Followed by the STP:MCTSI output message.

5. REFERENCES

Input Message(s):
DGN:MCTSI
EX:MCTSI
RMV:MCTSI
RST:MCTSI

Output Message(s):
STP:MCTSI

Input Appendix(es):
APP:RANGES

ID STP:MEMSIZE
RELEASE 5E15 and later
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests termination of the OP:MEMSIZE input message.

2. FORMAT

STP:MEMSIZE;

3. EXPLANATION OF MESSAGE

No parameters.

4. SYSTEM RESPONSE

OK = Job is stopped or no job was running.

5. REFERENCES

Input Message(s):
OP:MEMSIZE

Output Message(s):
OP:MEMSIZE

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-070-100 *Switch Administration and Engineering Guidelines*
235-118-251 *Recent Change Procedures*
235-118-25x *Recent Change Reference*
235-600-400 *Audits*

ID STP:MICU
RELEASE 5E15 and later
COMMAND GROUP CM
APPLICATION 5

1. PURPOSE

Requests that a diagnostic or exercise on the message interface and clock unit (MICU) subunit of the office network and timing complex (ONTC) be stopped.

2. FORMAT

STP:[a,]MICU=b;

3. EXPLANATION OF MESSAGE

a = Action to be stopped (default is the action currently executing on the MICU). Valid value(s):

DGN = Diagnose.
EX = Exercise.

b = Side of the ONTC that the MICU is on. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. The message was correct but the request conflicts with current status.

OK = Good. The action will be stopped.

5. REFERENCES

Input Message(s):
OP:DMQ

Output Message(s):
OP:DMQ
OP:DMQ-CM
OP:DMQ-SM

Input Appendix(es):
APP:RANGES

ID STP:MMP
RELEASE 5E15 and later
COMMAND GROUP CM
APPLICATION 5

1. PURPOSE

Requests that actions on the specified module message processor (MMP) be stopped.

Stop is differentiated from abort by the action of the request. A stop action is not immediate, but waits for a 'clean' point of termination (such as, the end of a phase), and will attempt to leave the hardware in a sane state. An abort action is immediate and the state of the hardware is not guaranteed.

2. FORMAT

STP:a,MMP=b-c;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is any action currently waiting or executing on the MMP). Valid value(s):
- | | |
|-----|---------------------------------|
| DGN | = Diagnose. (Not valid for CM3) |
| EX | = Exercise. (Not valid for CM3) |
| RST | = Restore. |
- b = Message switch number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = MMP logical identification number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- IP = In progress. The stop has been initiated. A completion message will be printed for the original request when the stop has completed.
- NG = No good. The request has been denied. The message syntax is valid, but the request could not be processed. Refer to the APP:CM-IM-REASON appendix in the Appendixes section of the Input Messages manual for a list of possible reasons for denying the request.

5. REFERENCES

Input Message(s):

DGN:MMP
EX:MMP
OP:DMQ
RST:MMP

Output Message(s):

DGN:MMP
EX:MMP
OP:DMQ-CM
RST:MMP

Input Appendix(es):

APP:CM-IM-REASON
APP:RANGES

ID STP:MSCU
RELEASE 5E15 and later
COMMAND GROUP CM
APPLICATION 5

1. PURPOSE

Requests that specific actions on the specified message switch control unit (MSCU) be stopped.

Stop is differentiated from abort by the action of the request. A stop action is not immediate, but waits for a 'clean' point of termination (such as, the end of a diagnostic segment), and will attempt to leave the hardware in a sane state. An abort action is immediate and the state of the hardware is not guaranteed.

2. FORMAT

STP:[a,]MSCU=b;

3. EXPLANATION OF MESSAGE

a = Action to be stopped. Valid value(s):

DGN	= Diagnose. (Not valid for CM3)
EX	= Exercise. (Not valid for CM3)
RMV	= Remove.
RST	= Restore.

Note: The default is all actions currently waiting or executing on the MSCU.

b = Message switch side number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

IP = In progress. The stop has been initiated. A completion message will be printed for the original request if the stop completes successfully. If no completion message is printed, determine the current status of the original request using the OP:DMQ-CM-SM input message. Consider using the abort (ABT) message, ABT:MSCU, as a final resort, if the original request is still present.

NG = No good. The request has been denied. The message syntax is valid, but the request could not be processed. Refer to the APP:CM-IM-REASON appendix in the Appendixes section of the Input Messages manual for a list of possible reasons for denying the request.

5. REFERENCES

Input Message(s):

ABT:MSCU
DGN:MSCU
EX:MSCU
OP:DMQ-CM-SM
RMV:MSCU
RST:MSCU

Input Appendix(es):

APP:CM-IM-REASON
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*

235-105-220 *Corrective Maintenance*

235-105-250 *System Recovery Procedures*

ID STP:MSGS
RELEASE 5E15 and later
COMMAND GROUP CM
APPLICATION 5

1. PURPOSE

Requests that specific actions on the specified message switch (MSGS) complex be stopped.

2. FORMAT

STP:[a,]MSGS=b;

3. EXPLANATION OF MESSAGE

a = Action to be stopped. Valid value(s):

DGN	= Diagnose.
RMV	= Remove.
RST	= Restore.

Note: The default is all actions currently waiting or executing on the MSGS.

b = Message switch side number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

IP = In progress. The stop has been initiated. A completion message will be printed for the original request if the stop completes successfully. If no completion message is printed, determine the current status of the original request using the OP:DMQ-CM-SM input message. Consider using the abort (ABT) message, ABT:MSGS, as a final resort, if the original request is still present.

NG = No good. The request has been denied. The message syntax is valid, but the request could not be processed. Refer to the APP:CM-IM-REASON appendix in the Appendixes section of the Input Messages manual for a list of possible reasons for denying the request.

5. REFERENCES

Input Message(s):

ABT:MSGS
DGN:MSGS
OP:DMQ-CM-SM
RMV:MSGS
RST:MSGS

Input Appendix(es):

APP:CM-IM-REASON
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

ID STP:MSUCOM
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on the metallic service unit common (MSUCOM) board at the specified location be stopped.

2. FORMAT

STP:[a,]MSUCOM=b-c-d;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the MSUCOM board).
Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Metallic service unit (MSU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied because of a conflict with current status.
- PF = Printout follows. Followed by the STP:MSUCOM output message.

5. REFERENCES

Input Message(s):

DGN:MSUCOM
EX:MSUCOM
RMV:MSUCOM
RST:MSUCOM

Output Message(s):

STP:MSUCOM
RMV:MSUCOM
RST:MSUCOM

Input Appendix(es):

APP:RANGES

ID STP:MTB
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on the metallic access test bus (MTB) at the specified location be stopped.

2. FORMAT

STP:[a,]MTB=b-c-d-e-f;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the MTB). Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Metallic service unit (MSU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = Metallic access test bus number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied because of a conflict with current status.
- PF = Printout follows. Followed by the STP:MTB output message.

5. REFERENCES

Input Message(s):

DGN:MTB
EX:MTB
RMV:MTB
RST:MTB

Output Message(s):

STP:MTB

Input Appendix(es):

APP:RANGES

MCC Display Page(s):

1135/1145 (MSU MA STATUS)

ID STP:MTIBAX
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on the metallic test interconnect bus access (MTIBAX) at the specified location be stopped.

2. FORMAT

STP:[a,]MTIBAX=b-c-d-e;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the MTIBAX). Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message form is valid, but the request conflicts with current status.
- PF = Printout follows. Followed by the STP:MTIBAX output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):
DGN:MTIBAX
EX:MTIBAX
RMV:MTIBAX
RST:MTIBAX

Output Message(s):
STP:MTIBAX

Input Appendix(es):
APP:RANGES

ID STP:MTIB
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on the metallic test interconnect bus (MTIB) at the specified location be stopped.

2. FORMAT

STP:[a,]MTIB=b;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the MTIB). Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = MTIB number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message form is valid, but the request conflicts with current status.
- PF = Printout follows. Followed by the STP:MTIB output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

DGN:MTIB
EX:MTIB
RMV:MTIB
RST:MTIB

Output Message(s):

STP:MTIB

Input Appendix(es):

APP:RANGES

ID STP:NIPMP
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that a non-interfering pump for the specified switching module (SM) be canceled.

2. FORMAT

STP:NIPMP,SM=a;

3. EXPLANATION OF MESSAGE

a = SM number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. Request not initiated due to bad syntax or invalid SM specified.

PF = Printout follows. Request accepted. Followed by the REPT:NIPMP output message.

5. REFERENCES

Input Message(s):
ST:NIPMP

Output Message(s):
REPT:NIPMP

Input Appendix(es):
APP:RANGES

ID STP:NLI
RELEASE 5E15 and later
COMMAND GROUP CM
APPLICATION 5

1. PURPOSE

Requests that an action be stopped on a specific network link interface (NLI).

Stop is differentiated from abort by the action of the request. A stop action is not immediate, but waits for a 'clean' point of termination (such as, the end of a phase), and attempts to leave the hardware in a correct state. An abort action is immediate and the state of the hardware is not guaranteed.

2. FORMAT

STP:[a,]NLI=b-c-d;

3. EXPLANATION OF MESSAGE

a = Action being stopped (default is any action currently waiting or executing on the NLI).
Valid value(s):

DGN = Diagnose.
EX = Exercise.
RST = Restore.

Note: A remove or unconditional restore cannot be stopped once it is accepted.

b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

c = NLI number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

d = Office network and timing complex (ONTC) side number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

IP = In progress. The stop has been initiated. A completion message is printed for the original request when the stop has completed.

NG = No good. The request has been denied. The message syntax is valid, but the request could not be processed. Refer to the APP:CM-IM-REASON appendix in the Appendixes section of the Input Messages manual for a list of possible reasons for denying the request.

5. REFERENCES

Input Message(s):

ABT:NLI
DGN:NLI
EX:NLI
OP:DMQ-CM-SM
RST:NLI

Output Message(s):

DGN:NLI
EX:NLI

OP:DMQ-CM
OP:DMQ-SM
RST:NLI

Input Appendix(es):

APP:CM-IM-REASON
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1190 (MCTSI)
1200 (DLI/NLI)

ID STP:NMOP
RELEASE 5E15 and later
COMMAND GROUP NMOC
APPLICATION 5

1. PURPOSE

Requests that further output from a previously requested network management OP input message be stopped. This message can stop: OP:CGAP, OP:DOC, OP:SILC, OP:SSTR, OP:TGC, OP:TR, OP:NMNODES, OP:NMSCH input messages, or the OP:M5 input message with the PKG=TGFLAG, or the PKG=TGMEAS options.

2. FORMAT

STP:NMOP;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NG = No good. May also include:
 - NO REPORT TO STOP = The request could not be processed because there is no report to stop.

OK = Good. Stop request initiated. Message will stop printing.

RL = Retry later. May also include:
 - RESOURCE SHORTAGE = The necessary resources are not available.

5. REFERENCES

Input Message(s):

OP:CGAP
OP:DOC
OP:M5
OP:NMNODES
OP:NMSCH
OP:SILC
OP:SSTR
OP:TGC
OP:TR

Other Manual(s):

235-190-120 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)

ID STP:NPH
RELEASE 5E20(1) and later
COMMAND GROUP NPH
APPLICATION 5

1. PURPOSE

Requests that the currently printing user datagram port (UDP) connections information list be stopped. UDP connections information lists are printed in response to an OP:NPH input message. If this input message is successful, the list will stop printing. If this input message is not successful, an STP:NPH output message will print.

2. FORMAT

STP:NPH;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the STP:NPH output message.

5. REFERENCES

Input Message(s):
OP:NPH

Output Message(s):
OP:NPH
STP:NPH

ID STP:OC3C
RELEASE 5E16(2) and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the currently executing maintenance action on an optical carrier - level 3 concatenated (OC3C) facility be stopped.

2. FORMAT

STP:[a,]OC3C=b-c-d-e-f;

3. EXPLANATION OF MESSAGE

- a = Action being stopped (default is the currently executing action). Valid value(s):
 - RMV = Remove.
 - RST = Restore.
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Optical interface unit (OIU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Protection group (PG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = OC3C number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = Side number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with current status.
- PF = Printout follows. Followed by the STP:OC3C output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

ABT:OC3C
RMV:OC3C
RST:OC3C

Output Message(s):

STP:OC3C

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1491 OIU OC3C STATUS

ID STP:OC3
RELEASE 5E16(1) and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the currently executing maintenance action on an optical carrier - level 3 (OC3) be stopped.

2. FORMAT

STP:[a,]OC3=b-c-d-e-f;

3. EXPLANATION OF MESSAGE

- a = Action being stopped (default is the currently executing action). Valid value(s):
 - RMV = Remove.
 - RST = Restore.
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Optical interface unit (OIU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Protection group (PG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = OC3 number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = Side number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with current status.
- PF = Printout follows. Followed by the STP:OC3 output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

ABT:OC3
RMV:OC3
RST:OC3

Output Message(s):

STP:OC3

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1491 OIU OC3 STATUS

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID STP:ODDEVOL
RELEASE 5E15 and later
COMMAND GROUP ODD
APPLICATION 5

1. PURPOSE

Requests that the office dependent data (ODD) evolution or double logging process be stopped. All files containing recent changes (RCs) or customer-originated recent changes (CORCs) that were saved during the ODD evolution or double logging will be removed.

Warning: *This message should be used only when backing out of a software release retrofit or large terminal growth.*

2. FORMAT

STP:ODDEVOL;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by an STP:ODDEVOL output message.

5. REFERENCES

Input Message(s):
BKUP:ODD

Output Message(s):
STP:ODDEVOL

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-24x *Software Release Retrofit*
235-105-44x *Large Terminal Growth*

ID STP:OFI
RELEASE 5E16(1) and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the currently executing maintenance action on an optical facility interface (OFI) be stopped.

2. FORMAT

STP:[a,]OFI=b-c-d-e;

3. EXPLANATION OF MESSAGE

- a = Action being stopped (default is the currently executing action). Valid value(s):
 - DGN = Diagnose.
 - RMV = Remove.
 - RST = Restore.
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Optical interface unit (OIU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Protection group (PG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Side number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with the current status.
- PF = Printout follows. Followed by the STP:OFI output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

ABT:OFI
DGN:OFI
RMV:OFI
RST:OFI

Output Message(s):

STP:OFI

Input Appendix(es):

APP:RANGES

MCC Display Page(s):

1490 OIU STATUS

ID STP:OFR
RELEASE 5E15 and later
COMMAND GROUP RCV
APPLICATION 5

1. PURPOSE

Requests that any office records print message be stopped.

2. FORMAT

STP:OFR:REQID=a;

3. EXPLANATION OF MESSAGE

a = Request identification number of print request, as given in the OP:OFR-CAT or
OP:OFR-FORM output messages.

4. SYSTEM RESPONSE

PF = Printout follows.

5. REFERENCES

Input Message(s):
ABT:OFR
IN:OFR-PARM
OP:OFR-CAT
OP:OFR-FORM
OP:OFR-STATUS

ID STP:ONTCCOM
RELEASE 5E15 and later
COMMAND GROUP CM
APPLICATION 5

1. PURPOSE

Requests that an action on the specified office network and timing complex common unit (ONTCCOM) be stopped.

Stop is differentiated from abort by the action of the request. A stop action is not immediate, but waits for a 'clean' point of termination (such as, the end of a phase), and will attempt to leave the hardware in a sane state. An abort action is immediate and the state of the hardware is not guaranteed.

2. FORMAT

STP:[a,]ONTCCOM=b;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped. The default is any action currently waiting or executing on the ONTCCOM. Valid value(s):
- DGN = Diagnose.
 RST = Restore.
- b = ONTC common side. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- IP = In progress. The stop has been initiated. A completion message will be printed for the original request when the stop has completed.
- NG = No good. The request has been denied. The message syntax is valid, but the request could not be processed. Refer to the APP:CM-IM-REASON appendix in the Appendixes section of the Input Messages manual for a list of possible reasons for denying the request.

5. REFERENCES

Input Message(s):

 DGN:ONTCCOM
 OP:DMQ
 RST:ONTCCOM

Output Message(s):

 DGN:ONTCCOM
 OP:DMQ-CM
 RST:ONTCCOM

Input Appendix(es):

 APP:CM-IM-REASON

ID STP:OP-ALM-ALL
RELEASE 5E15 and later
COMMAND GROUP ALARM
APPLICATION 5

1. PURPOSE

Requests that the reporting of all active alarms in the office in response to the OP:ALM-ALL input message be stopped. This request will not stop the reports dealing with office building, power, and miscellaneous alarms, common network interface (CNI) alarms, external sanity monitor (ESM) alarms, miscellaneous frame fuse alarms, time-multiplexed switch (TMS) alarms, message switch (MSGs) alarms, or office network and timing complex (ONTC) alarms. These outputs are collected and queued to the receive-only printer (ROP) too quickly to stop, even though the printouts haven't printed yet.

2. FORMAT

STP:OP:ALM,ALL;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

OK = Good. The request has been accepted.

NG = No good. May also include:

- OP ALM ALL NOT RUNNING = The request is being denied because there is no OP:ALM-ALL request currently in progress.

5. REFERENCES

Input Message(s):

CLR:OP-ALM-ALL
OP:ALM
OP:CFGSTAT
OP:CGA
OP:MSUSP
OP:RT-ALM-ALL

Output Message(s):

OP:ALM-ALL
OP:ALM-RBPSC
OP:ALM-RIBMSC
OP:ALM-RISLUSC
OP:CFGSTAT-CM
OP:CGA
OP:MSUSP
OP:RT-ALARM

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*
235-190-115 *Local and Toll System Features*

363-200-101 *DCLU Integrated SLC® Carrier System*

MCC Display Page(s):

- 105,106 (BLDG/POWER AND ALARM CNTRLS)
- 115 (COMMUNICATION MODULE SUMMARY)
- 116 (MISCELLANEOUS)
- 118 (CNI FRAME AND CCS LINE STATUS)
- 119 (MISCELLANEOUS ALARMS)
- 1010,x (SM X STATUS)

ID STP:OP-MON
RELEASE 5E15 and later
COMMAND GROUP SFTUTIL
APPLICATION 5

1. PURPOSE

Requests that any action in progress due to an OP:MON-CTL, OP:MON-PID or OP:MON-DSP input message be stopped.

2. FORMAT

STP:OP,MON,{AM|SM=a|CMP=b-c};

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Message switch side. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Communications module processor (CMP) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

5. REFERENCES

Input Message(s):
OP:MON-CTL
OP:MON-DSP
OP:MON-PID

Output Message(s):
OP:MON-CTL
OP:MON-DSP
OP:MON-PID
STP:OP-MON

Input Appendix(es):
APP:RANGES

ID STP:OPUMP
RELEASE 5E15 and later
COMMAND GROUP CM
APPLICATION 5

1. PURPOSE

Requests that the offline pump be stopped.

2. FORMAT

STP:OPUMP,CMP=a,MATE;

3. EXPLANATION OF MESSAGE

MATE = Non-active CMP.

a = CMP number.

4. SYSTEM RESPONSE

IP = In progress. The stop has been initiated. A completion message will be printed for the original request if the stop completes successfully. If no completion message is printed, determine the current status of the original request using the OP:DMQ-CM-SM input message, and consider using the abort message, ABT:CM, as a final resort if the original request is still present.

NG = No good. The request has been denied. The message syntax is valid, but the request could not be processed. Refer to the APP:CM-IM-REASON appendix in the Appendixes section of the Input Messages manual for a list of possible reasons for denying the request.

5. REFERENCES

Input Message(s):
ST:OPUMP-CMP

Input Appendix(es):
APP:CM-IM-REASON

Output Message(s):
ST:OPUMP-CMP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID STP:OPUMP-SM
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that offline pump requests for the specified switching modules (SMs) including peripheral offline pumps be cancelled.

If an offline pump has been started using the ST:OPUMP message or automatically in the retrofit procedure, this input message aborts the request for the specified SM(s).

If an offline pump has been performed, but some of the duplexed peripheral units failed to offline pump, this message can be used to stop a re-pump of a duplexed peripheral unit.

Warning: *This message is used to abort the offline pump of an SM or duplexed peripheral units.*

2. FORMAT

STP:OPUMP, SM=a[&&b][,LSM][,HSM][,RSM];

3. EXPLANATION OF MESSAGE

HSM = Stop offline pump of the HSMs within the indicated range.

LSM = Stop offline pump of the LSMs within the indicated range.

RSM = Stop offline pump of the RSMs within the indicated range.

a = SM number, or the lower limit of a range of SMs. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

b = Upper limit of the range of SM numbers. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. Process not initiated due to bad syntax or invalid SM specified.

OK = Message good. Valid value(s):

- PUMPING SMS WILL REPORT = Printout will follow from only those SMs specified that were in a pumping state.

5. REFERENCES

Input Message(s):
ST:OPUMP-SM

Output Message(s):
REPT:SM-HASHSUM
REPT:SM-OFFLINE

Input Appendix(es):
APP:RANGES

ID STP:PAG
RELEASE 5E16(1) and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests the actions be stopped on a network interface.

2. FORMAT

STP:PAG=a-b,~NETINTF=c;

3. EXPLANATION OF MESSAGE

- a = Switch module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Packet access gateway (PAG) component number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Network interface number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with the current status.
- PF = Printout follows. Followed by the STP:PAG output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
STP:PAG

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1342,y PAG

ID STP:PCF
RELEASE 5E17(1) and later
COMMAND GROUP PCF
APPLICATION 5

1. PURPOSE

Stop currently printing packet data serving node (PDSN) status list. PDSN status lists are printed when an OP:PCF input message is processed.

2. FORMAT

STP:PCF;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the STP:PCF output message.

5. REFERENCES

Input Message(s):
OP:PCF

Output Message(s):
OP:PCF
STP:PCF

ID STP:PCTDX
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests the actions be stopped on a peripheral control and timing data exchanger (PCTDX)

2. FORMAT

STP:PCTDX=a-b-c;

3. EXPLANATION OF MESSAGE

- a = Switch Module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Peripheral control and timing data exchanger unit (PDXU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Peripheral control and timing data exchanger (PCTDX) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message form is valid, but the request conflicts with the current status.
- PF = Printout follows. Followed by the STP:PCTDX output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

DGN:PCTDX
RMV:PCTDX
RST:PCTDX

Output Message(s):

STP:PCTDX

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*

235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1330,y (PDXU)

ID STP:PCTF
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

To request a graceful stop of the currently printing per call test failure (PCTF) summary. PCTF summary lists are printed when an OP:PCTF input message is processed and automatically on a periodic basis. The STP:PCTF request will only stop a manually initiated PCTF summary; automatically initiated summaries are not affected.

2. FORMAT

STP:PCTF;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the STP:PCTF output message.

RL = Retry later. The request has been denied, most probably due to system load.

5. REFERENCES

Input Message(s):
OP:PCTF

Output Message(s):
OP:PCTF
STP:PCTF

Other Manual(s):
235-105-220 *Corrective Maintenance*

ID STP:PERF
RELEASE 5E15 and later
COMMAND GROUP SYSRCVY
APPLICATION 5

1. PURPOSE

Requests the Operating System for Distributed Switching (OSDS) resource monitoring utility to stop collecting and reporting usage of OSDS message, process, stack, and timer control blocks.

2. FORMAT

STP:PERF,{AM|CMP=a-b|SM=c};

3. EXPLANATION OF MESSAGE

AM = Operational kernel process in the administrative module (AM).
a = Message switch side. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
b = Communications module processor (CMP) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
c = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. The message syntax is valid, but the request conflicts with current system or equipment status. May also include:
- CMP NOT EQUIPPED = Requested CMP is not equipped.
- INTERNAL ERROR = An internal error has occurred while processing a CMP request.
OK = Request was successful. OSDS resource monitoring in the requested destination will be halted. May also include:
- JOB ALREADY INACTIVE = OSDS resource monitoring was already disabled.
RL = Retry later. The request cannot be initiated now because:
- CMP SOFT SWITCH INPG = A CMP soft switch is in progress.
- CMP UNAVAILABLE = Requested CMP is out of service, initializing, or unavailable.

5. REFERENCES

Input Message(s):
OP:PERF

Output Message(s):
OP:PERF

Input Appendix(es):
APP:RANGES

ID STP:PLTLK
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Stops the currently executing action on a PCT (Peripheral Control and Timing) line and trunk unit link.

2. FORMAT

STP:[a,]PLTLK=b-c-d-e;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the PCT link). Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = PLTU (PCT Line and Trunk Unit) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = PCT Facility Interface number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = PCT Facility Interface side number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- UCL = Remove unconditionally.

4. SYSTEM RESPONSE

- NG = No good. Valid values are:
- REASON FOR NG = The message form is valid, but the request conflicts with current status.
- PF = Printout follows. A STP PLTLK output message follows.
- RL = Retry later. The request cannot be executed now due to unavailable system resource.

5. REFERENCES

Input Message(s):

ABT:PLTLK
DGN:PLTLK
RST:PLTLK
RMV:PLTLK
SW:PLTLK

Output Message(s):

STP:PLTLK

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*

235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1430 (PLTU Status page)

ID STP:PM-A
RELEASE 5E15 only
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests that a specific integrated services digital network (ISDN) channel protocol monitoring (PM) session or all protocol monitoring sessions be stopped. If XLATE is requested, the American standard code for information interchange (ASCII) translation of the hexadecimal data currently collected for the specified session(s) will be sent to the ASCII translation file (ATF) atf.xxx. If DUMP is requested for a PM session that was initiated with the XLATE input message, the ASCII translation of the hexadecimal data currently collected for the specified session(s) will be sent to the ATF. Otherwise, if DUMP is requested, the hexadecimal data currently collected for the specified session(s) will be displayed.

2. FORMAT

STP:PM{,SES=a|ALL}[,DUMP][,PRINT][,XLATE];

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

ALL = Stop all protocol monitoring sessions.

DUMP = Dump the recorded data before the session is terminated. If the PM session was initiated with the XLATE option, dumping the data will have the same result as issuing the STP:PM input message with the XLATE option. Otherwise, the hexadecimal data will be displayed.

PRINT = Print the EXC PM STOPPED output on the receive-only printer (ROP).

Note: If the request is initiated from the Master Control Center (MCC) or a supplemental trunk and line workstation (STLWS), the output is automatically printed on the ROP. Any other device requires this option for printing output on the ROP.

Note: If the output from this PM session is being translated because the session was initiated with the XLATE option, or because the STP:PM input message was given with the XLATE option, the PRINT option will have no impact. Translated data will never go to the ROP.

XLATE = Translate the hexadecimal data messages of the recording session into ASCII and store the translated output in a file on the moving head disk (MHD) of the administrative module (AM). Translation capability is a "secured feature". If the feature is not activated, the information will be reported in hex format. Translation is not available for all protocols. Translation is supported for LapB, LapD, Q.931 (Custom only), X.25, and X.75. Protocols. If the translation of the protocol is not supported, the information will be reported in hex format. The file name will be formatted atf.xxx where xxx corresponds to the session number of the protocol monitoring session. The protocol translator will store the ATF in a predetermined location. The location is presently /unixa/users/pmtran/atf.xxx. The full path name of the ATF will appear in the ROP output.

Note: If the data collection phase of the session has terminated prior to the execution of the STP:PM input message, translation is no longer an option.

Note: Translated data will never go to the ROP.

- a = The protocol monitoring session (SES) specified in the EXC PM STARTED output message.

4. SYSTEM RESPONSE

- NG = No good. The message was not recognized, or was not acceptable.
- PF = Printout follows. The request has been accepted and is in progress. Followed by the STP:PM output message.
- RL = Retry later. The system is busy.

5. REFERENCES

Input Message(s):

EXC:PM
OP:PM

Output Message(s):

EXC:PM
OP:PM
STP:PM

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-190-130 *Local Area Services Features*
235-900-301 *ISDN Basic Rate Interface Specification*

ID STP:PM-B
RELEASE 5E16(1) and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests that a specific integrated services digital network (ISDN) channel protocol monitoring (PM) session or all protocol monitoring sessions be stopped. After the introduction of PCF on PHE2 feature, it is also used to stop a PCF PM session. If SES=ALL is specified, all the PM sessions will be stopped. If XLATE is requested, the American standard code for information interchange (ASCII) translation of the hexadecimal data currently collected for the specified session(s) will be sent to the ASCII translation file (ATF) atf.xxx. If DUMP is requested for a PM session that was initiated with the XLATE input message, the ASCII translation of the hexadecimal data currently collected for the specified session(s) will be sent to the ATF. Otherwise, if DUMP is requested, the hexadecimal data currently collected for the specified session(s) will be displayed.

2. FORMAT

STP:PM{,SES=a|ALL}[,DUMP][,PRINT][,XLATE];

3. EXPLANATION OF MESSAGE

Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

ALL = Stop all protocol monitoring sessions.

DUMP = Dump the recorded data before the session is terminated. If the PM session was initiated with the XLATE option, dumping the data will have the same result as issuing the STP:PM input message with the XLATE option. Otherwise, the hexadecimal data will be displayed.

PRINT = Print the EXC PM STOPPED output on the ROP.

If the request is initiated from the Master Control Center (MCC) or a supplemental trunk and line workstation (STLWS), the output is automatically printed on the ROP. Any other device requires this option for printing output on the ROP.

If the output from this PM session is being translated because the session was initiated with the XLATE option, or because the STP:PM input message was given with the XLATE option, the PRINT option will have no impact. Translated data will never go to the ROP.

XLATE = Translate the hexadecimal data messages of the recording session into ASCII and store the translated output in a file on the moving head disk (MHD) of the administrative module (AM). Translation capability is a "secured feature". If the feature is not activated, the information will be reported in hex format. Translation is not available for all protocols. Translation is supported for LAPB, LAPD, Q.931 (Custom only), X.25, X.75, and RLP protocols. If the translation of the protocol is not supported, the information will be reported in hex format. The file name will be formatted atf.xxx where xxx corresponds to the session number of the protocol monitoring session. The protocol translator will store the ATF in a predetermined location. The location is presently /unixa/users/pmtran/atf.xxx. The full path name of the ATF will appear in the ROP output.

If the data collection phase of the session has terminated prior to the execution of the STP:PM input message, translation is no longer an option.

Translated data will never go to the ROP.

- a = The protocol monitoring session (SES) specified in the EXC PM STARTED output message.

4. SYSTEM RESPONSE

- NG = No good. The message was not recognized, or was not acceptable.
- PF = Printout follows. The request has been accepted and is in progress. Followed by the STP:PM output message.
- RL = Retry later. The system is busy.

5. REFERENCES

Input Message(s):

EXC:PM
OP:PM

Output Message(s):

EXC:PM
OP:PM
STP:PM

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-190-104 *ISDN Feature Descriptions*
235-190-130 *Local Area Signaling Services*
235-900-341 *National ISDN Basic Rate Interface Specification*

ID STP:PMCCS
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that a specific CCS protocol monitoring (PM) session or all CCS protocol monitoring sessions be stopped. If DISCARD is specified, any data collected for the session(s) will be discarded (i.e. not reported). If the data is to be reported, the default format of the data will be the format that was specified on the initiating EXC:PMCCS command for that session. That is, if the EXC:PMCCS command initiating this session defaulted to XLATE, then the STP:PMCCS output will also be translated as a default. Similarly, if the EXC:PMCCS command initiating this session was specified to provide a HEXDUMP, then the STP:PMCCS output will also provide a HEXDUMP as a default. Two options are provided to override the STP:PMCCS default output format. Specifying XLATE on the STP:PMCCS will provide translation of the hexadecimal data in an ASCII translation file (ATF) atf.xxx. If HEXDUMP is requested for the STP:PMCCS command, the hexadecimal data currently collected for the specified session(s) will be displayed on the receive-only printer (ROP).

Note: The STP:PMCCS command stops all subsequent sessions related to the session specified. That is, if the STP:PMCCS command is issued to stop a session that was initiated with the REPEAT option, the session will not REPEAT.

2. FORMAT

STP:PMCCS{,SES=a|ALL}[,XLATE|HEXDUMP|DISCARD];

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format. The default behavior for the STP:PMCCS command is to display the data as was requested in the EXC:PMCCS command which initiated the request.

ALL = Stop all CCS protocol monitoring sessions.

XLATE = Translate the hexadecimal data messages of the recording session into ASCII and store the translated output in a file on the moving head disk (MHD) of the administrative module (AM). Overrides EXC:PMCCS specification. If the translation of the protocol is not supported, the information will be reported in hexadecimal format. The file name will be formatted atf.xxx where xxx corresponds to the session number of the protocol monitoring session. The protocol translator will store the ATF in a predetermined location. The location is presently /unixa/users/pmtran/atf.xxx. The full path name of the ATF will appear in the ROP output.

HEXDUMP = Report the data in hexadecimal format on the ROP. Overrides EXC:PMCCS specification.

DISCARD = Do not report any data collected. This option can be used to stop sessions that are in a TRANSIENT STATE.

a = The CCS protocol monitoring session (SES) specified in the EXC PMCCS STARTED output message.

4. SYSTEM RESPONSE

NG = No good. The message was not recognized, or was not acceptable.

PF = Printout follows. The request has been accepted and is in progress. Followed by the STP:PMCCS output message.

RL = Retry later. The system is busy.

5. REFERENCES

Input Message(s):

EXC:PMCCS

OP:PMCCS

Output Message(s):

EXC:PMCCS

OP:PMCCS

STP:PMCCS

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*

ID STP:PMU
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on the pulse metering unit (PMU) at the specified location be stopped.

2. FORMAT

STP:[a,]PMU=b-c-d;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the PMU). Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message form is valid, but the request conflicts with current status.
- PF = Printout follows. Followed by the STP:PMU output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

DGN:PMU
EX:PMU
RMV:PMU
RST:PMU

Output Message(s):

STP:PMU

Input Appendix(es):

APP:RANGES

ID STP:PPC
RELEASE 5E15 and later
COMMAND GROUP CM
APPLICATION 5

1. PURPOSE

Requests that actions on the specified pump peripheral controller (PPC) be stopped.

Stop is differentiated from abort by the action of the request. A stop action is not immediate, but waits for a 'clean' point of termination (such as, the end of a phase), and will attempt to leave the hardware in a sane state. An abort action is immediate and the state of the hardware is not guaranteed.

2. FORMAT

STP:a,PPC=b;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is any action currently waiting or executing on the PPC).
Valid value(s):
- | | |
|-----|---------------------------------|
| DGN | = Diagnose. (Not valid for CM3) |
| EX | = Exercise. (Not valid for CM3) |
| RST | = Restore. |
- b = PPC number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- IP = In progress. The stop has been initiated. A completion message will be printed for the original request when the stop has completed.
- NG = No good. The request has been denied. The message syntax is invalid, but the request could not be processed. Refer to the APP:CM-IM-REASON appendix in the Appendixes section of the Input Messages manual for a list of possible reasons for denying the request.

5. REFERENCES

Input Message(s):

DGN:PPC
EX:PPC
OP:DMQ
RST:PPC

Output Message(s):

DGN:PPC
EX:PPC
OP:DMQ-CM
RST:PPC

Input Appendix(es):

APP:CM-IM-REASON
APP:RANGES

ID STP:PPPLK
RELEASE 5E16(2) and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the currently executing maintenance action on an optical interface unit (OIU) point to point protocol link (PPPLK) be stopped.

2. FORMAT

STP:[a,]PPPLK=b-c-d-e-f;

3. EXPLANATION OF MESSAGE

- a = Action being stopped (default is the currently executing action). Valid value(s):
 - RMV = Remove.
 - RST = Restore.
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = OIU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Protection group (PG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Optical carrier - level 3 concatenated (OC3C) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = Synchronous transport signal - level 3 concatenated (STS3C) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with current status.
- PF = Printout follows. Followed by the STP:PPPLK output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

ABT:PPPLK
RMV:PPPLK
RST:PPPLK

Output Message(s):

STP:PPPLK

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1494 OIU PKT STATUS

ID STP:PROTO
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on the protocol circuit (PROTO) at the specified location be stopped.

2. FORMAT

STP:[a,]PROTO=b-c-d;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the PROTO). Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message form is valid, but the request conflicts with current status.
- PF = Printout follows. Followed by the STP:PROTO output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

DGN:PROTO
EX:PROTO
RMV:PROTO
RST:PROTO

Output Message(s):

STP:PROTO

Input Appendix(es):

APP:RANGES

ID STP:PSUCOM-A
RELEASE 5E15 only
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on a packet switch unit (PSU) common controller (COM) be stopped.

Note: Execution of this message may require further action to put the unit into a sane state.
Refer to the References section of this message.

2. FORMAT

STP:[a,]PSUCOM=c-d-e[-f];

3. EXPLANATION OF MESSAGE

a = Action to be stopped. Valid value(s):

DGN = Diagnose.
EX = Exercise.
RMV = Remove.
RST = Restore.

Note: The default is the action currently executing on the PSU.

c = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

d = PSU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

e = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

f = Protocol handler number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. The message form is valid, but the request conflicts with current status.

PF = Printout follows. Followed by the STP:PSU output message.

5. REFERENCES

Input Message(s):

DGN:PSU
EX:PSU
OP:DMQ
OP:OOS
RMV:PSU
RST:PSUCOM
RST:PSUPH

Output Message(s):

STP:PSU

Input Appendix(es):

APP:RANGES

MCC Display Page(s):
PSU SHELF
PSU NETWORK

ID STP:PSUCOM-B
RELEASE 5E16(1) and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on a packet switch unit (PSU) common controller (COM) be stopped.

Note: Execution of this message may require further action to put the unit into a sane state.
Refer to the References section of this message.

2. FORMAT

STP:[a,]PSUCOM=c-d-e[-f];

3. EXPLANATION OF MESSAGE

a = Action to be stopped. Valid value(s):

DGN = Diagnose.
EX = Exercise.
RMV = Remove.
RST = Restore.

Note: The default is the action currently executing on the PSU.

c = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

d = PSU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

e = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

f = Protocol handler number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. The message form is valid, but the request conflicts with current status.

PF = Printout follows. Followed by the STP:PSU output message.

5. REFERENCES

Input Message(s):

DGN:PSU
EX:PSU
OP:DMQ
OP:OOS
RMV:PSU
RST:PSUCOM
RST:PSUPH

Output Message(s):

STP:PSU

Input Appendix(es):

APP:RANGES

MCC Display Page(s):
PSU SHELF
PSU NETWORK

ID STP:PSUPH-A
RELEASE 5E15 only
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on a packet switch unit (PSU) protocol handler (PH) be stopped.

Note: Execution of this message may require further action to put the unit into a sane state.
Refer to the References section of this message.

2. FORMAT

STP:[a,]PSUPH=c-d-e[-f];

3. EXPLANATION OF MESSAGE

a = Action to be stopped. Valid value(s):

DGN = Diagnose.
EX = Exercise.
RMV = Remove.
RST = Restore.

Note: The default is the action currently executing on the PSU.

c = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

d = PSU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

e = Shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

f = Protocol handler number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. The message form is valid, but the request conflicts with current status.

PF = Printout follows. Followed by the STP:PSU output message.

5. REFERENCES

Input Message(s):

DGN:PSU
EX:PSU
OP:DMQ
OP:OOS
RMV:PSU
RST:PSUCOM
RST:PSUPH

Output Message(s):

STP:PSU

Input Appendix(es):

APP:RANGES

MCC Display Page(s):
PSU SHELF
PSU NETWORK

ID STP:PSUPH-B
RELEASE 5E16(1) and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on a packet switch unit (PSU) protocol handler (PH) be stopped.

Note: Execution of this message may require further action to put the unit into a sane state.
Refer to the References section of this message.

2. FORMAT

STP:[a,]PSUPH=c-d-e[-f];

3. EXPLANATION OF MESSAGE

a = Action to be stopped. Valid value(s):

DGN = Diagnose.
EX = Exercise.
RMV = Remove.
RST = Restore.

Note: The default is the action currently executing on the PSU.

c = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

d = PSU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

e = Shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

f = Protocol handler number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. The message form is valid, but the request conflicts with current status.

PF = Printout follows. Followed by the STP:PSU output message.

5. REFERENCES

Input Message(s):

DGN:PSU
EX:PSU
OP:DMQ
OP:OOS
RMV:PSU
RST:PSUCOM
RST:PSUPH

Output Message(s):

STP:PSU

Input Appendix(es):

APP:RANGES

MCC Display Page(s):
PSU SHELF
PSU NETWORK

ID STP:PSUPIDB
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on a packet switch unit (PSU) shelf peripheral interface data bus (PIDB) be stopped.

2. FORMAT

STP:[a,]PSUPIDB=b-c-d-e;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (the default action is the action currently executing on the PSU PIDB). Valid value(s):
- | | |
|-----|------------|
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = PSU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = PIDB number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message is valid but the request conflicts with current status.
- PF = Printout follows. Followed by the STP:PSUPIDB output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):
OP:OOS
RMV:PSUPIDB
RST:PSUPIDB

Output Message(s):
STP:PSUPIDB

Input Appendix(es):
APP:RANGES

ID STP:QGP
RELEASE 5E15 and later
COMMAND GROUP CM
APPLICATION 5

1. PURPOSE

Requests that actions on a quad-link packet switch (QLPS) gateway processor (QGP) be stopped (STP).

2. FORMAT

STP:[a,]QGP=b-c;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped. This input message will stop all requests with the specified action either waiting or executing for the QGP; if no action is given, all requests for the QGP are stopped. Valid value(s):
- | | |
|-------|---|
| DGN | = Diagnose. (Not valid for CM3) |
| EX | = Exercise. (Not valid for CM3) |
| RST | = Restore. |
| blank | = Any or all the above actions currently waiting or executing on the QGP. |
- b = Message switch (MSG) side number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = QGP number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message syntax is valid but the request could not be processed. Refer to the APP:CM-IM-REASON appendix in the Appendixes section of the Input Messages manual for a list of possible reasons for denying the request.
- PF = Printout follows. Followed by the STP:QGP output message.

5. REFERENCES

Input Message(s):

DGN:QGP
EX:QGP
OP:DMQ-CM-SM
RST:QGP

Output Message(s):

DGN:QGP
EX:QGP
OP:DMQ-CM
RST:QGP

Input Appendix(es):

APP:CM-IM-REASON
APP:RANGES

ID STP:RAF
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the specified actions on the recorded announcement function (RAF) unit be stopped.

2. FORMAT

STP:[a,]RAF=b-c;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the RAF). Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module (SM) number.
- c = RAF unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied because it conflicts with current equipment status. May also include:
- SM DOES NOT EXIST = The requested SM does not exist in the system.
 - SM UNEQUIPPED = The SM specified in the request is unequipped.
 - UNIT DOES NOT EXIST = The requested unit does not exist in the system.
- PF = Printout follows. The request has been accepted. Followed by an STP:RAF output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources. The message may be entered again later.

5. REFERENCES

Input Message(s):

ABT:RAF
DGN:RAF
EX:RAF
RMV:RAF
RST:RAF

Output Message(s):

STP:RAF

Input Appendix(es):

APP:RANGES

ID STP:RAU
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that maintenance actions on the remote switching module (RSM) alarm (RAU) circuit be stopped.

2. FORMAT

STP:[a,]RAU=b;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the RAU). Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. Request denied because of a conflict with current status.
- PF = Printout follows. Followed by the STP:RAU output message.

5. REFERENCES

Input Message(s):

DGN:RAU
EX:RAU
RMV:RAU
RST:RAU

Output Message(s):

STP:RAU

Input Appendix(es):

APP:RANGES

ID STP:RCHIST
RELEASE 5E15 and later
COMMAND GROUP RCV
APPLICATION 5

1. PURPOSE

Requests that a previously entered REPT:RCHIST input message be stopped.

2. FORMAT

STP:RCHIST[,CLERK=a];

3. EXPLANATION OF MESSAGE

a = Clerk name, consisting of no more than eight American standard code for information interchange (ASCII) characters excluding blanks and special characters.

4. SYSTEM RESPONSE

PF = Printout follows. The request was accepted. Followed by an STP:RCHIST output message.

5. REFERENCES

Input Message(s):
OP:RCHIST
REPT:RCHIST

Output Message(s):
OP:RCHIST
REPT:RCHIST
STP:RCHIST

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-24x *Software Release Retrofit*

ID STP:RCLK
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that maintenance actions on the remote clock (RCLK) circuit be stopped. The unit is left out-of-service.

2. FORMAT

STP:[a,]RCLK=b-c;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the RCLK):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = RCLK side. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. May also include:
- NOT STARTED UNIT IN GROWTH STATE
 - SM DOES NOT EXIST
 - SM UNEQUIPPED
 - UNIT DOES NOT EXIST
- PF = Printout follows. Followed by the STP:RCLK output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

DGN:RCLK
EX:RCLK
RMV:RCLK
RST:RCLK

Output Message(s):

STP:RCLK

Input Appendix(es):

APP:RANGES

MCC Display Page(s):

(RSM RCU)

ID STP:RCL
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that maintenance actions on an inter-remote switching module (RSM) communication link (RCL) be stopped.

2. FORMAT

STP:[a,]RCL=b-c-d-e;

3. EXPLANATION OF MESSAGE

- a = Action being stopped (default is the action currently executing on the RCL). Valid value(s):
- | | |
|-----|------------|
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Digital line and trunk unit (DLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Inter-RSM communication link digital facilities interface (CDFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Facility (FAC) number. The FAC number is the T1 facility number on a CDFI. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message syntax is valid, but the request conflicts with current system or equipment status. May also include:
- NOT STARTED UNIT IN GROWTH STATE
 - SM DOES NOT EXIST
 - SM UNEQUIPPED
 - UNIT DOES NOT EXIST
- PF = Printout follows. Followed by the STP:RCL output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

RMV:RCL

RST:RCL

Output Message(s):

STP:RCL

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-220 *Corrective Maintenance*

ID STP:RCRLS
RELEASE 5E15 and later
COMMAND GROUP RCV
APPLICATION 5

1. PURPOSE

Requests that a previously entered EXC:RCRLS input message be stopped.

2. FORMAT

STP:RCRLS[,CLERK=a];

3. EXPLANATION OF MESSAGE

Upon completion of this input message, all recent changes applied before this input message was entered remain applied.

a = Clerk name, consisting of no more than eight (8) ASCII characters excluding blanks and special characters.

4. SYSTEM RESPONSE

PF = Printout follows. The request was accepted. Followed by an STP:RCRLS output message.

5. REFERENCES

Input Message(s):
EXC:RCRLS
OP:RCHIST

Output Message(s):
EXC:RCRLS
OP:RCHIST
STP:RCHIST
STP:RCRLS

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-24x *Software Release Retrofit*

ID STP:RCRMV
RELEASE 5E15 and later
COMMAND GROUP RCV
APPLICATION 5

1. PURPOSE

Requests that a previously entered EXC:RCRMV input message for a delayed release clerkfile be stopped.

2. FORMAT

STP:RCRMV[,CLERK=a];

3. EXPLANATION OF MESSAGE

Upon successful completion of this message, no recent changes are removed from the clerkfile being processed by the EXC:RCRMV input message.

a = Clerk name, consisting of no more than eight (8) ASCII characters excluding blanks and special characters.

4. SYSTEM RESPONSE

PF = Printout follows. The request was accepted. Followed by an STP:RCRMV output message.

5. REFERENCES

Input Message(s):
EXC:RCRMV
OP:RCHIST

Output Message(s):
EXC:RCRMV
OP:RCHIST
STP:RCHIST
STP:RCRMV

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-24x *Software Release Retrofit*

ID STP:RDTA
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests that a given active remote digital test access (RDTA) session be stopped.

The active RDTA session will be terminated based on the session number returned in the EXC RDTA output message after the connection was setup. The session number must either be known by the user attempting maintenance or it can be found by exercising the OP:RDTA input message to receive information on all sessions (SES=ALL option). This session number input verifies the user's knowledge of the session's status to the switch when changes are made affecting the session.

2. FORMAT

STP:RDTA,SES=a;

3. EXPLANATION OF MESSAGE

a = Session number of the active RDTA connection to be stopped.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the STP:RDTA output message.

RL = Retry later. May also include:

- FAILED TO CREATE PROCESS = A system error has occurred. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.
- TOO MANY PROCESSES ACTIVE = The request has been denied, probably due to system load.

5. REFERENCES

Input Message(s):

OP:RDTA
EXC:RDTA
UPD:RDTA
VFY:RDTA

Output Message(s):

EXC:RDTA
OP:RDTA
STP:RDTA
UPD:RDTA
VFY:RDTA

ID STP:REX-CM-SM
RELEASE 5E15 and later
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests that either one or all valid test types of routine exercise (REX) of the hardware be stopped in the communication module (CM) and all switching modules (SMs) or in the CM or in a range of SMs.

2. FORMAT

STP:REX[,CM|,SM=a[&&b]][,c];

3. EXPLANATION OF MESSAGE

- a = Number of the SM or lower limit of a range of SM numbers. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Upper limit of a range of SM numbers. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = REX test type to be stopped (default is to stop all valid test types). Valid value(s):
 - DGN = Stop diagnostic exercise
 - ELS = Stop electronic loop segregation tests. This is not a valid test type for the CM.
 - FAB = Stop fabric exerciser tests of grids. This is not a valid test type for the CM.

Note: If neither CM nor SM is specified, the default is to stop exercise hardware in the CM and all SMs.

4. SYSTEM RESPONSE

- NG = No good. The request was not a valid entry.
- PF = Printout follows. Request is valid and output message will follow.
- RL = Retry later. SM is in an abnormal state. The request cannot be executed now.

5. REFERENCES

Input Message(s):
EXC:REX-CM-SM

Output Message(s):
EXC:REX

Input Appendix(es):
APP:RANGES

ID STP:RLI
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that maintenance actions be stopped on the remote switching module (RSM) remote link interface (RLI) circuit.

2. FORMAT

STP:[a,]RLI=b-c;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the RLI). Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = RLI number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. Request denied because of a conflict with current status.
- PF = Printout follows. Followed by the STP:RLI output message.

5. REFERENCES

Input Message(s):

DGN:RLI
EX:RLI
RMV:RLI
RST:RLI

Output Message(s):

STP:RLI

Input Appendix(es):

APP:RANGES

ID STP:RMV-RT
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the actions on a remote terminal (RT) for the specified unit circuit be stopped. This message is applicable for TR303 RTs terminating on an integrated digital carrier unit (IDCU) or a digital networking unit - synchronous optical network (DNU-S).

2. FORMAT

STP:RMV RT,a;

3. EXPLANATION OF MESSAGE

- a = Unit to be stopped. Valid value(s):
EOC=b - c
TMC=b - d
- b = Site identification number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = EOC number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = TMC number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied because of a conflict with current status.
- PF = Printout follows. Followed by the corresponding output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

RMV:RT-EOC
RMV:RT-TMC
RST:RT-EOC
RST:RT-TMC

Output Message(s):

STP:RT-EOC
STP:RT-TMC

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1660,xxxx TR303 REMOVTE TERMINAL

188xyy IDCU REMOVTE TERMINAL

ID STP:RPCU
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION AEWNC

1. PURPOSE

Requests that the printing of alarmed radio port controller units (RPCUs) by an OP:RPCU input message be stopped.

2. FORMAT

STP:RPCU,ALARM;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NG = The input message is not valid.
PF = Printout follows. The request has been accepted. Followed by the STP:RPCU output message.
RL = Retry later. May also include:
 - FAILED TO CREATE PROCESS A system error has occurred in executing the STP:RPCU input message.

5. REFERENCES

Input Message(s):
OP:RPCU

Output Message(s):
STP:RPCU
OP:RPCU

Other Manual(s):

230-701-100 **Air Extension**SM *Reference Manual*
230-701-120 **Air Extension** *User's Guide*

ID STP:RRCLK
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that maintenance actions be stopped on a remote integrated services line unit (RISLU) remote clock circuit pack (RRCLK).

2. FORMAT

STP:[a,]RRCLK=b-c-d;

3. EXPLANATION OF MESSAGE

a = Action to be stopped. Valid value(s):

DGN	= Diagnose.
EX	= Exercise.
RMV	= Remove.
RST	= Restore.
SW	= Switch.

Note: The default is the action currently executing on the RRCLK.

b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

c = RISLU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

d = RRCLK number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. May also include:
-CONFLICT WITH UNIT STATE
-SM DOES NOT EXIST
-SM UNEQUIPPED
-UNIT DOES NOT EXIST

PF = Printout follows. Followed by the STP:RRCLK output message.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

DGN:RRCLK
EX:RRCLK
RMV:RRCLK
RST:RRCLK
SW:RRCLK

Output Message(s):

STP:RRCLK

Input Appendix(es):
APP:RANGES

ID STP:RST-RT
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the actions on a remote terminal (RT) for the specified unit circuit be stopped. This message is applicable for TR303 RTs terminating on an integrated digital carrier unit (IDCU) or a digital networking unit - synchronous optical network (DNU-S).

2. FORMAT

STP:RST RT,a;

3. EXPLANATION OF MESSAGE

- a = Unit to be stopped. Valid value(s):
EOC=b - c
TMC=b - d
- b = Site identification number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = EOC number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = TMC number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied because of a conflict with current status.
- PF = Printout follows. Followed by the corresponding output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

RMV:RT-EOC
RMV:RT-TMC
RST:RT-EOC
RST:RT-TMC

Output Message(s):

STP:RT-EOC
STP:RT-TMC

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1660,xxxx TR303 REMOTE TERMINAL

188xyy IDCU REMOTE TERMINAL
 RSM RCU

ID STP:RST-TRK-A
RELEASE 5E15 only
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests that a RST:TRK request be stopped and the trunk(s) be put back into an appropriate out-of-service status. The same identifier used in the original RST:TRK input command must be used with this command.

2. FORMAT

STP:RST,TRK,{a|PID=b-c}[,UCL]

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

UCL = Execute the removal unconditionally. All stable calls will be disconnected (traffic release).

a = Equipment number or identifier. Valid value(s): .nf DEN=d-e-f-g ILEN=d-h-i-j
INEN=d-k-i-j NEN=d-k-l-a¹-m-n-b¹-o PLTEN=d-c²-d²-e²-f² PRIGRP=p
PSUEN=d-q-r-s-t TEN=d-u-v-w-x TG=y TKGMN=y-z .fi

b = Task process number associated with the task.

c = A uniqueness qualifier to further identify the task.

Note: The PID and UNIQ values can be obtained from the OP:JOBSTATUS input message.

d =SM number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

e =Digital line and trunk unit (DLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

f =Digital facility interface (DFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

g =Channel number or ALL. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

h =Integrated digital carrier unit (IDCU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

i =Remote terminal (RT) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

j =RT line number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

k =DNU-S number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

l =Data group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

m =Synchronous transport signal (STS) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

n =Virtual tributary 1.5 (VT1.5) group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

o	=Digital signal level 0 (DS0) number or ALL. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
p	=Primary rate interface (PRI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
q	=PSU unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
r	=PSU shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
s	=PSU channel group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
t	=Line group number or ALL. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
u	=Trunk unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
v	=Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
w	=Channel board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
x	=Circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
y	=Trunk group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
z	=Trunk member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
a ¹	= Signalling terminating equipment (STE) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
b ¹	= VT1.5 member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
c ¹	= Peripheral control and timing line and trunk unit (PLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
d ¹	= PCT facility interface (PCTFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
e ¹	= Tributary number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
f ¹	= Channel number or ALL. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NA	= Not available. May also include: - FEATURE NOT LOADED = The special feature is not turned on.
PF	= The request has been accepted and the STP:RST output message follows.

5. REFERENCES

Input Message(s):
RST:TRK

OP:JOBSTATUS

Output Message(s):

STP:RST

RMV:TRK

RST:TRK

OP:JOBSTATUS

Input Appendix(es):

APP:RANGES

ID STP:RST-TRK-B
RELEASE 5E16(1) and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests that a RST:TRK request be stopped and the trunk(s) be put back into an appropriate out-of-service status. The same identifier used in the original RST:TRK input message must be used with this one.

2. FORMAT

STP:RST,TRK,{a|PID=b-c}[,UCL]

3. EXPLANATION OF MESSAGE

Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

- UCL = Execute the removal unconditionally. All stable calls will be disconnected (traffic release).
- a = Equipment number or identifier. Valid value(s):
ATMPP=d-q-i¹-j¹
DEN=d-e-f-g
ILEN=d-h-i-j
INEN=d-k-i-j
NEN=d-k-l-a¹-m-n-b¹-o
OIUEN=d-k¹-l¹-m¹-n¹-b¹-f¹
PLTEN=d-c¹-d¹-e¹-f¹
PRIGRP=p
PSUEN=d-q-r-s-t
TEN=d-u-v-w-x
TG=y
TKGMN=y-z
VTRK=d-g¹-h¹
- b = Task process number associated with the task.
- c = A uniqueness qualifier to further identify the task. The PID and UNIQ values can be obtained from the OP:JOBSTATUS input message.
- d = SM number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Digital line and trunk unit (DLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = Digital facility interface (DFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- g = Channel number or ALL. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- h = Integrated digital carrier unit (IDCU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- i = Remote terminal (RT) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

- j = RT line number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- k = Digital network unit - synchronous optical network (SONET) (DNU-S) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- l = Data group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- m = Synchronous transport signal (STS) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- n = Virtual tributary 1.5 group (VTGRP) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- o = Digital signal level 0 (DS0) number or ALL. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- p = Primary rate interface (PRI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- q = PSU unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- r = PSU shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- s = PSU channel group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- t = Line group number or ALL. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- u = Trunk unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- v = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- w = Channel board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- x = Circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- y = Trunk group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- z = Trunk member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- a¹ = SONET terminating equipment (STE) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b¹ = Virtual tributary 1.5 member (VTMEM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c¹ = Peripheral control and timing line and trunk unit (PLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d¹ = PCT facility interface (PCTFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e¹ = Tributary number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f¹ = Channel number or ALL. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

- g¹ = Virtual trunk facility number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- h¹ = Virtual trunk channel number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- i¹ = Link number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- j¹ = Virtual connection identifier (VCID) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- k¹ = Office interface unit (OIU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- l¹ = Protection group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- m¹ = OC-3 STE number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- n¹ = STS level 1 (STS-1) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NA = Not available. May also include:
- FEATURE NOT LOADED = The special feature is not turned on.
- PF = Printout follows. The request has been accepted and the STP:RST output message follows.

5. REFERENCES

Input Message(s):
RST:TRK
OP:JOBSTATUS

Output Message(s):
STP:RST
RMV:TRK
RST:TRK
OP:JOBSTATUS

Input Appendix(es):
APP:RANGES

ID STP:RTFAC
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on a remote terminal (RT) facility (FAC) circuit be stopped. This message is applicable for TR303 RTs (that is, AT&T Series 5 RTs running Feature Package 303G) terminating on a digital networking unit - synchronous optical network (DNU-S). This is an alternative way to address a DS1SFAC facility.

2. FORMAT

STP:[a,] RTFAC=b-c;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (the default action is the action currently executing on the RT FAC). Valid values are:
- RMV = Remove.
 RST = Restore.
- b = Site identification number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = RT FAC number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message is valid but the request conflicts with current status.
- PF = Printout follows. Followed by the STP:RTFAC output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

RMV:RTFAC

RST:RTFAC

Output Message(s):

STP:RTFAC

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*

235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1511,x,yy (DNUS STS MAINTENANCE)

1512,x,yy (DNUS STS DS1 APPLICATION)

1660,xxxx (TR303 REMOTE TERMINAL)

ID STP:RVPT
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that currently running actions be stopped gracefully on the revertive pulsing transceiver (RVPT) at the specified location.

2. FORMAT

STP:[e,]RVPT=a-b-c-d;

3. EXPLANATION OF MESSAGE

- a = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Service group. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = The action to be stopped. Valid value(s):
 - DGN = Diagnose.
 - EX = Exercise.
 - RMV = Remove.
 - RST = Restore.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message form is valid, but the request conflicts with current status.
- PF = Printout follows. Followed by the STP:RVPT output message.
- RL = Repeat later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

DGN:RVPT

EX:RVPT

RMV:RVPT

RST:RVPT

Output Message(s):

STP:RVPT

Input Appendix(es):

APP:RANGES

ID STP:S7RPT
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Terminates an observation scope for all selected blocking, reset, unblocking, continuity, circuit query, and circuit validation CCSMTCE messages.

It turns off all selected blocking, reset, unblocking, continuity, circuit query, and circuit validation messages for trunks assigned to the specified origination point code (OPC), destination point code (DPC), and optional circuit identification code (CIC).

This input message has no affect if the ALW:S7RPT input message has not been entered.

2. FORMAT

STP:S7RPT,OPC=a,DPC=b[,CIC=c];

3. EXPLANATION OF MESSAGE

- a = OPC identification.
- b = DPC identification.
- c = CIC identification.

4. SYSTEM RESPONSE

- NG = No good. May also include:
- FEATURE NOT AVAILABLE = The input message cannot be used in this office. The office should be upgraded.
 - S7RPT NOT ALLOWED = The ALW:S7RPT input message must be issued for STP:S7RPT input message to have any affect.
 - HARDWARE NOT OPERATIONAL = The office does not have SS7 trunks.
 - PARAMETER COMBINATION ERROR = The input message parameter combination is wrong.
 - OBSERVATION SCOPE NOT ACTIVE = No observation scopes are active.
- PF = Printout follows. Followed by the EXC:S7RPT output message.

5. REFERENCES

Input Message(s):

ALW:S7RPT
INH:S7RPT
EXC:S7RPT
OP:S7RPT

Output Message(s):

STP:S7RPT

ID STP:S7XCHK
RELEASE 5E15 and later
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Request that the active PCI7GR cross check request be stopped. Both demand PCI7GR cross check, initiated by an EXC:S7XCHK request, and periodic automatic cross check administered by RC/V View 8.15 (CCS OFFICE PARAMETERS) can be stopped by this input message.

2. FORMAT

STP:S7XCHK[,TYPE=a];

3. EXPLANATION OF MESSAGE

a = Demand PCI7GR cross check. Valid value(s):
 PCI7GR

4. SYSTEM RESPONSE

NG = No good. The request has been denied. Valid value(s):
 - PCI7GR CROSS CHECK NOT RUNNING = Can not stop since no PCI7GR cross check
 is currently running.
OK = The message has been accepted.

5. REFERENCES

Input Message(s):
 ALW:S7XCHK
 EXC:S7XCHK
 INH:S7XCHK
 OP:S7XCHK

Output Message(s):
 EXC:S7XCHK

Input Appendix(es):
 APP:RANGES

RC/V View(s):

8.15 CCS OFFICE PARAMETERS

ID STP:SAS
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the specified actions on the service announcement system (SAS) unit be stopped.

2. FORMAT

STP:[a,]SAS=b-c;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the SAS). Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = SAS unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied because it conflicts with current equipment status. May also include:
- SM DOES NOT EXIST = The requested SM does not exist in the system.
 - SM UNEQUIPPED = The SM specified in the request is unequipped.
 - UNIT DOES NOT EXIST = The requested unit does not exist in the system.
- PF = Printout follows. The request has been accepted. Followed by the STP:SAS output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources. The message may be entered again later.

5. REFERENCES

Input Message(s):

DGN:SAS
EX:SAS
RMV:SAS
RST:SAS

Output Message(s):

STP:SAS

Input Appendix(es):

APP:RANGES

ID STP:SCAN
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on the scan scan point board (SCAN) at the specified location be stopped.

2. FORMAT

STP:[a,]SCAN=b-c-d-e;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the scan point board).
Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Metallic service unit (MSU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied because of a conflict with current status.
- PF = Printout follows. Followed by the STP:SCAN output message.

5. REFERENCES

Input Message(s):

DGN:SCAN
EX:SCAN
RMV:SCAN
RST:SCAN

Output Message(s):

STP:SCAN

Input Appendix(es):

APP:RANGES

ID STP:SDFI
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on a specified *SLC*®96 digital facility interface (SDFI) be stopped.

2. FORMAT

STP:[a,]SDFI=b-c-d;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the SDFI). Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Digital carrier line unit (DCLU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = SDFI number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message form is valid, but the request conflicts with current status.
- PF = Printout follows. The request was accepted. Followed by an STP:SDFI output message.

5. REFERENCES

Input Message(s):

DGN:SDFI
EX:SDFI
RMV:SDFI
RST:SDFI

Output Message(s):

STP:SDFI

Input Appendix(es):

APP:RANGES

ID STP:SFI
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that maintenance actions be stopped on a digital networking unit - synchronous optical network (DNU-S) synchronous transport signal electrical interface (STSX-1) facility interface (SFI).

2. FORMAT

STP:[a,]SFI=b-c-d-e;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the SFI). Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = DNU-S number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Data group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = STSX-1 facility interface number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with the current status.
- PF = Printout follows. Followed by the STP:SFI output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

DGN:SFI
RMV:SFI
RST:SFI

Output Message(s):

STP:SFI

Input Appendix(es):

APP:RANGES

MCC Display Page(s):

1510 (DNUS STATUS)

ID STP:SLIM
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on the subscriber line instrument measurement (SLIM) board at a specified location be stopped.

2. FORMAT

STP:[a,]SLIM=b-c-d-e;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped. Default is the action currently executing on the SLIM board.
Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Metallic service unit (MSU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied because of a conflict with current status.
- PF = Printout follows. The STP:SLIM output message will follow.

5. REFERENCES

Input Message(s):
DGN:SLIM
EX:SLIM
RMV:SLIM
RST:SLIM

Output Message(s):
STP:SLIM

Input Appendix(es):
APP:RANGES

ID STP:SS7
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests that the processing and output of the signaling system 7 (SS7) trunk data request or task, OP:SS7, be stopped. This request stops the output of segment blocks of an OP:SS7 request that have not yet been queued for printing and any further data collection and processing. This request does not stop the output of segment blocks already queued for printing at the time that this stop request is processed.

2. FORMAT

STP:SS7;

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted and the task is in the process of being stopped. The output message STP:SS7 from the stopped task follows, or the output message STP:SS7 as a general, non-specific task output message follows.

5. REFERENCES

Input Message(s):
OP:SS7

Output Message(s):
STP:SS7
OP:SS7

Other Manual(s):
235-190-120 Common Channel Signaling Service Features

ID STP:STS1
RELEASE 5E16(1) and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the currently executing maintenance action on a synchronous transport signal - level 1 (STS1) be stopped.

2. FORMAT

STP:[a,]STS1=b-c-d-e-f;

3. EXPLANATION OF MESSAGE

- a = Action being stopped (default is the currently executing action). Valid value(s):
 - RMV = Remove.
 - RST = Restore.
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Optical interface unit (OIU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Protection group (PG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Optical carrier - level 3 (OC3) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = STS1 number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with current status.
- PF = Printout follows. Followed by the STP:STS1 output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

ABT:STS1
RMV:STS1
RST:STS1

Output Message(s):

STP:STS1

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1492 OIU STS1 STATUS

ID STP:STS3C
RELEASE 5E16(2) and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the currently executing maintenance action on a synchronous transport signal - level 3 concatenated (STS3C) facility be stopped.

2. FORMAT

STP:[a,]STS3C=b-c-d-e-f;

3. EXPLANATION OF MESSAGE

- a = Action being stopped (default is the currently executing action). Valid value(s):
- RMV = Remove.
 RST = Restore.
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Optical interface unit (OIU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Protection group (PG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Optical carrier - level 3 concatenated (OC3C) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = STS3C number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with current status.
- PF = Printout follows. Followed by the STP:STS3C output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

ABT:STS3C
RMV:STS3C
RST:STS3C

Output Message(s):

STP:STS3C

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1491 OIU OC3C STATUS

ID STP:ST-SCTP
RELEASE 5E16(2) and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the processing and output of the stream control transmission protocol (SCTP) status be stopped. This request stops the output of segment blocks of an OP:ST-SCTP request that have not yet been queued for printing and any further data collection and processing. This request does not stop the output of segment blocks already queued for printing at the time that this stop request is processed.

Format 1 will stop the output of an OP:ST-SCTP request where NEAREPT=a , DETAIL was requested.

Format 2 will stop the output of an OP:ST-SCTP request where ASSOC ALL was requested.

2. FORMAT

[1] STP:STATUS,SCTP,NEAREPT;

[2] STP:STATUS,SCTP,ASSOC;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted and the task is in the process of being stopped. The STP:ST-SCTP output message follows.

5. REFERENCES

Input Message(s):
OP:ST-SCTP

Output Message(s):
OP:ST-SCTP
STP:ST-SCTP

ID STP:STSFAC-B
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that maintenance actions be stopped on a digital networking unit - synchronous optical network (DNU-S) synchronous transport signal facility (STSFAC).

2. FORMAT

STP:[a,]STSFAC=b-c-d-e-f;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the STSFAC). Valid value(s):
 - RMV = Remove.
 - RST = Restore.
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Digital Networking Unit - SONET (DNU-S) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Data group (DG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = SONET Termination Equipment (STE) facility number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = Synchronous Transport Signal (STS) facility number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with the current status.
- PF = Printout follows. Followed by the STP:STSFAC output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):
RMV:STSFAC
RST:STSFAC

Output Message(s):
STP:STSFAC

Input Appendix(es):
APP:RANGES

MCC Display Page(s):
1511 (DNUS STS MAINTENANCE)

ID STP:ST-SIP-A
RELEASE 5E20(1) only
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests that the processing of a previously-entered OP:ST-SIP input message be halted.

2. FORMAT

[1]	STP:STATUS,SIP,ALL;
[2]	STP:STATUS,SIP,STATE={AVAIL UNAVAIL};
[3]	STP:STATUS,SIP,GSM=a;
[4]	STP:STATUS,SIP,PCRGRP=a-b;
[5]	STP:STATUS,SIP,BNID=c;

3. EXPLANATION OF MESSAGE

- a = Session initiation protocol (SIP) global switching module (GSM) number.
- b = SIP protocol handler (PH) processor group number on SIP GSM.
- c = Internet protocol (IP) bearer network identifier.

4. SYSTEM RESPONSE

- NG = No good.
- PF = Followed by the STP:ST-SIP output message.
- RL = Retry later. May also include:
 - OSSENDMSG FAILURE = The operating system could not send the request to the appropriate process.

5. REFERENCES

IM/OM References:
None.

Input Message(s):
OP:ST-SIP

Output Message(s):
OP:ST-SIP
STP:ST-SIP

Input Appendix(es):
APP:RANGES

RC/V View(s):

5.80	SIP-T GLOBAL SM
33.15	BEARER NETWORK DEFINITION
33.16	SIP-T PROCESSOR GROUP

ID STP:ST-SIP-B
RELEASE 5E21(1) and later
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests that the processing of a previously-entered OP:ST-SIP input message be halted.

2. FORMAT

[1]	STP:STATUS,SIP,ALL;
[2]	STP:STATUS,SIP,STATE={AVAIL UNAVAIL};
[3]	STP:STATUS,SIP,GSM=a;
[4]	STP:STATUS,SIP,BNID=b;

3. EXPLANATION OF MESSAGE

- a = Session initiation protocol (SIP) global switching module (GSM) number.
b = Internet protocol (IP) bearer network identifier.

4. SYSTEM RESPONSE

- NG = No good.
PF = Followed by the STP:ST-SIP output message.
RL = Retry later. May also include:
- OSSENDMSG FAILURE = The operating system could not send the request to the appropriate process.

5. REFERENCES

IM/OM References:
None.

Input Message(s):
OP:ST-SIP
OP:ST-SIPPATH
STP:ST-SIPPATH

Output Message(s):
OP:ST-SIP
OP:ST-SIPPATH
STP:ST-SIP
STP:ST-SIPPATH

Input Appendix(es):
APP:RANGES

RC/V View(s):

5.80 SIP-T GLOBAL SM
33.15 BEARER NETWORK DEFINITION

ID STP:ST-SIPPATH
RELEASE 5E21(1) and later
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests that the processing of a previously-entered OP:ST-SIPPATH input message be halted.

2. FORMAT

[1] STP:STATUS,SIPPATH,GSM=a[,ASSIGNED|,UNASSIGNED];

[2] STP:STATUS,SIPPATH,PCRGRP=a-b[,ASSIGNED|,UNASSIGNED];

[3] STP:STATUS,SIPPATH,PATHSET=c;

3. EXPLANATION OF MESSAGE

- a = Session initiation protocol (SIP) global switching module (GSM) number.
- b = SIP protocol handler (PH) processor group number on SIP GSM.
- c = User datagram protocol (UDP) path set name.

4. SYSTEM RESPONSE

- NG = No good.
- PF = Followed by the STP:ST-SIPPATH output message.
- RL = Retry later. May also include:
 - OSSENDMSG FAILURE = The operating system could not send the request to the appropriate process.

5. REFERENCES

Input Message(s):

OP:ST-SIP
OP:ST-SIPPATH
STP:ST-SIP

Output Message(s):

OP:ST-SIP
OP:ST-SIPPATH
STP:ST-SIP
STP:ST-SIPPATH

Input Appendix(es):

APP:RANGES

RC/V View(s):

5.80 SIP-T GLOBAL SM
33.15 BEARER NETWORK DEFINITION
33.16 SIP-T PROCESSOR GROUP
33.25 UDP PATH SET

ID STP:SW
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the current switch on the unit specified be stopped.

2. FORMAT

STP:SW,a;

3. EXPLANATION OF MESSAGE

- a = Unit to be stopped. Valid value(s):
AIUCOM=b-c-d
CMP=e-c
RRCLK=b-e¹-d
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = COMDAC number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Message switch side number.

4. SYSTEM RESPONSE

- IP = In progress. The stop has been initiated. A completion message will be printed for the original request if the stop completes successfully.

For CMP messages, if no completion message is printed, determine the current status of the original request using the OP:DMQ-CM-SM input message, and consider using the appropriate abort message as a final resort if the original request is still present.
- NG = No good. The request has been denied because of a conflict with current status.

For CMP messages, refer to the APP:CM-IM-REASON appendix in the Appendixes section of the Input Messages manual for a list of possible reasons for denying the request.
- PF = Printout follows. Followed by the corresponding output message.

5. REFERENCES

Input Message(s):
OP:DMQ-CM-SM
OP:OOS
ST:OPUMP-CMP
SW:AIUCOM
SW:CMF
SW:RRCLK

Output Message(s):
OP:DMQ-CM

ST:OPUMP-CMP
STP:AIUCOM
STP:CMP
STP:RRCLK

Input Appendix(es):

APP:CM-IM-REASON
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1320,y,x AIU SUMMARY

ID STP:TAC
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on the trunk and access (TAC) circuit at the specified location be stopped.

2. FORMAT

STP:[a,]TAC=b-c-d;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the TAC circuit).
Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Trunk unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied because of a conflict with current status.
- PF = Printout follows. Followed by the STP:TAC output message.

5. REFERENCES

Input Message(s):

DGN:TAC
EX:TAC
RMV:TAC
RST:TAC

Output Message(s):

STP:TAC

Input Appendix(es):

APP:RANGES

ID STP:TEN
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on the analog trunk specified by the trunk equipment number (TEN) be stopped.

2. FORMAT

STP:[a,]TEN=b-c-d-e-f;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the TEN). Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Trunk unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Channel board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = Channel number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied because of a conflict with current status.
- PF = Printout follows. Followed by the STP:TEN output message.

5. REFERENCES

Input Message(s):

DGN:TEN
EX:TEN
RMV:TEN
RST:TEN

Output Message(s):

STP:TEN

Input Appendix(es):

APP:RANGES

ID STP:TMSFP
RELEASE 5E16(2) and later
COMMAND GROUP CM
APPLICATION 5

1. PURPOSE

Stops a diagnostic, remove, or restore, on the time multiplexed switch (TMS) fabric pair (TMSFP) for the specified office network and timing complex (ONTC). This command also has the option of stopping any running or pending child requests of the parent TMSFP.

Stop is differentiated from abort by the action of the request. A stop action is not immediate, but waits for a graceful point of termination (for example, the end of a phase), and will attempt to leave the hardware in a sane state. An abort action is immediate and the state of the hardware is not guaranteed.

2. FORMAT

STP:[a,]TMSFP=b-c[,ALL];

3. EXPLANATION OF MESSAGE

- ALL = Stop the TSMFP request and/or any child (for example, QLPS, NLI, DLI) requests that may exist on the deferred maintenance queues (DMQ).
- a = Action to be stopped. The default is any action currently waiting or executing on the TMSFP. Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| RMV | = Remove. |
| RST | = Restore. |
- b = ONTC side that the TMSFP is on.
- c = TMS fabric pair number.

4. SYSTEM RESPONSE

- IP = In progress. The stop has been initiated. A completion message will be printed for the original request when the stop has completed.
- NG = No good. The request has been denied. The message syntax is valid, but the request could not be processed. Refer to the APP:CM-IM-REASON appendix in the Appendixes section of the Input Messages manual for a list of possible reasons for denying the request.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

ABT:TMSFP
DGN:TMSFP
OP:DMQ-CM-SM
RMV:TMSFP
RST:TMSFP

Output Message(s):

DGN:TMSFP
OP:DMQ-CM
RMV:TMSFP

RST:TMSFP

Input Appendix(es):
APP:CM-IM-REASON

ID STP:TMUX
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that maintenance actions be stopped on a digital networking unit - synchronous optical network (DNU-S) transmission multiplexer (TMUX).

2. FORMAT

STP:[a,]TMUX=b-c-d-e;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the TMUX). Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = DNU-S number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Data group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = TMUX number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with the current status.
- PF = Printout follows. Followed by the STP:TMUX output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

DGN:TMUX
RMV:TMUX
RST:TMUX

Output Message(s):

STP:TMUX

Input Appendix(es):

APP:RANGES

MCC Display Page(s):

1510 (DNUS STATUS)

ID STP:TRCRT
RELEASE 5E20(1) and later
COMMAND GROUP PCF
APPLICATION 5

1. PURPOSE

Stop currently running trace route (TRCRT).

2. FORMAT

STP:TRCRT,CHNG=a-b-c-d;

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number.
- b = Packet switching unit (PSU) number.
- c = PSU shelf number.
- d = Channel group number.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the STP:TRCRT output message.
- NG = No good. May also include:
 - NOT VALID FOR PH = The request has been denied. The message is valid but the source input is invalid.
 - PH OUT OF SERVICE = The request has been denied. The message is valid but the source peripheral handler is out of service (OOS).

5. REFERENCES

Input Message(s):
EXC:TRCRT

Output Message(s):
EXC:TRACEROUTE
STP:TRCRT

ID STP:TRFCEXCL
RELEASE 5E23 and later
COMMAND GROUP CG MEAS
APPLICATION 5

1. PURPOSE

Requests that the Exclusion List counter values dump activity be stopped.

2. FORMAT

STP:TRFCEXCL;

3. SYSTEM RESPONSE

NG = No good. The request has been denied. The message is valid but the request conflicts with current equipage or status, like no command is running or message cannot be forwarded at this time.

PF = Printout follows. The request has been accepted and the Exclusion List counter dump activity will be stopped immediately.

RL = Retry later. The request cannot be executed now because the system is busy.

4. REFERENCES

Output Message(s):
STP:TRFCEXCL

ID STP:TRIB
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that maintenance actions be stopped on a PCT (Peripheral Control and Timing) line and trunk unit link tributary (TRIB).

2. FORMAT

STP:[a,]TRIB=b-c-d-e;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the TRIB). Valid value(s):
 - RMV = Remove.
 - RST = Restore.
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = PLTU (PCT Line and Trunk Unit) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = PCT Facility Interface number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = PCT Tributary number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. Valid values are:
 - REASON FOR NG = The message form is valid, but the request conflicts with current status.
- PF = Printout follows. A STP TRIB output message follows.
- RL = Retry later. The request cannot be executed now due to unavailable system resource.

5. REFERENCES

Input Message(s):

RST:TRIB
RMV:TRIB
ABT:TRIB

Output Message(s):

STP:TRIB

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*

235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1430 (PLTU Status page)

1431 (PLTU Tributary Status Page)

ID STP:TST-DSL
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Stops pending or currently running test(s) of a integrated service digital network (ISDN) digital subscriber line (DSL). The test to be stopped was previously requested by the TST:DSL input message or from the trunk and line work station (TLWS). This message stops all tests on the DSL specified.

Unless otherwise stated: all references to integrated services line unit (ISLU), include all configurations of the ISLU and the integrated services line unit, version 2 (ISLU2). This includes both the remote integrated services line unit (RISLU) and remote integrated services line unit version 2 (RISLU2). All references to access interface unit (AIU), include the remote access interface unit (RAIU). Reference to line unit (LU) includes all supported ISDN compatible LUs.

For integrated digital carrier unit (IDCU) or digital network unit - synchronous optical network (SONET) (DNU-S) remote digital terminal (RDT) DSLs, a corrupt cyclic redundancy check (CRC) test cannot be stopped (see the TST:DSL input message).

In general, the DSL test to be stopped is identified using the office equipment number (OEN) or an associated subscriber directory number (DN).

Format 1 stops ALL test requests in the system.

Format 2 stops test requests on any LU DSL using the subscriber DN.

Format 3 stops test requests on ISLU DSLs using the line card equipment number (LCEN).

Format 4 stops test requests on ISLU2 DSLs using the line circuit equipment number (LCKEN).

Format 5 stops test requests on AIU DSLs using the AIU equipment number (AIUEN).

Format 6 stops test requests on IDCUs, DSLs using the IDCUs line equipment number (ILEN).

Format 7 stops test requests on DNU-S, DSLs using the integrated digital loop carrier (IDLC) networking line equipment number (INEN).

2. FORMAT

[1] STP:TST:DSL;
[2] STP:TST:DSL,DN=a;
[3] STP:TST:DSL,LCEN=b-c-d-i;
[4] STP:TST:DSL,LCKEN=b-c-d-h-j;
[5] STP:TST:DSL,AIUEN=b-c-h-j;
[6] STP:TST:DSL,ILEN=b-e-g-k;
[7] STP:TST:DSL,INEN=b-f-g-k;

3. EXPLANATION OF MESSAGE

- a = subscriber directory number.
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = ISDN line unit. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Line group controller number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

- e = IDCU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = DNU-S number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- g = Remote digital terminal number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- h = Line board/pack number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- i = Line card number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- j = Line circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- k = RDT channel unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- PF = Printout follows. A TST:DSL output message will follow when the test has been stopped.

5. REFERENCES

Input Message(s):
OP:CONV
TST:DSL

Output Message(s):
TST:DSL

Input Appendix(es):
APP:RANGES

ID STP:TST-ELS
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests that a currently-running (manually-requested) electronic loop segregation (ELS) test be stopped. The test to be stopped has been previously requested by the TST:LINE-ELS input message.

Only one manually-requested ELS test per switching module (SM) is allowed. Therefore, any test of the line identifier type specified (DN, MLHG, and so forth) running in the SM will be stopped.

Formats 1 through 6 are used to request that an ELS test related to an individual line of the type indicated be stopped. Format 7 is used to request that all ELS tests related to the specified SM be stopped.

2. FORMAT

[1] STP:TST,ELS,DN=a[-n];
[2] STP:TST,ELS,MLHG=b-c;
[3] STP:TST,ELS,LEN=d-e-f-g[-h[-i]];
[4] STP:TST,ELS,LCEN=d-k-l-m;
[5] STP:TST,ELS,AIUEN=d-s-t-u;
[6] STP:TST,ELS,LCKEN=d-o-p-q[-r];
[7] STP:TST,ELS,SM=d;

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

a = Directory number (DN) of the line being tested. The directory number will include NPA for non-unique NXX DN.

b = Hunt group number of the line being tested (or any line in the same SM as the line being tested). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

c = Member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

d = SM number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

e = Line unit number of the line being tested (or any line in the same SM as the line being tested). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

f = Grid number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

g = Grid pack number (LU1, LU2, or LU3). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

Note: If ALL is specified for variable 'g' then variable 'h' and 'i' should be omitted.

h = Switch number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

Note: If ALL is specified for variable 'h' then variable 'i' should be omitted.

- i = Level number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- Note: If ALL is specified for variable 'i' then the 4 lines on the specified switch will be stopped.
- k = Integrated services line unit (ISLU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- l = Line group controller number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- m = Line card number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- n = Member number of the MLHG or line time slot bridging (LTSB) line. For MLHG the DN specified should be the main DN for the group and the member number should indicate a specific member in the group. For LTSB a member number of 1 indicates the lead line and a member number of 2 indicates the associate line. If no member is specified, for 1-DN LTSB, the lead line will be stopped. If no member number is specified, for 2-DN LTSB, the line associated with the DN entered will be stopped.
- o = Integrated services line unit-2 (ISLU2) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- p = Line group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- q = Line board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- Note: If ALL is specified for variable 'q' then variable 'r' should be omitted.
- r = Line circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- Note: If ALL is specified for variable 'r' then all the lines on the line board will be stopped.
- s = Access interface unit (AIU) equipment number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- t = AIU pack number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- u = AIU circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message form is valid but the request conflicts with current status.
- PF = Printout follows. The request has been received. Followed by the STP:TST-ELS output message.

5. REFERENCES

Input Message(s):
TST:LINE-ELS

Output Message(s):
STP:TST-ELS

Input Appendix(es):
APP:RANGES

ID STP:TST-LEN
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests that actions on the line unit path exerciser (LUPEX) be stopped at the specified location.

2. FORMAT

STP:TST,LEN=a-b-c-d-e-f;

3. EXPLANATION OF MESSAGE

- a = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Line unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Grid number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Grid board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Grid board switch number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = Grid board switch level number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied because of a conflict with current status.
- PF = Printout follows. Followed by the STP:TST-LEN output message.
- RL = Retry later. The request has been denied due to unavailable system resources.

5. REFERENCES

Input Message(s):
ABT:TST-LEN
TST:LEN

Output Message(s):
ABT:TST-LEN
STP:TST-LEN
TST:LEN

Input Appendix(es):
APP:RANGES

Other Manual(s):
235-105-220 *Corrective Maintenance*

ID STP:TST-MP
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests that a modem pool (MP) test started by the TST:MP input message be stopped.

The test will be stopped immediately.

2. FORMAT

[1] STP:TST:MP,MPM=a-b;
[2] STP:TST:MP,MPG=a;
[3] STP:TST:MP,DN=c;

3. EXPLANATION OF MESSAGE

An MPG is a multi-line hunt group (MLHG). An MLHG can be identified by both its number and its directory number (DN). An MPM is identified by the group number and member number.

- a = Modem pool group (MPG) number involved in this test.
- b = Modem pool member (MPM) number of first MPM involved in this test.
- c = Directory number (DN) of multi-line hunt group (MLHG) for this test.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied.
- PF = Printout follows. The request has been accepted and the test will be stopped. Followed by the STP:TST-MP output message.
- RL = Retry later. The request cannot be accepted now because of system load.

5. REFERENCES

Input Message(s):
TST:MP

Output Message(s):
TST:MP

Other Manual(s):
235-105-220 *Corrective Maintenance*

ID STP:TST-PATH-A
RELEASE 5E15 only
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Stops pending or currently running test(s) of a digital loop-back (LPBK) test on inter-working gateway (IWG) or the end to end test call. The test to be stopped was previously requested by the TST:PATH input message.

Format 1 stops ALL test requests in the system or on any SM. The SM parameter can only be used to stop tests which had requested with the IWG parameter on the original test path request.

Format 2 stops test requests for IWG test call. If user specified any path equipment number (PEN) identifiers in test path request, then the same identifiers can be specified here to stop the test.

Format 3 stops test requests for bearer independent connection control (BICC) test call. If user specified any IWG, PEN or overload control 3 (OC3) identifiers in test path request, then the same identifiers can be specified to stop the test.

2. FORMAT

[1]	STP:TST,PATH[,SM=a];
[2]	STP:TST,PATH,IWG=a-b[,PEN=c[-d[-e]]];
[3]	STP:TST,PATH,{BG=h BGMN=h-i},OPDN=g[,IWG=a-b[,PEN=c[-d[-e]]][,OC3=f];

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Inter-working gateway (IWG) unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Relative link number (0-4). Each relative link (rlink) is a coaxial cable connected to a synchronous transport signal number 1 (STS-1e) card in the IWG. Each rlink is equivalent to an host facility on the IWG (also equivalent to IWGFAC#-1).
- d = Relative tributary number (0-27). Each rlink has 28 relative tributary numbers (rtrib). The rtrib is logical entity on the rlink, which is equivalent to a DS1 in the DNUS. Each rtrib is a physical device chip inside of IWG which capable of handling 24 channels.
- e = Digital signal 0 (DS0) value (0-24). DS0 is logical channels inside the rtrib. The total logical DS0 channels (total rtrib * total DS0) on a rlink is equivalent to the total time slots (TS) on 5E.
- f = Optical carrier 3 (OC3) link number (0-1).
- g = Out pulse digits.
- h = BICC group number.
- i = BICC group member or normalized circuit identification code (CIC).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the TST:PATH output message.

5. REFERENCES

Input Message(s):

OP:BICC
OP:JOBSTATUS
TST:PATH

Output Message(s):

OP:BICC
OP:JOBSTATUS
TST:PATH

Input Appendix(es):

APP:RANGES

ID STP:TST-PATH-B
RELEASE 5E16(1) only
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Stops pending or currently running test(s) of a digital loop-back (LPBK) test on inter-working gateway (IWG) or the end to end test call. The test to be stopped was previously requested by the TST:PATH input message.

Format 1 stops ALL test requests in the system or on any SM. The SM parameter can only be used to stop tests which had requested with the IWG parameter on the original test path request.

Format 2 stops test requests for IWG test call. If user specified any path equipment number (PEN) identifiers in test path request, then the same identifiers can be specified here to stop the test.

Format 3 stops test requests for bearer independent connection control (BICC) test call. If user specified any IWG, PEN or overload control 3 (OC3) identifiers in test path request, then the same identifiers can be specified to stop the test.

2. FORMAT

[1] STP:TST,PATH[,SM=a];
[2] STP:TST,PATH,IWG=a-b[,PEN=c[-d[-e]]];
[3] STP:TST,PATH,{BG=h|BGMN=h-i},OPDN=g[,IWG=a-b][,PEN=c[-d[-e]]][,OC3=f];

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Inter-working gateway (IWG) unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Relative link number (0-4). Each relative link (rlink) is a coaxial cable connected to a synchronous transport signal number 1 (STS-1e) card in the IWG. Each rlink is equivalent to an Host Facility on the IWG (also equivalent to IWGFAC#-1).
- d = Relative tributary number (0-27). Each rlink has 28 relative tributary numbers (rtrib). The rtrib is logical entity on the rlink, which is equivalent to a DS1 in the DNUS. Each rtrib is a physical device chip inside of IWG which capable of handling 24 channels.
- e = Digital signal 0 (DS0) value (0-24). DS0 is logical channels inside the rtrib. The total logical DS0 channels (total rtrib * total DS0) on a rlink is equivalent to the total time slots (TS) on 5E.
- f = Overload control 3 (OC3) link number (0-1).
- g = Out pulse digits.
- h = BICC group number.
- i = BICC group member or normalized circuit identification code (CIC).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the TST:PATH output message.

5. REFERENCES

Input Message(s):

OP:BICC
OP:JOBSTATUS
TST:PATH

Output Message(s):

OP:BICC
OP:JOBSTATUS
TST:PATH

Input Appendix(es):

APP:RANGES

ID STP:TST-PATH-C
RELEASE 5E16(2) and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Stops currently executing or pending test(s) initiated by a previously received TST:PATH input message. For descriptions of the various TST:PATH test types, see the TST:PATH input message manual page.

Format 1 stops ALL test requests in the system.

Format 2 stops the test request identified by the specified REQNO. The REQNO is assigned to the test request when the input message acknowledgment ("PF") is provided.

Format 3 stops all test requests which were requested for the specified switching module (SM) using either the optical interface unit (OIU) or the optical interface unit protection group (OIUPG) parameter in the original test request.

Format 4 stops test requests for packet test calls looped back internally in the packet OIU protection group.

Format 5 stops test requests for packet test calls connecting over the packet network to a test line in the far office.

Format 6 stops test requests for ATM packet pipe trunk test calls. The ability to stop all tests running on a specific ATM link is also provided.

Format 7 stops test requests for signaling ATM adaption layer (SAAL) high speed link (HSL) test calls.

If an identifier is specified in a STP:TST-PATH input message, generally that same identifier must have also been specified in the original TST:PATH request for it to be stopped by a stop request. By omitting an optional identifier in the STP:TST-PATH input message, no consideration is given to the use of that identifier in the original TST:PATH request in deciding whether or not to stop a running test.

2. FORMAT

[1]	STP:TST,PATH;
[2]	STP:TST,PATH:REQNO=a[&&b];
[3]	STP:TST,PATH:SM=c;
[4]	STP:TST,PATH:[DELAY,]OIUPG=c-d-e,PCTTS=f-g;
[5]	STP:TST,PATH:[{DELAY OG105},]{PKTG=h PKTGMN=h-i} [,OPDN=j][,{OIU=c-d OIUPG=c-d-e}];
[6]	STP:TST,PATH:[{ATMENH ATMLBK},] {ATMPP=c-k-l-{m ALL} TKGMN=n-o[&&p] TG=n}, [,RPT=q][,DUR=r][,CAMP=s];
[7]	STP:TST,PATH:[ATMLBK,]PSUEN=c-k-t-u-v[,RPT=q][,CAMP=s];

3. EXPLANATION OF MESSAGE

- a = Request number to be stopped, or the lower limit of a range of request numbers to be stopped (0-254).
- b = Upper limit of a range of request numbers to be stopped (0-254).
- c = SM number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = OIU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = OIUPG number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = Peripheral control and timing (PCT) link number, relative to the OIU (0-2).
- g = PCT time slot (PCTTS) number (0-767).
- h = Packet group (PKTG) number (7000-7999).
- i = Packet group member number (PKTGMN) (0-65535).
- j = Outpulsed directory number (OPDN) of the appropriate test line type at far-end office.
- k = Packet switching unit (PSU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- l = ATM link unit number (1-10).
- m = Virtual connection identifier (VCID) number (0-1023). VCID is a virtual connection identifier that identifies a PVC on a given PSU ATM link. If "ALL" is specified instead of a specific VCID number, all test requests which are currently running or pending on each VCID of the matching SM-PSU-LINKs specified in TST:PATH input message will be stopped.
- n = Trunk group number.
- o = Trunk member number or the lower end of a range of trunk member numbers.
- p = Upper end of a range of trunk member numbers.
- q = Number of times to repeat (RPT) the test being run (1-32).
- r = Duration (DUR) of the test to be run, in seconds.
- s = Camp-on time for the test being run (10-3600).
- t = PSU shelf number (0-5).
- u = PSU channel number (0-15).
- v = PSU channel member number (0-127).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by one or more TST:PATH output messages for stopped tests, or a STP:TST-PATH output message indicating the outcome of the request.

5. REFERENCES

Input Message(s):
OP:JOBSTATUS
TST:PATH

Output Message(s):
OP:JOBSTATUS

TST:PATH
STP:TST-PATH

Input Appendix(es):
APP:RANGES

ID STP:TST-TRK
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests that the testing of trunks initiated by the TST:TRK input message be stopped. This message is entered to stop the tests on the remaining members of the trunk group and/or range specified in the TST:TRK input message.

2. FORMAT

STP:TST,TRK;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NG = No good. The request has been denied.

PF = Printout follows. The request has been accepted and the test has been stopped.
Followed by an STP:TST-TRUNK output message.

RL = Retry later. The request cannot be executed now because of system load. Repeat request later.

5. REFERENCES

Input Message(s):
TST:TRK

Output Message(s):
STP:TST-TRUNK

ID STP:TST-WLINE
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION AEWNC

1. PURPOSE

Requests that the test of continuity of analog lines terminated on the W-card of WNC be stopped.

2. FORMAT

STP:TST:WLINE

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NA = NO TEST FOUND.

PF = Printout follows. The request has been accepted and is followed by an STP:TST:WLINE output message.

5. REFERENCES

Input Message(s):
TST:WLINE

Output Message(s):
TST:WLINE

Other Manual(s):

230-701-100 **Air Extension**SM *Reference Guide*
235-701-120 **Air Extension** *User Guide*

ID STP:TTFCOM
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on the transmission test facility common (TTFCOM) board at the specified location be stopped.

2. FORMAT

STP:[a,]TTFCOM=b-c-d-e;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the TTFCOM board).
Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Global digital service unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied because of a conflict with current status.
- PF = Printout follows. Followed by the STP:TTFCOM output message.

5. REFERENCES

Input Message(s):
DGN:TTFCOM
EX:TTFCOM
RMV:TTFCOM
RST:TTFCOM

Output Message(s):
STP:TTFCOM

Input Appendix(es):
APP:RANGES

ID STP:TUCHBD
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on the trunk unit channel board (TUCHBD) at the specified location be stopped.

2. FORMAT

STP:[a,]TUCHBD=b-c-d-e;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the TUCHBD). Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Trunk unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Channel board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied because of a conflict with current status.
- PF = Printout follows. Followed by the STP:TUCHBD output message.

5. REFERENCES

Input Message(s):
DGN:TUCHBD
RMV:TUCHBD
RST:TUCHBD

Output Message(s):
STP:TUCHBD

Input Appendix(es):
APP:RANGES

ID STP:UCONF
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on the universal conference (UCONF) circuit at the specified location be stopped.

2. FORMAT

STP:[a,]UCONF=b-c-d-e;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the UCONF circuit).
Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Global digital service unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Digital service circuit unit board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied because of a conflict with current status.
- PF = Printout follows. Followed by the STP:UCONF output message.

5. REFERENCES

Input Message(s):
DGN:UCONF
EX:UCONF
RMV:UCONF
RST:UCONF

Output Message(s):
STP:UCONF

Input Appendix(es):
APP:RANGES

ID STP:UMBIL
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on a host umbilical (UMBIL) circuit be stopped. This message is applicable for host umbilicals terminating on a digital line and trunk unit (DLTU) or on a digital networking unit - synchronous optical network (DNU-S). This is an alternative way to address a remove of a host facility (HFAC) or a DS1 facility.

2. FORMAT

STP:[a,]UMBIL=b-c-d;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (the default action is the action currently executing on the UMBIL). Valid values are:
 - RMV = Remove.
 - RST = Restore.
- b = Host Switch Module (HSM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Remote Switch Module (RSM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = UMBIL number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message is valid but the request conflicts with current status.
- PF = Printout follows. Followed by the STP:UMBIL output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

RMV:UMBIL
RST:UMBIL
ABT:UMBIL

Output Message(s):

STP:UMBIL

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1740,xxx,yyy (HOST UMBILICALS (1 - 10))

1741,xxx,yyy (HOST UMBILICALS (11 - 20))

ID STP:UTD
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on the universal tone decoder (UTD) board at the specified location be stopped.

2. FORMAT

STP:[a,]UTD=b-c-d-e;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the UTD). Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Local digital service unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Digital service unit board position number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied because of a conflict with current status.
- PF = Printout follows. Followed by the STP:UTD output message.

5. REFERENCES

Input Message(s):

DGN:UTD
EX:UTD
RMV:UTD
RST:UTD

Output Message(s):

STP:UTD

Input Appendix(es):

APP:RANGES

ID STP:UTG
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that actions on the universal tone generator (UTG) board at the specified location be stopped.

2. FORMAT

STP:[a,]UTG=b-c-d-e;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the UTG board).
Valid value(s):
- | | |
|-----|-------------|
| DGN | = Diagnose. |
| EX | = Exercise. |
| RMV | = Remove. |
| RST | = Restore. |
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Local digital service unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Digital service circuit unit board position number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied because of a conflict with current status.
- PF = Printout follows. Followed by the STP:UTG output message.

5. REFERENCES

Input Message(s):

DGN:UTG
EX:UTG
RMV:UTG
RST:UTG

Output Message(s):

STP:UTG

Input Appendix(es):

APP:RANGES

ID STP:VT15
RELEASE 5E16(1) and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the currently executing maintenance action on a virtual tributary - level 1.5 (VT15) be stopped.

2. FORMAT

STP:[a,]VT15=b-c-d-e-f-g-h;

3. EXPLANATION OF MESSAGE

- a = Action being stopped (default is the currently executing action). Valid value(s):
 - RMV = Remove.
 - RST = Restore.
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Optical interface unit (OIU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Protection group (PG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Optical carrier - level 3 (OC3) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = Synchronous transport signal - level 1 (STS1) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- g = VT15 group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- h = VT15 member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with current status.
- PF = Printout follows. Followed by the STP:VT15 output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):
ABT:VT15
RMV:VT15
RST:VT15

Output Message(s):
STP:VT15

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1492 OIU STS1 STATUS

ID STP:VT1FAC-B
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that maintenance actions be stopped on a digital networking unit - synchronous optical network (DNU-S) virtual tributary level 1 facility (VT1FAC).

2. FORMAT

STP:[a,]VT1FAC=b-c-d-e-f-g-h;

3. EXPLANATION OF MESSAGE

- a = Action to be stopped (default is the action currently executing on the VT1FAC). Valid value(s):
 - RMV = Remove.
 - RST = Restore.
- b = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Digital Networking Unit - SONET (DNU-S) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Data group (DG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = SONET Termination Equipment (STE) facility number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = Synchronous Transport Signal (STS) facility number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- g = Virtual tributary group (VTG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- h = Virtual tributary member (VTM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with the current status.
- PF = Printout follows. Followed by the STP:VT1FAC output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):
RMV:VT1FAC
RST:VT1FAC

Output Message(s):
STP:VT1FAC

Input Appendix(es):
APP:RANGES

MCC Display Page(s):
1511 (DNUS STS MAINTENANCE)

ID STP:WSTST
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests to stop the action of a test at the trunk and line work station (TLWS) test position (TP) started by a digital, metallic, supervision, or transmission test request.

2. FORMAT

STP:WSTST,TP=a;

3. EXPLANATION OF MESSAGE

a = TLWS TP number.

4. SYSTEM RESPONSE

NG = No good. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

OK = Good. The test was stopped.

5. REFERENCES

Input Message(s):

RLS:WSTST
TST:WSDGTL
TST:WSMEAS
TST:WSMET
TST:WSSEND
TST:WSSUPV

Output Appendix(es):

APP:TLWS

Other Manual(s):

235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID ST:RODDGRW
RELEASE 5E15 and later
COMMAND GROUP ODD
APPLICATION 5

1. PURPOSE

Allocates physical memory to the redundant portion of office dependent data (RODD) for the purpose of growth, provided that there is physical memory available.

Warning: *If an ST:RODDGRW input message is entered before the previous one has completed, the second one will not be honored. Only one growth at a time is possible. Check the available switching module (SM) memory before inputting this message, and check diagnostics.*

2. FORMAT

ST:RODDGRW:KBYTES=a;

3. EXPLANATION OF MESSAGE

a = The amount of growth space to be added, in kilobytes. This number must be a multiple of 16 (such as, 16, 32, 48, ... 2048) not to exceed 2048; otherwise the growth will be aborted. Growing and ODD greater than 2048 kilobytes may be done by repeating the ST:RODDGRW input message.

4. SYSTEM RESPONSE

NG = No good. Input request not valid.
PF = Printout follows. Request accepted. Followed by an ST:RODDGRW output message.
RL = Retry later. Request cannot be executed now.

5. REFERENCES

Output Message(s):
ST:RODDGRW

Other Manual(s):
235-105-220 *Corrective Maintenance*

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID ST:UODDGRW
RELEASE 5E16(2) and later
COMMAND GROUP ODD
APPLICATION 5

1. PURPOSE

Requests an increase in the size of physical memory allocated to the unprotected (dynamic) office-dependent data (ODD).

Warning: *The size increase of the unprotected ODD is at the expense of the non-redundant ODD.*

No reversal of this growth is possible. Only one ODD growth (unprotected - ST:UODDGRW, non-redundant - ST:NRODDGRW, or redundant - ST:RODDGRW) or bitmap salvage technique (BST) - ST:ODDBST at a time is possible. If an ST:UODDGRW input message is entered before the previous unprotected, non-redundant, redundant, or BST has completed, it will cause service affecting conditions to occur on the processor being grown.

2. FORMAT

ST:UODDGRW,{SM=a|CMP=a},KBYTES=b;

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) or communications module processor (CMP) number.
- b = Amount of growth space to be added, in kilobytes. The number input must be a multiple of 16 (for example 16, 32, 48, ... 2048); otherwise, the growth will be aborted. Growing and ODD greater than 2048 kilobytes may be done by repeating the ST:UODDGRW input message. Since unprotected ODD growth acquires space from the non-redundant ODD, the amount of growth space specified must leave available space in the non-redundant ODD for recent changes. The percent of non-redundant ODD space required to be free after an unprotected ODD growth is given by the SM and CMP global parameter DBmavsodd. The OP:ODD input message generates a report on ODD space utilization.

4. SYSTEM RESPONSE

- NG = No good. The message syntax is valid, but the request conflicts with system or equipment status. May also include:
 - SM NOT OPERATIONAL OR IN SPECIAL GROWTH MODE = The message syntax is valid, but the request conflicts with system or equipment status. The SM specified must be operational or in the special growth mode.
 - UODD GROWTH SIZE NOT A MULTIPLE OF 16 = The message syntax is valid, but the request conflicts with system or equipment status. The input number of kilobytes must be a multiple of 16.
 - MATE CMP MUST BE OOS BEFORE EXECUTING UODD GROWTH = The mate CMP must be out of service (OOS) before executing the CMP unprotected ODD (UODD) growth command.
- PF = Printout follows. Followed by the ST:UODDGRW output message.
- RL = Retry later. Request cannot be executed now. May also include:
 - ANOTHER ODD GROWTH OR ODDBST EXECUTING = Retry later. Request cannot be executed now. Retry after the current ODD growth or ODDBST completes.
 - ODD BACKUP CURRENTLY IN PROGRESS = Retry later. Request cannot be executed now. Retry after the ODD backup process finishes.

- RECOVERING FROM PREVIOUS ODDBST OR ODD GROWTH = Retry later. Request cannot be executed now because a recovery of a previous ODD growth or ODDBST is currently in progress.

5. REFERENCES

Input Message(s):

ST:RODDGRW

ST:NRODDGRW

ST:ODDBST

OP:ODD-AM-SM

Output Message(s):

ST:UODDGRW

Other Manual(s):

235-105-220 *Corrective Maintenance*

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID ST:UODDGRW-SM
RELEASE 5E15 - 5E16(1)
COMMAND GROUP ODD
APPLICATION 5

1. PURPOSE

Requests an increase in the size of physical memory allocated to the unprotected (dynamic) office-dependent data (ODD).

Warning: *The size increase of the unprotected ODD is at the expense of the non-redundant ODD.*

No reversal of this growth is possible. Only one SM ODD growth (unprotected - ST:UODDGRW, non-redundant - ST:NRODDGRW, or redundant - ST:RODDGRW) or bitmap salvage technique (BST) - ST:ODDBST at a time is possible. If an ST:UODDGRW input message is entered before the previous unprotected, non-redundant, redundant, or BST has completed, it will cause service affecting conditions to occur on the processor being grown.

2. FORMAT

ST:UODDGRW, SM=a: KBYTES=b;

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number.
- b = Amount of growth space to be added, in kilobytes. The number input must be a multiple of 16 (for example 16, 32, 48, ... 2048); otherwise the growth will be aborted. Growing and ODD greater than 2048 kilobytes may be done by repeating the ST:UODDGRW input message. Since unprotected ODD growth acquires space from the non-redundant ODD, the amount of growth space specified must leave available space in the non-redundant ODD for recent changes. The percent of non-redundant ODD space required to be free after an unprotected ODD growth is given by the SM global parameter DBmavsodd. The OP:ODD input message generates a report on ODD space utilization.

4. SYSTEM RESPONSE

- NG = No good. The message syntax is valid, but the request conflicts with system or equipment status. Valid value(s):
 - SM NOT OPERATIONAL OR IN SPECIAL GROWTH MODE = The message syntax is valid, but the request conflicts with system or equipment status. The SM specified must be operational or in the special growth mode.
 - UODD GROWTH SIZE NOT A MULTIPLE OF 16 = The message syntax is valid, but the request conflicts with system or equipment status. The input number of kilobytes must be a multiple of 16.
- PF = Printout follows. Followed by an ST:UODDGRW output message.
- RL = Retry later. Request cannot be executed now. Valid value(s):
 - ANOTHER ODD GROWTH OR ODDBST EXECUTING = Retry later. Request cannot be executed now. Retry after the current ODD growth or ODDBST completes.
 - ODD BACKUP CURRENTLY IN PROGRESS = Retry later. Request cannot be executed now. Retry after the ODD backup process finishes.
 - RECOVERING FROM PREVIOUS ODDBST OR ODD GROWTH = Retry later. Request cannot be executed now because a recovery of a previous ODD growth or ODDBST is currently in progress.

5. REFERENCES

Input Message(s):

ST:RODDGRW

ST:NRODDGRW

ST:ODDBST

OP:ODD-AM-SM

Output Message(s):

ST:UODDGRW

Other Manual(s):

235-105-220 *Corrective Maintenance*

ID ST:UPDMHGTRKG
RELEASE 5E15 and later
COMMAND GROUP ODD
APPLICATION 5

1. PURPOSE

Requests an update of the "cluster" attribute in all tuples of the RLRT_MHG and RLRT_TRKG office dependent data (ODD) relations for a particular multi-module remote switching module (MMRSM) site and updates the RLRTANNGRP relation for affected announcement trunk groups associated with the site.

Note: This input message is usually used in conjunction with the remote switching module (RSM) association/disassociation procedure which is part of MMRSM growth/degrowth. This function can take several minutes to complete.

2. FORMAT

ST:UPDMHGTRKG,SITE=a;

3. EXPLANATION OF MESSAGE

a = MMRSM site number (1-174) for which the office data is updated.

4. SYSTEM RESPONSE

NG = No good. The input request is not valid.

PF = Printout follows. A ST:UPDMHGTRKG output message follows in response to the request.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):

ST:UPDMHGTRKG

Other Manual(s):

235-105-230 *Multimodule RSM Growth*

ID SW:AIUCOM
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active major/active minor states of the access interface unit common data and control controller be switched (interchanged).

Note: Both controllers must be in service before this message will be honored.

2. FORMAT

SW:AIUCOM=a-b;

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number.
- b = AIU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with the current status.
- PF = Printout follows. Followed by the SW:AIUCOM output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:AIUCOM

Input Appendix(es):
APP:RANGES

MCC Display Page(s):
1320,y,x (AIU SUMMARY)

ID SW:ASM
RELEASE 5E15 and later
COMMAND GROUP ASM
APPLICATION 5

1. PURPOSE

Requests that the active/standby state of the administrative service module (ASM) be switched (interchanged) when high availability ASM (HA-ASM) exists in an office.

On a conditional request, the input request is only performed if the ASMs are in an active/standby configuration and no conflicting operations are in progress.

For the unconditional request, the input request is performed if the ASMs are in an active/standby configuration. If a conflicting operation is in progress, the UCL option will over-ride the operation.

The command is rejected if the mate ASM is in an out of service state.

The SW ASM output command will indicate if the request was started or blocked. Once the switch over is started, ASM state changes are reported using the REPT:ASM input message

2. FORMAT

SW:ASM[,UCL];

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NG = No good.

RL = Retry later.

PF = Printout follows. The command has been accepted. Followed by the SW:ASM output message indicating if the request can be started.

5. REFERENCES

Output Message(s):

REPT:ASM

SW:ASM

Other Manual(s):

235-200-145 *ASM User's Guide*

ID SW:CLOCK
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that the mate network clock node be switched to the master network clock node.

If the STATUS data field is not used, the mate clock node will become the master clock node and will broadcast the change to all member nodes in the CCS network. This message can only be entered at the mate clock node. The status of the clock information can be verified by including the STATUS data field. The status information is the master/mate clock node point codes or a message if the data is not assigned. If the point codes are displayed and the master has been determined, it will be determined with an asterisk (*).

2. FORMAT

SW:CLOCK[:STATUS];

3. EXPLANATION OF MESSAGE

STATUS = Verify the status of clock information. The status information is the master/mate clock node point codes or a message if the data is not assigned. If the point codes are displayed and the master has been determined, it will be marked with an asterisk (*).

Note: Default will switch the network clock node to the master network clock node.

4. SYSTEM RESPONSE

MASTER/MATE POINT CODES: UNASSIGNED = If the master and mate clock nodes are not assigned, the following message will be output.

NETWORK CLOCK DATA DOES NOT EXIST = If the STATUS data field is not used, certain checks of the current status of the office are made. For the switch to be performed, neither the master nor mate point codes can equal "000000000". This condition would occur if the "clkdata" disk file does not exist or if it contains all zeroes for the point codes. If this condition is detected, the following message will be output.

CLOCK MESSAGES ARE NOT ENABLED = Additionally, for the switch to be performed, IMS messages must be allowed to be transmitted. They are not allowed if the office has not successfully completed an initialization of level 1 or higher. If this condition is detected, the following message will be output.

CURRENT NODE MUST BE THE MATE CLOCK = The last remaining check to be made is that the office is the mate clock. If the office is not currently the mate clock, the following message will be output.

5. REFERENCES

Output Message(s):

SW:CLOCK-COMPL

Other Manual(s):

235-190-120 *Common Channel Signaling Service Features*

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID SW:CMP
RELEASE 5E15 and later
COMMAND GROUP CM
APPLICATION 5

1. PURPOSE

Requests activation of the standby of the communication module processor (CMP). The CMPs must be active standby to allow a switch.

This input message also stimulates the communication link normalization program (CLNORM) to analyze the resulting CMP and foundation peripheral controller (FPC) configuration and, under certain circumstances, modify it.

CLNORM modifies the configuration under the following circumstances. When message switch (MSGs) sides have an unequal number of communication links, CLNORM will attempt to keep the active CMP and active FPC configured to the MSGS side that carries the largest number of communication links. This is to reduce an administrative module (AM) performance degradation condition known as "message hairpinning". To ensure that CLNORM does not switch CMPs and FPCs back to the previous configuration, all MSGS hardware should be in service and communication links normalized before this input message is entered.

When MSGS sides have an equal number of communication links (the normal case), CLNORM will attempt to keep the active CMP and the active FPC on opposite MSGS sides. CLNORM keeps these units on separate sides so as to more evenly distribute message traffic between MSGS sides. In this case, issuing the SW:CMP input message will internally produce a switch of the FPC. Likewise, a switch of the FPC will indirectly produce a switch of the CMP.

During periods of repair or installation, this activity by CLNORM is inhibited by entering the INH:CLNORM,FPC and/or the INH:CLNORM,CMP input message.

Warning: *The use of this input message with the unconditional option could result in the loss of transient calls. Use with extreme caution!*

2. FORMAT

SW:CMP=a-b[,UCL];

3. EXPLANATION OF MESSAGE

UCL = Switch the CMP unconditionally without performing a memory update.

a = Message switch side number.

b = CMP number.

4. SYSTEM RESPONSE

NG = No good. The request has been denied. The message syntax was valid, but the request could not be processed. Refer to the APP:CM-IM-REASON appendix in the Appendixes section of the Input Messages manual for a list of possible reasons for denying the request.

PF = Printout follows. The output message SW:CMP follows.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

INH:CLNORM

OP:CFGSTAT

RST:CMP

STP:CMP

Input Appendix(es):

APP:CM-IM-REASON

Output Message(s):

OP:CFGSTAT-CM

REPT:CMP-SW

RST:CMP

SW:CMP

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*

235-105-220 *Corrective Maintenance*

235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1241, 1251 (MSGS COMMUNITIES)

1240, 1250 (MSGS STATUS for CM3)

ID SW:CU
RELEASE 5E15 and later
COMMAND GROUP AM
APPLICATION 5,3B

1. PURPOSE

Requests a graceful switch of the active/standby status of the administrative module (AM) control units (CUs). The CU switch is attempted only if the offline CU major status is standby.

2. FORMAT

SW:CU;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NG = No good. The CU's were not switched because the offline CU is not in an acceptable state.

PF = Printout follows. Followed by a SW:CU output message.

5. REFERENCES

Input Message(s):
OP:OOS

Output Message(s):
OP:OOS
SW:CU

MCC Display Page(s):
(COMMON PROCESSOR DISPLAY)

ID SW:DLN
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5,CNI

1. PURPOSE

Switches the active standby status of the direct link nodes (DLN) on the common network interface (CNI) ring. The input message is accepted only if the non-active DLN reflects a standby condition.

2. FORMAT

SW:DLN;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NG = No good. May also include:

- MATE OUT OF SERVICE = The switch has not been accepted because the DLN's do not reflect acceptable states.
- RING IS IN SILENCE STATE = Communication both to and from the node is not available at this time.

PF = Printout follows. The request has been accepted. Output message SW:DLN will follow.

5. REFERENCES

Output Message(s):
SW:DLN

ID SW:DNUSCC
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active/standby states of a digital networking unit - synchronous optical network (DNU-S) common controller (DNUSCC) be switched (interchanged).

Note: Both controllers must be in service before this message will be honored.

2. FORMAT

SW:DNUSCC=a-b;

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = DNU-S number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with the current status.
- PF = Printout follows. A SW:DNUSCC output message follows.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:DNUSCC

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):
1510 (DNUS STATUS)

ID SW:DNUSCD
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active/standby states of a digital networking unit - synchronous optical network (DNU-S) common data (DNUSCD) be switched (interchanged).

2. FORMAT

SW:DNUSCD=a-b-c[,CONTROL];

3. EXPLANATION OF MESSAGE

CONTROL = This option applies only to the DNUSCDs on data group 0 where both DNUSCDs are OOS. If CONTROL is specified, the control link to the active DNUSCD is switched to the other DNUSCD.

a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

b = DNU-S number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

c = Data group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. The message form is valid, but the request conflicts with the current status.

PF = Printout follows. A SW:DNUSCD output message follows.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:DNUSCD

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):
1510 (DNUS STATUS)

ID SW:DNUSEOC
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active and standby states of remote terminal (RT) embedded operations channel (EOC) circuits be switched (interchanged). This message is applicable for TR303 RTs (that is, AT&T Series 5 RTs running Feature Package 303G) terminating on a digital networking unit - synchronous optical network (DNU-S).

2. FORMAT

SW:DNUSEOC=a-b-c[,UCL];

3. EXPLANATION OF MESSAGE

UCL = Unconditionally execute the switch. Will perform a forced switch when one EOC is active and the other is standby or out of service as long as the EOC being switched to is available.

a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

b = DNU-S number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

c = RT number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. The request has been denied. The message is valid but the request conflicts with current status.

PF = Printout follows. An SW:DNUSEOC output message will follow.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:DNUSEOC

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):
1660,xxxx (TR303 REMOTE TERMINAL)

ID SW:DNUSTMC
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active and standby states of remote terminal (RT) timeslot management channel (TMC) circuits be switched (interchanged). This message is applicable for TR303 RTs (that is, Series 5 RTs running Feature Package 303G) terminating on a digital networking unit - synchronous optical network (DNU-S).

2. FORMAT

SW:DNUSTMC=a-b-c[,UCL];

3. EXPLANATION OF MESSAGE

UCL = Unconditionally execute the switch. Will perform a forced switch when one TMC is active and other is standby or out of service as long as the TMC being switched to is available.

a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

b = DNU-S number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

c = RT number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. The request has been denied. The message is valid but the request conflicts with current status.

PF = Printout follows. Followed by the SW:DNUSTMC output message.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:DNUSTMC

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):
1660,xxxx (TR303 REMOTE TERMINAL)

ID SW:FPC
RELEASE 5E15 and later
COMMAND GROUP CM
APPLICATION 5

1. PURPOSE

Requests a switch of the foundation peripheral controller (FPC) unit. One FPC should be active and the other should be standby to allow a switch.

This input message also stimulates the communication link normalization program (CLNORM) to analyze the resulting FPC and communication module processor (CMP) configuration and, under certain circumstances, modify it. CLNORM will modify the configuration in the following manner. When message switch (MSGS) sides have an unequal number of communication links, CLNORM will attempt to keep the active FPC and active CMP configured to the MSGS side that carries the largest number of communication links. This is to reduce an administrative module (AM) performance degradation condition known as message hairpinning. To ensure that CLNORM does not switch FPCs and CMPs back to the previous configuration, all MSGS hardware should be in service and communication links normalized before this input message is entered. When MSGS sides have an equal number of communication links (the normal case), CLNORM will attempt to keep the active FPC and the active CMP on opposite MSGS sides. In this case, an FPC switch will also indirectly produce a switch of the CMP. Likewise, a switch of the CMP will indirectly produce a switch of the FPC. CLNORM keeps these units on separate sides so as to more evenly distribute message traffic between MSGS sides. During periods of repair or installation, this activity by CLNORM can be inhibited by entering the INH:CLNORM,FPC and/or the INH:CLNORM,CMP input message.

2. FORMAT

SW:FPC;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NG = No good. The request has been denied. The message syntax is valid, but the request could not be processed. Refer to the APP:CM-IM-REASON appendix in the Appendixes section of this manual for a list of possible reasons for denying the request.

PF = Printout follows. The request was accepted. An SW:FPC output message follows.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):
 ALW:CLNORM
 INH:CLNORM
 OP:CFGSTAT
 RST:FPC

Output Message(s):
 OP:CFGSTAT-CM
 RST:FPC
 SW:FPC

Input Appendix(es):

APP:CM-IM-REASON

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*

235-105-220 *Corrective Maintenance*

235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1241, 1251 (MSGs COMMUNITIES)

1240, 1250 (MSGs STATUS for CM3)

ID SW:GDXCON
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that a gated diode crosspoint controller (GDXCON) be switched from the standby to the active state.

To allow a switch, the configuration of the GDXCONs must be active-standby; the message does not work for other configurations (such as unavailable and out-of-service).

2. FORMAT

SW:GDXCON=a-b;

3. EXPLANATION OF MESSAGE

- a = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Line unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by SW:GDXCON output message.

5. REFERENCES

Output Message(s):
SW:GDXCON

Input Appendix(es):
APP:RANGES

ID SW:IDCUEOC
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active and standby states of remote terminal (RT) embedded operations channel (EOC) circuits be switched (interchanged). This message is applicable for TR303 RTs (that is, AT&T Series 5 RTs running Feature Package 303G) terminating on an integrated digital carrier unit (IDCU).

2. FORMAT

SW:IDCUEOC=a-b-c[,UCL];

3. EXPLANATION OF MESSAGE

UCL = Unconditionally execute the switch. Will perform a forced switch when one EOC is active and the other is standby or out of service as long as the EOC being switched to is available.

a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

b = IDCU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

c = RT number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. The request has been denied. The message is valid but the request conflicts with current status.

PF = Printout follows. An SW:IDCUEOC output message will follow.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:IDCUEOC

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):
1880,x,yy (IDCU REMOTE TERMINAL)

ID SW:IDCU
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active and standby integrated digital carrier unit (IDCU) service group circuits be switched (interchanged).

2. FORMAT

SW:IDCU=a-b;

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number.
- b = IDCU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message is valid but the request conflicts with current status.
- PF = Printout follows. An SW:IDCU output message will follow.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:IDCU

Output Appendix(es):
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):
186x (IDCU CIRCUIT)

ID SW:IDCUTMC
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active and standby states of remote terminal (RT) timeslot management channel (TMC) circuits be switched (interchanged). This message is applicable for TR303 RTs (that is, AT&T Series 5 RTs running Feature Package 303G) terminating on a integrated digital carrier unit (IDCU).

2. FORMAT

SW:IDCUTMC=a-b-c[,UCL];

3. EXPLANATION OF MESSAGE

- UCL = Unconditionally execute the switch. Will perform a forced switch when one TMC is active and other is standby or out of service as long as the TMC being switched to is available.
- a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = IDCU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = RT number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message is valid but the request conflicts with current status.
- PF = Printout follows. Followed by the SW:IDCUTMC output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:IDCUTMC

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):
1880,x,yy (IDCU REMOTE TERMINAL)

ID SW:ISLUCC
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active/standby states of the integrated services line unit common controller (ISLUCC) be switched (interchanged).

Note: Both controllers must be in service before this message will be honored.

2. FORMAT

SW:ISLUCC=a-b;

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number.
- b = Integrated services line unit (ISLU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with the current status.
- PF = Printout follows. An SW:ISLUCC output message will follow.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:ISLUCC

Output Appendix(es):
APP:RANGES

MCC Display Page(s):
170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

ID SW:ISLUCD
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active/standby states of the integrated services line unit common data (ISLUCD) be switched (interchanged).

2. FORMAT

SW:ISLUCD=a-b;

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number.
- b = Integrated services line unit (ISLU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with the current status.
- PF = Printout follows. An SW:ISLUCD output message will follow.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:ISLUCD

Output Appendix(es):
APP:RANGES

MCC Display Page(s):
170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

ID SW:IWGLI
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active/standby of an inter-working gateway link interface (IWGLI) be switched (interchanged).

2. FORMAT

SW:IWGLI=a-b-c

3. EXPLANATION OF MESSAGE

- a = Switch module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Inter-working gateway (IWG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Data group (DG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message is valid but the request conflicts with current status.
- PF = Printout follows. Followed by the SW:IWGLI output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

ABT:IWGLI
DGN:IWGLI
RMV:IWGLI
RST:IWGLI
STP:IWGLI

Output Message(s):

SW:IWGLI

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1340,y (IWG)

ID SW:LUCOMC
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the selection of line unit common data and control (LUCOMC) circuits for gated diode crosspoint (GDX) control be switched.

For this message to be executed, the configuration of the LUCOMCs must be active/active; the message does not work for other configurations (such as active and out-of-service).

2. FORMAT

SW:LUCOMC=a-b;

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Line unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. May also include:
- SM DOES NOT EXIST = The message syntax is valid, but the requested SM is not in the system.
 - SM UNEQUIPPED = The message syntax is valid, but the requested SM is unequipped.
 - UNIT DOES NOT EXIST = The message syntax is valid, but the requested unit is not in the system.
- PF = Printout follows. Followed by the SW:LUCOMC output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources resulting in loss of communication to the requested switching module.

5. REFERENCES

Output Message(s):
SW:LUCOMC

Input Appendix(es):
APP:RANGES

ID SW:MCTSI
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that a module controller/time slot interchange (MCTSI) be switched from standby to active.

To allow a switch, the configuration of the module controller/time slot interchanges (MCTSI) must be active-standby; the message does not work for other configurations (such as unavailable and out-of-service).

2. FORMAT

SW:MCTSI=a;

3. EXPLANATION OF MESSAGE

a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the SW:MCTSI output message.

5. REFERENCES

Output Message(s):
SW:MCTSI

Input Appendix(es):
APP:RANGES

ID SW:MHD
RELEASE 5E15 and later
COMMAND GROUP AM
APPLICATION 5

1. PURPOSE

Requests a software switch of the logical names of the moving head disks (MHDs). This message allows any two MHDs in the office to swap identity for the purpose of file access. This allows disk memory to be remotely configured should a disk fail in an unstaffed office.

For example, if MHD 1; had a failure and the office had a spare MHD connected into the system as MHD 15, the two could swap identity with by entering:

SW:MHD=1:MHD=15;

After this message completes, MHD 15 will act as if it were MHD 1; for the purpose of file access. When MHD 15 is restored to service, it will get a copy of MHD 0 files, and MHD 0 and MHD 15 will be the primary duplex MHD pair.

Any time a primary MHD needs to be swapped, the ideal choice would be to swap it with the warm spare on the same disk file controller (DFC). For example, the superior swap choice for MHD 0 would be MHD 14, and the choice for MHD 1; would be MHD 15. This would prevent both primary disks from depending on the same DFC. If there are no warm spares available for swapping, then another MHD can be selected.

The system can continue to operate for an indefinite time with a reconfiguration in effect. Because the reconfiguration consists of equipment configuration data base (ECD) changes, care should be taken so that an incore activate does not copy the changes to disk. However, because the reconfiguration is incore only, a level 53 or higher boot will restore the original MHD configuration.

If both MHD 0 and MHD 1; have been swapped, the system will most likely NOT recover from a level* or higher boot. You should avoid this configuration, if possible.

Format 1 is used to swap an MHD with either a specified MHD or a system-selected MHD. (If both MHDs are specified, then they both must be out-of-service (OOS)).

Format 2 is used to restore either a specified MHD or all MHDs to their standard configuration.

2. FORMAT

[1] SW:MHD=a:[MHD=b|REPLACE];
[2] SW:MHD=[c|ALL]:STANDARD;

3. EXPLANATION OF MESSAGE

ALL = Restore all MHDs in the office.

REPLACE = System selected MHD to be substituted.

a = Number of the MHD to be replaced, typically the faulty OOS device. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

b = Number of the MHD to be substituted. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

c = Number of the MHD to have its configuration restored. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. May also include:

-CAN'T SWITCH MHD WITH ITSELF = MHD 'a' cannot be the same value as MHD 'b'.

PF = Printout follows. The message was accepted. Followed by one or more REPT:SW-MHD output messages. If either MHD is marked essential, then degrowth and growth messages will also follow.

RL = Retry later. May also include:

- PREVIOUS 'SW:MHD' COMMAND IN PROGRESS = The message was accepted, and one or more REPT:SW-MHD output.
- PREVIOUS COMMAND IN PROGRESS = System is unable to honor an additional request at this time.

5. REFERENCES

Input Message(s):
OP:MHD-CFG

Output Message(s):
OP:MHD
REPT:MHD-CONFIG
REPT:SW-MHD

Input Appendix(es):
APP:RANGES

Other Manual(s):

Where 'x' is the release-specific version of the document.
APP:RANGES

ID SW:NCOSC
RELEASE 5E15 and later
COMMAND GROUP CM
APPLICATION 5

1. PURPOSE

Switches the active network clock oscillator (NCOSC) to the specified side. Valid for network clock (NC) model 2 or 3.

For NC model 2: The command may be applied when both oscillators are active.

For NC model 3: The command will only be accepted when the oscillators are in an ACTIVE/STANDBY configuration. This configuration only exists when the ONTCs are simplex, since when the ONTCs are duplexed, each ONTC side uses its respective near oscillator and the oscillator states are ACTIVE/ACTIVE. When the ONTCs are simplex and neither oscillator is out of service, the ONTC will use the ACTIVE oscillator and the other one will be in the STANDBY state. This command can be used to switch the ACTIVE/STANDBY configuration by specifying the STANDBY oscillator in the command.

2. FORMAT

SW:NCOSC=a;

3. EXPLANATION OF MESSAGE

a = Network clock unit side for which the switch of active oscillator unit is requested. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. The message syntax is valid, but the request conflicts with the current system or equipment status.

OK = Good. The request was accepted and completed.

PF = Printout follows. Followed by the SW:NCOSC output message.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):
RST:NCOSC

Output Message(s):
REPT:NC
SW:NCOSC

Input Appendix(es):
APP:CM-IM-REASON
APP:RANGES

MCC Display Page(s):
1210(NETWORK CLOCK)
1211(NETWORK CLOCK REFERENCES)

ID SW:NCREF
RELEASE 5E15 and later
COMMAND GROUP CM
APPLICATION 5

1. PURPOSE

Requests that a network clock reference (NCREF) be switched to the specified clock reference source. This reference switch will occur on both clock sides as a result of this message.

2. FORMAT

SW:NCREF,a[,TYPE=b];

3. EXPLANATION OF MESSAGE

a = Network clock reference requested to be made active.

NC1		NC2 or NC3
PRIM	Primary reference.	REFn Reference number, n=1-8.
SEC	Secondary reference.	

b = Reference Type. This is only legal for NC3. This is only required if the same reference number is equipped with different reference types. The values are:

10M = 10 MHz analog clock reference.
2M = 2.048 MHz analog clock reference.
CC = 64K Composite clock reference.
DGTL = Digital clock reference.

4. SYSTEM RESPONSE

NG = No good. The request has been denied. The message syntax is valid, but the request conflicts with the current system or equipment status.

PF = Printout follows. The request has been received. Followed by the SW:NCREF output message.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):
RST:NCREF

Output Message(s):
SW:NCREF

Input Appendix(es):
APP:CM-IM-REASON
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):
1210 (NETWORK CLOCK)
1211 (NETWORK CLOCK REFERENCES)

ID SW:OFLBOOT
RELEASE 5E15 and later
COMMAND GROUP MAINT
APPLICATION 5,3B

1. PURPOSE

To perform a call processing side switch. This input message may be used only after a REPT OFLBOOT BOOT COMPLETED message has been received.

This input message may be used to switch call processing to the other side. After the switch, call processing is handled by the new on-line side, and the previous on-line side becomes the off-line side. The system remains split. A STOP:OFLBOOT is needed to return to duplex configuration. There are some restrictions the user must follow for this input message to execute successfully:

- There should be no diagnostic activities running.
- The maintenance teletypewriter (MTTY) and receive-only printer (ROP) port selector switches must be in the AUTO position and the portswitch controller must be powered on.

2. FORMAT

SW:OFLBOOT:[, UCL];

3. EXPLANATION OF MESSAGE

UCL = If specified, some application precheck results will be overridden. The *UNIX*¹ RTR precheck results will not be overridden. The default is enforce all precheck results.

4. SYSTEM RESPONSE

IP = In progress.
?A = Action field error.
?E = Error exists in the message.
?I = Identification field error.

5. REFERENCES

Input Message(s):
EXC:OFLBOOT
STOP:OFLBOOT

Output Message(s):
EXC:OFLBOOT
REPT:OFLBOOT
STOP:OFLBOOT
SW:OFLBOOT

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****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID SW:ONTC
RELEASE 5E15 and later
COMMAND GROUP CM
APPLICATION 5

1. PURPOSE

Requests that the activity of the office network and timing complex (ONTC) be switched. Both ONTC and ONTC 1; must be in service to perform a switch.

Warning: *This message may be service affecting. If the ONTC is unconditionally switched, switching modules may become isolated. If this message is used without the UCL option, checks will be made to insure that switching the ONTC will not affect service.*

2. FORMAT

SW:ONTC[,UCL];

3. EXPLANATION OF MESSAGE

UCL = Switch the ONTC unconditionally. This option can be used to switch ONTC sides when the ACT MINOR side is degraded. Refer to the WARNING in the Purpose section before using this option.

4. SYSTEM RESPONSE

NG = No good. The request has been denied. The message syntax is valid, but the request could not be processed. Refer to the APP:CM-IM-REASON appendix in the Appendixes section of the Input Messages manual for a list of possible reasons for denying the request.

PF = Printout follows.

RL = Retry later. The request cannot be executed now because the communication module (CM) deferred maintenance queue (DMQ) is full.

5. REFERENCES

Input Message(s):
 OP:CFGSTAT
 RST:ONTC

Input Appendix(es):
 APP:CM-IM-REASON

Output Message(s):
 OP:CFGSTAT
 RST:ONTC
 SW:ONTC

ID SW:PHGRP
RELEASE 5E19(1) and later
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Request that the serving/nonserving states of a protocol handler (PH) group (PHGRP) can be switched.

2. FORMAT

SW:PHGRP=a-b-c;

3. EXPLANATION OF MESSAGE

- a = Switching module (SM). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Packet switch unit (PSU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = PH group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message is valid but the request conflicts with current equipment or status. Refer to the APP:SYS-RESPONSE appendix in the Appendixes section of the Input Messages manual.
- PF = Printout follows. Followed by the SW:PHGRP output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:PHGRP

Input Appendix(es):
APP:RANGES
APP:SYS-RESPONSE

MCC Display Page(s):

1188,b,y,a PH GROUP STATUS (where b=PSU number, y=Screen number, and a=SM number)

ID SW:PLTLK
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active/standby states of a PCTFI (Peripheral Control and Timing Facility Interface) be switched (interchanged). This command is honored only if the PCT links are in ACT/STBY configuration.

2. FORMAT

SW:PLTLK=a-b-c;

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = PLTU (PCT Line and Trunk Unit) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = PCT Facility Interface number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. Valid values are:
 - REASON FOR NG = The message form is valid, but the request conflicts with current status.
- PF = Printout follows. A SW PLTLK output message follows.
- RL = Retry later. The request cannot be executed now due to unavailable system resource.

5. REFERENCES

Input Message(s):

ABT:PLTLK
DGN:PLTLK
STP:PLTLK
RMV:PLTLK
RST:PLTLK

Output Message(s):

SW:PLTLK

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*

235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1430 (PLTU Status page)

ID SW:PORTSW
RELEASE 5E15 and later
COMMAND GROUP AM
APPLICATION 5,3B

1. PURPOSE

Requests a switch of the maintenance teletypewriter controller's (MTTYC's) receive-only printer (ROP) and/or maintenance teletypewriter (MTTY) to the alternate MTTYC and a switch of the active/standby status of the MTTY and/or ROP. The switch can succeed only if the alternate MTTYC and its MTTY and/or ROP are in an acceptable state. If no switchable device is specified, both the MTTY and ROP are switched to the alternate MTTYC.

2. FORMAT

SW:PORTSW[,a];

3. EXPLANATION OF MESSAGE

a = Port switchable subdevice name (MTTY or ROP).

4. SYSTEM RESPONSE

NG = No good. Bad open on equipment configuration database (ECD) or the subdevice must be MTTY or ROP.

PF = Printout follows. Followed by the SW:PORTSW output message.

?I = Extra keywords.

5. REFERENCES

Output Message(s):
SW:PORTSW

MCC Display Page(s):
(COMMON PROCESSOR DISPLAY)

ID SW:PPC
RELEASE 5E15 and later
COMMAND GROUP CM
APPLICATION 5

1. PURPOSE

Requests that the activity of the pump peripheral controller (PPC) be switched. The PPCs must be active standby to allow a switch.

Note: A switch PPC request will be denied if the active PPC is currently being used to pump an SM.

2. FORMAT

SW:PPC;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NG = No good. The message was invalid.

PF = Printout follows. Followed by the SW:PPC output message.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

OP:CFGSTAT

RST:PPC

Output Message(s):

OP:CFGSTAT-CM

RST:PPC

SW:PPC

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*

235-105-220 *Corrective Maintenance*

235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1241, 1251 (MSGs COMMUNITIES)

1240, 1250 (MSGs STATUS for CM3)

ID SW:PSALNK
RELEASE 5E16(2) and later
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Request that the active/standby states of a packet switch unit (PSU) asynchronous transfer mode (ATM) link (PSALNK) channels be switched.

2. FORMAT

SW:PSALNK=a-b-c;

3. EXPLANATION OF MESSAGE

- a = Switching module (SM). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = PSU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = ATM link number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message is valid but the request conflicts with current equipment or status. Refer to the APP:SYS-RESPONSE appendix in the Appendixes section of the Input Messages manual.
- PF = Printout follows. Followed by the SW:PSALNK output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):
CLR:PSALNK
SET:PSALNK

Output Message(s):
SW:PSALNK

Input Appendix(es):
APP:RANGES
APP:SYS-RESPONSE

MCC Display Page(s):

1187,y,x PSU/ATM LINKS STATUS (where y=PSU number and x=SM number)

ID SW:PSLNK-A
RELEASE 5E15 only
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Request that the active/standby states of the packet switch unit (PSU) link (PSLNK) channels be switched.

A PSU link is uniquely identified by the community addresses (CAs) of two PSUs that this PSU link connects. The near end PSU CA can be entered directly in the input message line or can be translated by the switch from the entered PSU equipment number. However, the far end CA can not be specified by the PSU equipment number and must always be entered as PSU CA. NOTE: For gateway protocol handlers (PH) the only valid input message format is #4. Other formats will not yield the expected results.

2. FORMAT

[1] SW:PSLNK=a-b;
[2] SW:PSLNK,PSUCA=a,FARCA=b;
[3] SW:PSLNK,PSU=c-0,FARCA=b;
[4] SW:PSLNK,PSUCA=a;

3. EXPLANATION OF MESSAGE

a = Near PSU community address of the PSU link.

b = Far PSU community address of the PSU link.

Note: The far end CA must be zero if the PSU link is connected to an asynchronous transfer mode (ATM) switch in a point-to-multipoint configuration network.

c = Switching module (SM) number.

4. SYSTEM RESPONSE

NG = No good. The request has been denied. The message is valid but the request conflicts with current equipment or status.

PF = Printout follows. Followed by the SW:PSLNK output message.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

CLR:PSLNK

SET:PSLNK

Output Message(s):

SW:PSLNK

MCC Display Page(s):

PSU LINKS STATUS

ID SW:PSLNK-B
RELEASE 5E16(1) and later
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Request that the active/standby states of the packet switch unit (PSU) link (PSLNK) channels be switched.

A PSU link is uniquely identified by the community addresses (CAs) of two PSUs that this PSU link connects. The near end PSU CA can be entered directly in the input message line or can be translated by the switch from the entered PSU equipment number. However, the far end CA can not be specified by the PSU equipment number and must always be entered as PSU CA.

2. FORMAT

[1] SW:PSLNK=a-b;

[2] SW:PSLNK,PSUCA=a,FARCA=b;

[3] SW:PSLNK,PSU=c-d,FARCA=b;

3. EXPLANATION OF MESSAGE

a = Near PSU community address of the PSU link. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

b = Far PSU community address of the PSU link. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

Note: The far end CA must be zero if the PSU link is connected to an asynchronous transfer mode (ATM) switch in a point-to-multipoint configuration network.

c = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

d = PSU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. The request has been denied. The message is valid but the request conflicts with current equipment or status. Refer to the APP:SYS-RESPONSE appendix in the Appendixes section of this Input Messages manual.

PF = Printout follows. Followed by the SW:PSLNK output message.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):

CLR:PSLNK

SET:PSLNK

Output Message(s):

SW:PSLNK

MCC Display Page(s):

1187,y PSU LINKS STATUS (where y=PSU number)

ID SW:PSUCOM-A
RELEASE 5E15 only
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active/standby states of the packet switch unit (PSU) common controllers (COM) be switched (interchanged).

2. FORMAT

SW:PSUCOM=a-b;

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = PSU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with current status.
- PF = Printout follows. Followed by the SW:PSU output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:PSUCOM

Input Appendix(es):
APP:RANGES

MCC Display Page(s):
118x (PSU SHELF)
1186 (PSU NETWORK)

ID SW:PSUCOM-B
RELEASE 5E16(1) and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active/standby states of the packet switch unit (PSU) common controllers (COM) be switched (interchanged).

2. FORMAT

SW:PSUCOM=a-b;

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = PSU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with current status.
- PF = Printout follows. Followed by the SW:PSU output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:PSUCOM

Input Appendix(es):
APP:RANGES

MCC Display Page(s):
PSU SHELF
PSU NETWORK

ID SW:PSUPH
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active/standby states of the packet switch unit (PSU) protocol handlers (PH) be switched.

2. FORMAT

SW:PSUPH=a-b-c-d[,GRP=e];

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = PSU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = PH number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Channel group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message form is valid, but the request conflicts with current status.
- PF = Printout follows. An SW:PSUPH output message will follow.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:PSUPH

Input Appendix(es):
APP:RANGES

MCC Display Page(s):
118x (PSU SHELF)

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID SW:QLPS
RELEASE 5E15 and later
COMMAND GROUP CM
APPLICATION 5

1. PURPOSE

Requests activation of a standby quad-link packet switch (QLPS) processor.

Warning: *The use of this input message with the unconditional option could result in the loss of transient calls/reduction in call processing capacity. Use with extreme caution!*

2. FORMAT

SW:QLPS=a-b[,UCL];

3. EXPLANATION OF MESSAGE

- UCL = Switch QLPS network unconditionally. Although this option cannot override the primary criteria not to increase the number of switching module-2000s (SM-2000s) which are isolated from both QLPS networks or all QGPs (if equipped), it is possible to reduce messaging capacity or enter overload, which would impact call processing.
- a = Office network and timing complex (ONTC) side number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual. Note that this argument is required only to be consistent with other QLPS requests; irrespective of the 0 or 1 entry, an attempt will be made to switch QLPSs in the network designated by field 'b'.
- b = QLPS network number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message syntax was valid, but the request could not be processed. Refer to the APP:CM-IM-REASON appendix in the Appendixes section of the Input Messages manual for a list of possible reasons for denying the request.
- PF = Printout follows.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:QLPS

Input Appendix(es):
APP:CM-IM-REASON
APP:RANGES

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):
1209 (ONTC 0 & 1)
1380, 1381 (QLPS NETWORK STATUS)

ID SW:RCLK
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the status of active and standby remote clock (RCLK) circuits be switched.

2. FORMAT

SW:RCLK=a;

3. EXPLANATION OF MESSAGE

a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. May also include:

- NOT STARTED UNIT IN GROWTH STATE
- SM DOES NOT EXIST
- SM UNEQUIPPED
- UNIT DOES NOT EXIST

PF = Printout follows. Followed by the SW:RCLK output message.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:RCLK

Input Appendix(es):
APP:RANGES

MCC Display Page(s):
1170 (RSM RCLK)

ID SW:RCOSC
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests the switch of active remote clock oscillators (RCOSC) to the specified remote clock (RCLK) side. This is not actually switching the RCOSC, but is switching the RCLK timing source.

2. FORMAT

SW:RCOSC=a-b;

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = RCLK side. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. May also include:
 - NOT STARTED UNIT IN GROWTH STATE
 - SM DOES NOT EXIST
 - SM UNEQUIPPED
 - UNIT DOES NOT EXIST
- PF = Printout follows. Followed by the SW:RCOSC output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):
RMV:RCOSC
RST:RCOSC

Output Message(s):
SW:RCOSC

Input Appendix(es):
APP:RANGES

MCC Display Page(s):
1170 (RSM RCLK)

ID SW:RCREF
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that an active remote clock reference (RCREF) be switched to the specified clock reference.

2. FORMAT

SW:RCREF=a-b;

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Equipped reference number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. May also include:
 - NOT STARTED UNIT IN GROWTH STATE
 - SM DOES NOT EXIST
 - SM UNEQUIPPED
 - UNIT DOES NOT EXIST
- PF = Printout follows. Followed by the SW:RCREF output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:RCREF

Input Appendix(es):
APP:RANGES

MCC Display Page(s):
1170 (RSM RCLK)

ID SW:RLI
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that activity of the remote switching module (RSM) remote link interface (RLI) circuit be switched. This message is honored only if the RLI controllers are in an active/standby configuration.

2. FORMAT

SW:RLI=a-b;

3. EXPLANATION OF MESSAGE

- a = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = RLI number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual. The standby controller is made active regardless of this variable.

4. SYSTEM RESPONSE

- NG = No good. Request denied because of a conflict with current status.
- PF = Printout follows. Followed by the SW:RLI output message.

5. REFERENCES

Output Message(s):
SW:RLI

Input Appendix(es):
APP:RANGES

ID SW:RRCLK
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active/standby states of the remote integrated services line unit (RISLU) remote clock circuit packs (RRCLKs) be switched (interchanged).

Note: Both RRCLK packs must be in service before this message will be honored.

2. FORMAT

SW:RRCLK=a-b[, SCREEN=c];

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = RISLU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Although this option is syntactically correct, it is set internally for cross checking purposes and values entered here will be ignored.

4. SYSTEM RESPONSE

- NG = No good. May also include:
 - CONFLICT WITH UNIT STATE
 - SM DOES NOT EXIST
 - SM UNEQUIPPED
 - UNIT DOES NOT EXIST
- PF = Printout follows. Followed by the SW:RRCLK output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
RMV:RRCLK

Input Appendix(es):
APP:RANGES

MCC Display Page(s):
145y,x (RISLU DLTU)

ID SW:RT-EOC
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active and standby states of remote terminal (RT) embedded operations channel (EOC) circuits be switched (interchanged). This message is applicable for TR303 RTs (that is, Series 5 RTs running feature package 303G) terminating on an integrated digital carrier unit (IDCU) or a digital networking unit - synchronous optical network (DNU-S).

2. FORMAT

SW:RT,EOC=a[,UCL];

3. EXPLANATION OF MESSAGE

UCL = Unconditionally execute the switch. Will perform a forced switch when one EOC is active and the other is standby or out of service as long as the EOC being switched to is available.

a = Site identification number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. The request has been denied. The message is valid but the request conflicts with current status.

PF = Printout follows. Followed by the SW:RT-EOC output message.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:RT-EOC

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):
1880,x,yy (IDCU REMOTE TERMINAL)
1660,xxxx (TR303 REMOTE TERMINAL)

ID SW:RT-TMC
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active and standby states of remote terminal (RT) timeslot management channel (TMC) circuits be switched (interchanged). This message is applicable for TR303 RTs (that is, Series 5 RTs running feature package 303G) terminating on an integrated digital carrier unit (IDCU) or a digital networking unit - synchronous optical network (DNU-S).

2. FORMAT

SW:RT,TMC=a[,UCL];

3. EXPLANATION OF MESSAGE

UCL = Unconditionally execute the switch. Will perform a forced switch when one TMC is active and the other is standby or out of service as long as the TMC being switched to is available.

a = Site identification number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. The request has been denied. The message is valid but the request conflicts with current status.

PF = Printout follows. Followed by the SW:RT-TMC output message.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:RT-TMC

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):
1880,x,yy (IDCU REMOTE TERMINAL)
1660,xxxx (TR303 REMOTE TERMINAL)

ID SW:SERV
RELEASE 5E16(2) and later
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests the that the service selection of a processor group be switched.

A service selection switch is only allowed when one processor in the processor group is SERVING and the other is NON-SERVING. If a processor group is equipped with only one processor, a manual switch is not permitted.

2. FORMAT

SW:SERV,{PCRGPR=a-b|PSUPH=a-c-d-e};

3. EXPLANATION OF MESSAGE

- a = Global services module (GSM) on which the processor group is equipped.
- b = Processor group.
- c = Packet switching unit (PSU) number.
- d = PSU shelf number.
- e = PH position number.

4. SYSTEM RESPONSE

- ?D = Input data error.
- PF = Printout follows.
- RL = Retry later.

5. REFERENCES

Input Message(s):
RMV:PSUPH

Output Message(s):
SW:SERV

Input Appendix(es):
APP:RANGES

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID SW:SFI
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the active/standby states of a digital networking unit - synchronous optical network (DNU-S) STSX-1 facility interface (SFI) be switched (interchanged).

Warning: *A switch of an SFI will generate transient errors on the facilities.*

2. FORMAT

SW:SFI=a-b-c[,UCL];

3. EXPLANATION OF MESSAGE

UCL = This option is required for an SFI switch since all facilities for the entire data group will be affected.

a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

b = DNU-S number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

c = Data group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG = No good. The message form is valid, but the request conflicts with the current status.

PF = Printout follows. Followed by the SW:SFI output message.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
SW:SFI

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):
1510 (DNUS STATUS)

ID TELL:LIB
RELEASE 5E15 and later
COMMAND GROUP ADMIN
APPLICATION 5

1. PURPOSE

Provides the data string entered to the specified library program(s). No modification is made to the message. The library program is responsible for accepting the message from the library client supervisor, and acting on it as desired.

2. FORMAT

TELL:LIB:TEAM=a[,AM][{,SM=b[-b][-b][-b][-b]|,SM=c&&d}],DATA=e;

3. EXPLANATION OF MESSAGE

- AM = Send the data to the library program running in the administrative module (AM) under this team.
- a = The team number (1-15) to which this input message applies. This number is specified in the LOAD:LIB input message, and is used so that more than one person may test at the same time, using different team numbers.
- b = Switching module (SM) number(s) to which the data is to be sent. A range could be used instead, as indicated.
- c = Lower limit of a range of SM numbers.
- d = Upper limit of a range of SM numbers.
- Note: If neither the AM or any SMs are specified, the TELL:LIB message is sent to the AM and all SMs with clients loaded under the same team as that specified.
- e = The string of data to be passed to the client program.

4. SYSTEM RESPONSE

- NG = No good. Either the team number or SM number(s) is illegal. SMs that have not initialized cannot be sent messages.
- PF = Printout follows. Message has been sent to the SMs/AM or TEAM specified.

5. REFERENCES

Output Message(s):
TELL:LIB

ID TRC:CLID
RELEASE 5E15 and later
COMMAND GROUP TRACE
APPLICATION 5

1. PURPOSE

Requests that a directory number (DN) be added to or deleted from the calling line identification (CLID) list.

Note: The CLID list contains directory numbers outside the office. When a call is made to a listed DN, the originating DN will be identified.

2. FORMAT

TRC:CLID:{ADD|DEL},DN=a;

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym Section of the Input Messages manual for the full expansion of any acronyms shown in the format.

a = Directory number to be added to or deleted from the CLID list.

4. SYSTEM RESPONSE

NG = No good. May also include:

- DUPLICATE DN = The number being added is already on the CLID list.
- INCORRECT STATE, USE ADD OR DEL = ADD enters the DN on the CLID list.
DEL deletes the DN from the CLID list.
- LIST EMPTY = The CLID list does not contain any DNs.
- LIST FULL = CLID list is full. Remove one of the numbers on the CLID list to add a new DN.
- REENTER DN WITH NPA = The Office Code (NXX), is in multiple Numbering Plan Areas (NPA). Reenter the DN with an NPA.
- UNKNOWN DN = The number being deleted is not on the CLID list.

OK = Good. The request has been accepted and completed.

5. REFERENCES

Input Message(s):
OP:CLID

Output Message(s):
TRC:IPCT-EVENT
TRC:IPCT-FAILED

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*
235-190-102 *Business and Residence Non-Modular Features*

ID TRC:IPCT
RELEASE 5E15 and later
COMMAND GROUP TRACE
APPLICATION 5

1. PURPOSE

Requests an in-progress call trace (IPCT) by using either the directory number (DN), the multiline hunt group and member number (MLHG), the trunk group and member number (TKGMN), the process ID (PID), or the origination point code, destination point code, and raw call instance code (OPCDPC) of the party to be traced.

For shared DN, only the primary DN will be traced. For MLHG, only the primary MLHG member will be traced. If DN corresponds to a line time slot bridging (LTSB) port, the call controller will be traced. For non-end trace (END=n), IPCT will only trace the call up to the intermodule trunk (IMT) if the call goes through an IMT. IPCT does not apply to Direct Inward Dialing (DID) trunks because the trunk group and member number of DID trunks map to a group of ports, not to an individual port.

2. FORMAT

```
[1]   TRC:IPCT:{DN=a|MLHG=b-c|TKGMN=d-e}[ ,HARDHOLD][ ,END=f];  
[2]   TRC:IPCT:PID=g-h-i[ ,END=f];  
[3]   TRC:IPCT:OPCDPC=j-k-l;
```

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym Section of the Input Messages manual for the full expansion of any acronyms shown in the format.

HARDHOLD = Call trace option for hardhold call. Default is for non-hardhold call trace.

- a = DN of the line to be traced.
- b = Group number of the multi-line hunt group of the line to be traced.
- c = Member number of the multi-line hunt group of the line to be traced.
- d = Trunk group of the trunk to be traced.
- e = Member number of the trunk to be traced.
- f = End trace flag. Valid value(s):
 - y = End trace through IMT (default).
 - n = Non-end trace.
- g = Process number of the PID.
- h = Switching module (SM) number of the PID.
- i = Uniqueness number of the PID.
- j = Asynchronous Transfer Mode (ATM) origination point code (OPC) number.
- k = ATM destination point code (DPC) number.
- l = ATM raw call instance code (RCIC) number.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the TRC:IPCT output message. May also include:
 - EVENT n = The trace request (identified by the event number 'n') has been accepted, and the specified line will be traced.

5. REFERENCES

Output Message(s):

TRC:IPCT-EVENT

TRC:IPCT-FAILED

Other Manual(s):

235-105-220 *Corrective Maintenance*

235-190-115 *Local and Toll System Features*

ID TRC:UTIL-A
RELEASE 5E15 - 5E16(1)
COMMAND GROUP TRACE
APPLICATION 5

1. PURPOSE

Requests a utility call trace snapshot of the resources used by an in-progress call, and to update the hardware call trace Master Control Center (MCC) page with new trace data.

2. FORMAT

```
[1] TRC:UTIL:{DN=a|MLHG=b-c}[[,CH=r][,PKT]][,SA={o1|ALL}]]  
    [,CID={n|ALL}]][,HARDHOLD][,DDS=z]];  
[2] TRC:UTIL:{LEN=d-e-f-g-h-i|SLEN=d-k-l-m|CKT=d-f1|TS=d-h1|  
    LUCHAN=d-e-w-m1-n1}[,HARDHOLD];  
[3] TRC:UTIL:{TKGMN=b-c|DEN=d-a1-b1-c1}[,PKT];  
[4] TRC:UTIL:{PID=j-d-l1|TEN=d-v-w-x-y|NEN=d-e1-g1-b2-j1-c2-j1-k1|  
    RAF=d-s-t|SAS=d-s-t};  
[5] TRC:UTIL:LCEN=d-e-w1-q[[,CH=r][,PKT]][,HARDHOLD]];  
[6] TRC:UTIL:LCKEN=d-x1-p-v1-y1[[,CH=r][,PKT]][,HARDHOLD]];  
[7] TRC:UTIL:ILEN=d-o-l-m[[,CH=r][,PKT]][,HARDHOLD][,DDS=z]];  
[8] TRC:UTIL:PORT=d-d1[[,PKT]][,HARDHOLD][,DDS=z]];  
[9] TRC:UTIL:BST=p1-q1[,CH={D|B1}];  
[10] TRC:UTIL:OPT=p1-q1[,LOOP=u][,CH={D|B1}];  
[11] TRC:UTIL:PSUEN=d-r1-s1-t1-u1;  
[12] TRC:UTIL:INEN=d-e1-z1-a2[[,CH=r][,PKT]][,HARDHOLD][,DDS=z]];  
[13] TRC:UTIL:PLTEN=d-d2-e2-f2-c1;  
[14] TRC:UTIL:OPCDPC=g2-h2-i2;
```

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

HARDHOLD = Call trace request option for hardhold call. Default is non-hardhold utility call trace. Hardhold is an analog only feature.

PKT = Packet utility call trace request. Default is non-packet utility call trace.

a = DN of the line to be traced. If DN corresponds to a line time slot bridging (LTSB) port, call controller will be traced.

b = Trunk or MLHG group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

c = Trunk or MLHG member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

d = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

e = Integrated services line number (ISLU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

f = Grid number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

g = Switch board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

h	= Switch number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
i	= Level number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
j	= Process number of the PID.
k	= Digital carrier line unit (DCLU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
l	= Remote terminal (RT) number or IDCU DS1 serving PUB43801 number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
m	= RT line number or PUB43801 channel. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
n	= ID number of call on DN or MLHG (0-31). When 'ALL' is specified, all calls for this DN or MLHG are listed in chronological order. This option can only be used on DNs or MLHGs on standard, non-electronic key telephone set (EKTS) DSLs.
o	= IDCU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
p	= Line group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
q	= Line card number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
r	= Channel identifier. Valid value(s): B1 B2 D (default)
s	= RAF or SAS unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
t	= Announcement port number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
u	= OPT operator call loop number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual. Defaults to active loop. Enter a zero to trace the active loop. This option can only be used with an OPT.
v	= Trunk unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
w	= Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
x	= Channel board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
y	= Circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
z	= DDS path identifier: 1 or 2, default to 0. For use with dual path DDS only.
a ¹	= Digital line and trunk unit (DLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
b ¹	= Digital facility interface (DFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

c ¹	= Channel number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
d ¹	= Port name (key of PORTLA). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
e ¹	= Digital networking unit - SONET (DNU-S) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
f ¹	= Circuit name (key of CDBCOM). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
g ¹	= Data group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
h ¹	= Key of source time slot data block (TSDB) to be traced. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
i ¹	= Synchronous transport signal (STS) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
j ¹	= Virtual Tributary Member (VTM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
k ¹	= Digital signal level 0 (DS0) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
l ¹	= Uniqueness number of the PID.
m ¹	= Channel board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
n ¹	= Channel circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
o ¹	= SA number of DN or MLHG. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual. When 'ALL' is specified, all busy SAs of this DN or MLHG are listed. This option can only be used with a DN or MLHG that uses sub-addresses.
p ¹	= Operator service center (OSC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
q ¹	= Relative position number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
r ¹	= Packet switching unit (PSU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
s ¹	= PSU shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
t ¹	= PSU channel group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
u ¹	= PSU channel group member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
v ¹	= Line board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
w ¹	= Line group controller number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
x ¹	= Integrated service line unit 2 (ISLU2) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

y ¹	= Line circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
z ¹	= Remote digital terminal (RDT) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
a ²	= Line number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
b ²	= Signaling terminal equipment (STE) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
c ²	= Virtual tributary group (VTG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
d ²	=PCT line and trunk (virtual) unit number (PLTU). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
e ²	= PCT facility interface number (PCTFI). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
f ²	= The PCT tributary number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
g ²	= Bearer Independant Call Control (BICC) origination point code (OPC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
h ²	= BICC destination point code (DPC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
i ²	= BICC raw call instance code (RCIC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

NG	= No good. Includes one of the following: - BAD CHANNEL = A channel type was specified on an analog line or a trunk. - BAD OPTION = Incompatible options were selected. - BAD SA/ID = A bad sub-address or ID number was specified. - CIRCUIT DESCRIPTOR = A bad universal tone decoder (UTD), universal tone generator (UTG), LUCHAN, or CKT input was specified. - IDLE SA/ID = The traced sub-address or ID was idle. - INTERNAL ERROR = Undetermined errors, possibly a software bug. Retry the request at a later time. This response may be accompanied by an assert. - NOT PRIMARY DN/MLHG = The traced DN or MLHG is not primary on any terminal. Either input the primary DN/MLHG of the terminal you wish to trace or specify an SA number for this DN/MLHG. - NOT PACKET = The PKT option was requested on a non-packet call. - PORT DESCRIPTOR = A bad DN, LEN, LCEN, SLEN, MLHG, TKGMN, TEN, DEN, or PORT description was specified. - REENTER DN WITH NPA = The office code (NXX), is in multiple numbering plan areas (NPA). Reenter the DN with an NPA. - SA/ID NOT ALLOWED = A sub-address or ID number was specified on a line that does not use them. - SM NOT OPERATIONAL = The SM where the trace should begin is not operational. - TRACE NOT SUPPORTED ON SPECIFIED PORT = Traced port not supported. - UNKNOWN INPUT = Input was not recognized.
OK	= Okay. Includes the following: - SEE STATUS PAGE = All sub-addresses or IDs for the DN or MLHG have been traced. The results are displayed on the TRACEABLE CALL STATUS MCC Display Page.

- PF = Printout follows. Includes the following:
- EVENT n = The trace event (identified by the number 'n') has been accepted and is being processed. One or more TRC:UTIL output messages will follow.
- RL = Retry later. Includes one of the following:
- MSG = Unable to send the message that starts the trace.
 - TIMER = Unable to set a timer.
 - TRACE IN PROGRESS = A trace is currently in progress.

5. REFERENCES

Input Message(s):

OP:TRC

Output Message(s):

TRC:UTIL-4WLN
TRC:UTIL-CONF
TRC:UTIL-FAILED
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-LINE
TRC:UTIL-LINK
TRC:UTIL-PID
TRC:UTIL-TRK

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132 (CALL TRACE MENU)
133-138 (HARDWARE CALL TRACE - 1 THROUGH 6)
139 (ISDN PACKET SWITCH CALL TRACE)
140 (HARDWARE CALL TRACE)
150 (TRACEABLE CALL STATUS)
151 (CONFERENCE CIRCUIT TRACE)

ID TRC:UTIL-B
RELEASE 5E16(2) only
COMMAND GROUP TRACE
APPLICATION 5

1. PURPOSE

Requests a utility call trace snapshot of the resources used by an in-progress call, and to update the hardware call trace Master Control Center (MCC) page with new trace data.

2. FORMAT

```
[1] TRC:UTIL:{DN=a|MLHG=b-c}[[,CH=r][,PKT]][,SA={o1|ALL}]] . . .
    . . .[,CID={n|ALL}]][,HARDHOLD]][,DDS=z]];
```

```
[2] TRC:UTIL:{LEN=d-e-f-g-h-i|SLEN=d-k-l-m|CKT=d-f1|TS=d-h1| . . .
    . . .LUCHAN=d-e-w-m1-n1}}[,HARDHOLD]];
```

```
[3] TRC:UTIL:{TKGMN=b-c|DEN=d-a1-b1-c1}}[,PKT]];
```

```
[4] TRC:UTIL:{PID=j-d-l1|TEN=d-v-w-x-y|NEN=d-e1-g1-b2-i1-c2-j1-k1| . . .
    . . .RAF=d-s-t|SAS=d-s-t}};
```

```
[5] TRC:UTIL:LCEN=d-e-w1-q[[,CH=r][,PKT]][,HARDHOLD]]];
```

```
[6] TRC:UTIL:LCKEN=d-x1-p-v1-y1[[,CH=r][,PKT]][,HARDHOLD]]];
```

```
[7] TRC:UTIL:ILEN=d-o-l-m[[,CH=r][,PKT]][,HARDHOLD]][,DDS=z]]];
```

```
[8] TRC:UTIL:PORT=d-d1[[,PKT]][,HARDHOLD]][,DDS=z]]];
```

```
[9] TRC:UTIL:BST=p1-q1[[,CH={D|B1}]]];
```

```
[10] TRC:UTIL:OPT=p1-q1[[,LOOP=u][,CH={D|B1}]]];
```

```
[11] TRC:UTIL:PSUEN=d-r1-s1-t1-u1];
```

```
[12] TRC:UTIL:INEN=d-e1-z1-a2[[,CH=r][,PKT]]| . . .
    . . .[,HARDHOLD]][,DDS=z]]];
```

```
[13] TRC:UTIL:PLTEN=d-d2-e2-f2-c1];
```

```
[14] TRC:UTIL:OPCDPC=g2-h2-i2];
```

```
[15] TRC:UTIL:OIUEN=d-j2-k2-l2-m2-c2-j1-k1];
```

```
[16] TRC:UTIL:OIUUDP=d-j2-k2-n2-o2-p2];
```

```
[17] TRC:UTIL:LTAG=q2-r2-s2-t2-u2];
```

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

HARDHOLD = Call trace request option for hardhold call. Default is non-hardhold utility call trace. Hardhold is an analog only feature.

PKT = Packet utility call trace request. Default is non-packet utility call trace.

- a = DN of the line to be traced. If DN corresponds to a line time slot bridging (LTSB) port, call controller will be traced.
- b = Trunk or MLHG group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Trunk or MLHG member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Integrated services line number (ISLU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = Grid number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- g = Switch board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- h = Switch number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- i = Level number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- j = Process number of the PID.
- k = Digital carrier line unit (DCLU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- l = Remote terminal (RT) number or IDCU DS1 serving PUB43801 number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- m = RT line number or PUB43801 channel. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- n = ID number of call on DN or MLHG (0-31). When 'ALL' is specified, all calls for this DN or MLHG are listed in chronological order. This option can only be used on DNs or MLHGs on standard, non-electronic key telephone set (EKTS) DSLs.
- o = IDCU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- p = Line group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- q = Line card number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- r = Channel identifier. Valid value(s):
 - B1
 - B2
 - D (default)
- s = RAF or SAS unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- t = Announcement port number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- u = OPT operator call loop number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual. Defaults to active loop. Enter a zero to trace the active loop. This option can only be used with an OPT.
- v = Trunk unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

w	= Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
x	= Channel board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
y	= Circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
z	= DDS path identifier: 1 or 2, default to 0. For use with dual path DDS only.
a ¹	= Digital line and trunk unit (DLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
b ¹	= Digital facility interface (DFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
c ¹	= Channel number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
d ¹	= Port name (key of PORTLA). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
e ¹	= Digital networking unit - synchronous optical network (SONET) (DNU-S) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
f ¹	= Circuit name (key of CDBCOM). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
g ¹	= Data group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
h ¹	= Key of source time slot data block (TSDB) to be traced. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
i ¹	= Synchronous transport signal (STS) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
j ¹	= Virtual tributary member (VTM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
k ¹	= Digital signal level 0 (DS0) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
l ¹	= Uniqueness number of the PID.
m ¹	= Channel board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
n ¹	= Channel circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
o ¹	= SA number of DN or MLHG. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual. When 'ALL' is specified, all busy SAs of this DN or MLHG are listed. This option can only be used with a DN or MLHG that uses sub-addresses.
p ¹	= Operator service center (OSC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
q ¹	= Relative position number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
r ¹	= Packet switching unit (PSU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

s ¹	= PSU shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
t ¹	= PSU channel group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
u ¹	= PSU channel group member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
v ¹	= Line board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
w ¹	= Line group controller number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
x ¹	= Integrated service line unit 2 (ISLU2) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
y ¹	= Line circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
z ¹	= Remote digital terminal (RDT) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
a ²	= Line number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
b ²	= SONET terminal equipment (STE) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
c ²	= Virtual tributary group (VTG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
d ²	= PCT line and trunk (virtual) unit (PLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
e ²	= PCT facility interface (PCTFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
f ²	= The PCT tributary number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
g ²	= Bearer independent call control (BICC) origination point code (OPC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
h ²	= BICC destination point code (DPC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
i ²	= BICC raw call instance code (RCIC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
j ²	= Optical interface unit (OIU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
k ²	= Protection group (PG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
l ²	= OC-3 STE number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
m ²	= STS level 1 (STS-1). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
n ²	= Optical carrier - level 3 (OC3C) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
o ²	= Synchronous transport signal - level 3 (STS3C) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

- p² = User datagram protocol (UDP) source port.
q² = Session initiation protocol (SIP) global SM (GSM) index.
r² = Processor group (PG).
s² = SIP call processing SM number.
t² = SIP map index (map IDX).
u² = SIP process number.

4. SYSTEM RESPONSE

- NG = No good. May also include:
- BAD CHANNEL = A channel type was specified on an analog line or a trunk.
 - BAD OPTION = Incompatible options were selected.
 - BAD SA/ID = A bad sub-address or ID number was specified.
 - CIRCUIT DESCRIPTOR = A bad universal tone decoder (UTD), universal tone generator (UTG), LUCHAN, or CKT input was specified.
 - IDLE SA/ID = The traced sub-address or ID was idle.
 - INTERNAL ERROR = Undetermined errors, possibly a software bug. Retry the request at a later time. This response may be accompanied by an assert.
 - NOT PRIMARY DN/MLHG = The traced DN or MLHG is not primary on any terminal. Either input the primary DN/MLHG of the terminal you wish to trace or specify an SA number for this DN/MLHG.
 - NOT PACKET = The PKT option was requested on a non-packet call.
 - PORT DESCRIPTOR = A bad DN, LEN, LCEN, SLEN, MLHG, TKGMN, TEN, DEN, or PORT description was specified.
 - REENTER DN WITH NPA = The office code (NXX), is in multiple numbering plan areas (NPA). Reenter the DN with an NPA.
 - SA/ID NOT ALLOWED = A sub-address or ID number was specified on a line that does not use them.
 - SM NOT OPERATIONAL = The SM where the trace should begin is not operational.
 - TRACE NOT SUPPORTED ON SPECIFIED PORT = Traced port not supported.
 - UNKNOWN INPUT = Input was not recognized.
- OK = Okay. May also include:
- SEE STATUS PAGE = All sub-addresses or IDs for the DN or MLHG have been traced. The results are displayed on the TRACEABLE CALL STATUS MCC Display Page.
- PF = Printout follows. May also include:
- EVENT n = The trace event (identified by the number 'n') has been accepted and is being processed. One or more TRC:UTIL output messages will follow.
- RL = Retry later. May also include:
- MSG = Unable to send the message that starts the trace.
 - TIMER = Unable to set a timer.
 - TRACE IN PROGRESS = A trace is currently in progress.

5. REFERENCES

Input Message(s):
OP:TRC

Output Message(s):
TRC:UTIL-4WLN
TRC:UTIL-CONF

TRC:UTIL-FAILED
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-LINE
TRC:UTIL-LINK
TRC:UTIL-PID
TRC:UTIL-TRK

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132	CALL TRACE MENU)
133-138	HARDWARE CALL TRACE - 1 THROUGH 6
139	ISDN PACKET SWITCH CALL TRACE
140	HARDWARE CALL TRACE
150	TRACEABLE CALL STATUS
151	CONFERENCE CIRCUIT TRACE

ID TRC:UTIL-C
RELEASE 5E17(1) only
COMMAND GROUP TRACE
APPLICATION 5

1. PURPOSE

Requests a utility call trace snapshot of the resources used by an in-progress call, and to update the hardware call trace Master Control Center (MCC) page with new trace data.

2. FORMAT

```
[1] TRC:UTIL:{DN=a|MLHG=b-c}[[,CH=r][,PKT]][,SA={o1|ALL}]] . . .
    . . .[,CID={n|ALL}]][,HARDHOLD]][,DDS=z]];
```

```
[2] TRC:UTIL:{LEN=d-e-f-g-h-i|SLEN=d-k-l-m|CKT=d-f1|TS=d-h1| . . .
    . . .LUCHAN=d-e-w-m1-n1]][,HARDHOLD]];
```

```
[3] TRC:UTIL:{TKGMN=b-c|DEN=d-a1-b1-c1]][,PKT]];
```

```
[4] TRC:UTIL:{PID=j-d-l1|TEN=d-v-w-x-y|NEN=d-e1-g1-b2-i1-c2-j1-k1| . . .
    . . .RAF=d-s-t|SAS=d-s-t}};
```

```
[5] TRC:UTIL:LCEN=d-e-w1-q[[,CH=r][,PKT]][,HARDHOLD]]];
```

```
[6] TRC:UTIL:LCKEN=d-x1-p-v1-y1[[,CH=r][,PKT]][,HARDHOLD]]];
```

```
[7] TRC:UTIL:ILEN=d-o-l-m[[,CH=r][,PKT]][,HARDHOLD]][,DDS=z]]];
```

```
[8] TRC:UTIL:PORT=d-d1[[,PKT]][,HARDHOLD]][,DDS=z]]];
```

```
[9] TRC:UTIL:BST=p1-q1[[,CH={D|B1}]]];
```

```
[10] TRC:UTIL:OPT=p1-q1[[,LOOP=u][,CH={D|B1}]]];
```

```
[11] TRC:UTIL:PSUEN=d-r1-s1-t1-u1];
```

```
[12] TRC:UTIL:INEN=d-e1-z1-a2[[,CH=r][,PKT]] . . .
    . . .[,HARDHOLD]][,DDS=z]]];
```

```
[13] TRC:UTIL:PLTEN=d-d2-e2-f2-c1];
```

```
[14] TRC:UTIL:OPCDPC=g2-h2-i2];
```

```
[15] TRC:UTIL:OIUEN=d-j2-k2-l2-m2-c2-j1-k1];
```

```
[16] TRC:UTIL:OIUUDP=d-j2-k2-n2-o2-p2];
```

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

HARDHOLD = Call trace request option for hardhold call. Default is non-hardhold utility call trace. Hardhold is an analog only feature.

PKT = Packet utility call trace request. Default is non-packet utility call trace.

a = DN of the line to be traced. If DN corresponds to a line time slot bridging (LTSB) port, call controller will be traced.

- b = Trunk or MLHG group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Trunk or MLHG member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Integrated services line number (ISLU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = Grid number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- g = Switch board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- h = Switch number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- i = Level number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- j = Process number of the PID.
- k = Digital carrier line unit (DCLU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- l = Remote terminal (RT) number or IDCU DS1 serving PUB43801 number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- m = RT line number or PUB43801 channel. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- n = ID number of call on DN or MLHG (0-31). When 'ALL' is specified, all calls for this DN or MLHG are listed in chronological order. This option can only be used on DNs or MLHGs on standard, non-electronic key telephone set (EKTS) DSLs.
- o = IDCU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- p = Line group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- q = Line card number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- r = Channel identifier. Valid value(s):
 - B1
 - B2
 - D (default)
- s = RAF or SAS unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- t = Announcement port number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- u = OPT operator call loop number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual. Defaults to active loop. Enter a zero to trace the active loop. This option can only be used with an OPT.
- v = Trunk unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- w = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

x	= Channel board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
y	= Circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
z	= DDS path identifier: 1 or 2, default to 0. For use with dual path DDS only.
a ¹	= Digital line and trunk unit (DLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
b ¹	= Digital facility interface (DFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
c ¹	= Channel number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
d ¹	= Port name (key of PORTLA). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
e ¹	= Digital networking unit - synchronous optical network (SONET) (DNU-S) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
f ¹	= Circuit name (key of CDBCOM). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
g ¹	= Data group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
h ¹	= Key of source time slot data block (TSDB) to be traced. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
i ¹	= Synchronous transport signal (STS) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
j ¹	= Virtual Tributary Member (VTM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
k ¹	= Digital signal level 0 (DS0) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
l ¹	= Uniqueness number of the PID.
m ¹	= Channel board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
n ¹	= Channel circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
o ¹	= SA number of DN or MLHG. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual. When 'ALL' is specified, all busy SAs of this DN or MLHG are listed. This option can only be used with a DN or MLHG that uses sub-addresses.
p ¹	= Operator service center (OSC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
q ¹	= Relative position number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
r ¹	= Packet switching unit (PSU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
s ¹	= PSU shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

t ¹	= PSU channel group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
u ¹	= PSU channel group member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
v ¹	= Line board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
w ¹	= Line group controller number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
x ¹	= Integrated service line unit 2 (ISLU2) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
y ¹	= Line circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
z ¹	= Remote digital terminal (RDT) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
a ²	= Line number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
b ²	= SONET terminal equipment (STE) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
c ²	= Virtual tributary group (VTG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
d ²	= PCT line and trunk (virtual) unit (PLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
e ²	= PCT facility interface (PCTFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
f ²	= The PCT tributary number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
g ²	= Bearer independent call control (BICC) origination point code (OPC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
h ²	= BICC destination point code (DPC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
i ²	= BICC raw call instance code (RCIC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
j ²	= Optical interface unit (OIU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
k ²	= Protection group (PG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
l ²	= OC-3 STE number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
m ²	= STS level 1 (STS-1). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
n ²	= Optical carrier - level 3 (OC3C) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
o ²	= Synchronous transport signal - level 3 (STS3C) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
p ²	= User datagram protocol (UDP) source port.

4. SYSTEM RESPONSE

- NG = No good. May also include:
- BAD CHANNEL = A channel type was specified on an analog line or a trunk.
 - BAD OPTION = Incompatible options were selected.
 - BAD SA/ID = A bad sub-address or ID number was specified.
 - CIRCUIT DESCRIPTOR = A bad universal tone decoder (UTD), universal tone generator (UTG), LUCHAN, or CKT input was specified.
 - IDLE SA/ID = The traced sub-address or ID was idle.
 - INTERNAL ERROR = Undetermined errors, possibly a software bug. Retry the request at a later time. This response may be accompanied by an assert.
 - NOT PRIMARY DN/MLHG = The traced DN or MLHG is not primary on any terminal. Either input the primary DN/MLHG of the terminal you wish to trace or specify an SA number for this DN/MLHG.
 - NOT PACKET = The PKT option was requested on a non-packet call.
 - PORT DESCRIPTOR = A bad DN, LEN, LCEN, SLEN, MLHG, TKGMN, TEN, DEN, or PORT description was specified.
 - REENTER DN WITH NPA = The office code (NXX), is in multiple numbering plan areas (NPA). Reenter the DN with an NPA.
 - SA/ID NOT ALLOWED = A sub-address or ID number was specified on a line that does not use them.
 - SM NOT OPERATIONAL = The SM where the trace should begin is not operational.
 - TRACE NOT SUPPORTED ON SPECIFIED PORT = Traced port not supported.
 - UNKNOWN INPUT = Input was not recognized.
- OK = Okay. May also include:
- SEE STATUS PAGE = All sub-addresses or IDs for the DN or MLHG have been traced. The results are displayed on the TRACEABLE CALL STATUS MCC Display Page.
- PF = Printout follows. May also include:
- EVENT n = The trace event (identified by the number 'n') has been accepted and is being processed. One or more TRC:UTIL output messages will follow.
- RL = Retry later. May also include:
- MSG = Unable to send the message that starts the trace.
 - TIMER = Unable to set a timer.
 - TRACE IN PROGRESS = A trace is currently in progress.

5. REFERENCES

Input Message(s):
OP:TRC

Output Message(s):
TRC:UTIL-4WLN
TRC:UTIL-CONF
TRC:UTIL-FAILED
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-LINE
TRC:UTIL-LINK
TRC:UTIL-PID
TRC:UTIL-TRK

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132	CALL TRACE MENU)
133-138	HARDWARE CALL TRACE - 1 THROUGH 6
139	ISDN PACKET SWITCH CALL TRACE
140	HARDWARE CALL TRACE
150	TRACEABLE CALL STATUS
151	CONFERENCE CIRCUIT TRACE

ID TRC:UTIL-D
RELEASE 5E18(1) - 5E19(1)
COMMAND GROUP TRACE
APPLICATION 5

1. PURPOSE

Requests a utility call trace snapshot of the resources used by an in-progress call, and to update the hardware call trace Master Control Center (MCC) page with new trace data.

2. FORMAT

```
[1] TRC:UTIL:{DN=a|MLHG=b-c}[[,CH=r][,PKT]][,SA={o1|ALL}]] . . .
    . . .[,CID={n|ALL}]][,HARDHOLD]][,DDS=z]];
```

```
[2] TRC:UTIL:{LEN=d-e-f-g-h-i|SLEN=d-k-l-m|CKT=d-f1|TS=d-h1| . . .
    . . .LUCHAN=d-e-w-m1-n1}}[,HARDHOLD]];
```

```
[3] TRC:UTIL:{TKGMN=b-c|DEN=d-a1-b1-c1}}[,PKT]];
```

```
[4] TRC:UTIL:{PID=j-d-l1|TEN=d-v-w-x-y|NEN=d-e1-g1-b2-j1-c2-j1-k1| . . .
    . . .RAF=d-s-t|SAS=d-s-t}};
```

```
[5] TRC:UTIL:LCEN=d-e-w1-q[[,CH=r][,PKT]][,HARDHOLD]]];
```

```
[6] TRC:UTIL:LCKEN=d-x1-p-v1-y1[[,CH=r][,PKT]][,HARDHOLD]]];
```

```
[7] TRC:UTIL:ILEN=d-o-l-m[[,CH=r][,PKT]][,HARDHOLD]][,DDS=z]]];
```

```
[8] TRC:UTIL:PORT=d-d1[[,PKT]][,HARDHOLD]][,DDS=z]]];
```

```
[9] TRC:UTIL:BST=p1-q1[[,CH={D|B1}]]];
```

```
[10] TRC:UTIL:OPT=p1-q1[[,LOOP=u][,CH={D|B1}]]];
```

```
[11] TRC:UTIL:PSUEN=d-r1-s1-t1-u1];
```

```
[12] TRC:UTIL:INEN=d-e1-z1-a2[[,CH=r][,PKT]]| . . .
    . . .[,HARDHOLD]][,DDS=z]]];
```

```
[13] TRC:UTIL:PLTEN=d-d2-e2-f2-c1];
```

```
[14] TRC:UTIL:OPCDPC=g2-h2-i2];
```

```
[15] TRC:UTIL:OIUEN=d-j2-k2-l2-m2-c2-j1-k1];
```

```
[16] TRC:UTIL:OIUUDP=d-j2-k2-n2-o2-p2];
```

```
[17] TRC:UTIL:LTAG=q2-r2-s2-t2-u2];
```

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

HARDHOLD = Call trace request option for hardhold call. Default is non-hardhold utility call trace. Hardhold is an analog only feature.

PKT = Packet utility call trace request. Default is non-packet utility call trace.

- a = DN of the line to be traced. If DN corresponds to a line time slot bridging (LTSB) port, call controller will be traced.
- b = Trunk or MLHG group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Trunk or MLHG member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Integrated services line number (ISLU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = Grid number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- g = Switch board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- h = Switch number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- i = Level number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- j = Process number of the PID.
- k = Digital carrier line unit (DCLU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- l = Remote terminal (RT) number or IDCU DS1 serving PUB43801 number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- m = RT line number or PUB43801 channel. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- n = ID number of call on DN or MLHG (0-31). When 'ALL' is specified, all calls for this DN or MLHG are listed in chronological order. This option can only be used on DNs or MLHGs on standard, non-electronic key telephone set (EKTS) DSLs.
- o = IDCU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- p = Line group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- q = Line card number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- r = Channel identifier. Valid value(s):
B1
B2
D (default)
- s = RAF or SAS unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- t = Announcement port number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- u = OPT operator call loop number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual. Defaults to active loop. Enter a zero to trace the active loop. This option can only be used with an OPT.
- v = Trunk unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

w	= Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
x	= Channel board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
y	= Circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
z	= DDS path identifier: 1 or 2, default to 0. For use with dual path DDS only.
a ¹	= Digital line and trunk unit (DLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
b ¹	= Digital facility interface (DFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
c ¹	= Channel number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
d ¹	= Port name (key of PORTLA). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
e ¹	= Digital networking unit - synchronous optical network (SONET) (DNU-S) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
f ¹	= Circuit name (key of CDBCOM). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
g ¹	= Data group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
h ¹	= Key of source time slot data block (TSDB) to be traced. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
i ¹	= Synchronous transport signal (STS) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
j ¹	= Virtual tributary member (VTM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
k ¹	= Digital signal level 0 (DS0) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
l ¹	= Uniqueness number of the PID.
m ¹	= Channel board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
n ¹	= Channel circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
o ¹	= SA number of DN or MLHG. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual. When 'ALL' is specified, all busy SAs of this DN or MLHG are listed. This option can only be used with a DN or MLHG that uses sub-addresses.
p ¹	= Operator service center (OSC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
q ¹	= Relative position number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
r ¹	= Packet switching unit (PSU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

s ¹	= PSU shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
t ¹	= PSU channel group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
u ¹	= PSU channel group member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
v ¹	= Line board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
w ¹	= Line group controller number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
x ¹	= Integrated service line unit 2 (ISLU2) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
y ¹	= Line circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
z ¹	= Remote digital terminal (RDT) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
a ²	= Line number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
b ²	= SONET terminal equipment (STE) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
c ²	= Virtual tributary group (VTG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
d ²	= PCT line and trunk (virtual) unit (PLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
e ²	= PCT facility interface (PCTFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
f ²	= The PCT tributary number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
g ²	= Bearer independent call control (BICC) origination point code (OPC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
h ²	= BICC destination point code (DPC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
i ²	= BICC raw call instance code (RCIC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
j ²	= Optical interface unit (OIU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
k ²	= Protection group (PG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
l ²	= OC-3 STE number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
m ²	= STS level 1 (STS-1). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
n ²	= Optical carrier - level 3 (OC3C) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
o ²	= Synchronous transport signal - level 3 (STS3C) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

p ²	= User datagram protocol (UDP) source port.
q ²	= Session initiation protocol (SIP) global SM (GSM) index.
r ²	= Processor group (PG).
s ²	= SIP call processing SM number.
t ²	= SIP map index (map IDX).
u ²	= SIP process number.

4. SYSTEM RESPONSE

NG	= No good. May also include: - BAD CHANNEL = A channel type was specified on an analog line or a trunk. - BAD OPTION = Incompatible options were selected. - BAD SA/ID = A bad sub-address or ID number was specified. - CIRCUIT DESCRIPTOR = A bad universal tone decoder (UTD), universal tone generator (UTG), LUCHAN, or CKT input was specified. - IDLE SA/ID = The traced sub-address or ID was idle. - INTERNAL ERROR = Undetermined errors, possibly a software bug. Retry the request at a later time. This response may be accompanied by an assert. - NOT PRIMARY DN/MLHG = The traced DN or MLHG is not primary on any terminal. Either input the primary DN/MLHG of the terminal you wish to trace or specify an SA number for this DN/MLHG. - NOT PACKET = The PKT option was requested on a non-packet call. - PORT DESCRIPTOR = A bad DN, LEN, LCEN, SLEN, MLHG, TKGMN, TEN, DEN, or PORT description was specified. - REENTER DN WITH NPA = The office code (NXX), is in multiple numbering plan areas (NPA). Reenter the DN with an NPA. - SA/ID NOT ALLOWED = A sub-address or ID number was specified on a line that does not use them. - SM NOT OPERATIONAL = The SM where the trace should begin is not operational. - TRACE NOT SUPPORTED ON SPECIFIED PORT = Traced port not supported. - UNKNOWN INPUT = Input was not recognized.
OK	= Okay. May also include: - SEE STATUS PAGE = All sub-addresses or IDs for the DN or MLHG have been traced. The results are displayed on the TRACEABLE CALL STATUS MCC Display Page.
PF	= Printout follows. May also include: - EVENT n = The trace event (identified by the number 'n') has been accepted and is being processed. One or more TRC:UTIL output messages will follow.
RL	= Retry later. May also include: - MSG = Unable to send the message that starts the trace. - TIMER = Unable to set a timer. - TRACE IN PROGRESS = A trace is currently in progress.

5. REFERENCES

Input Message(s):
OP:TRC

Output Message(s):
TRC:UTIL-4WLN
TRC:UTIL-CONF

TRC:UTIL-FAILED
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-LINE
TRC:UTIL-LINK
TRC:UTIL-PID
TRC:UTIL-TRK

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132	CALL TRACE MENU)
133-138	HARDWARE CALL TRACE - 1 THROUGH 6
139	ISDN PACKET SWITCH CALL TRACE
140	HARDWARE CALL TRACE
150	TRACEABLE CALL STATUS
151	CONFERENCE CIRCUIT TRACE

ID TRC:UTIL-E
RELEASE 5E20(1) and later
COMMAND GROUP TRACE
APPLICATION 5

1. PURPOSE

Requests a utility call trace snapshot of the resources used by an in-progress call, and to update the hardware call trace Master Control Center (MCC) page with new trace data.

2. FORMAT

```
[1] TRC:UTIL:{DN=a|MLHG=b-c}[[,CH=r][,PKT]][,SA={o1|ALL}]] . . .
    . . .[,CID={n|ALL}]][,HARDHOLD]][,DDS=z]];
```

```
[2] TRC:UTIL:{LEN=d-e-f-g-h-i|SLEN=d-k-l-m|CKT=d-f1|TS=d-h1| . . .
    . . .LUCHAN=d-e-w-m1-n1}}[,HARDHOLD]];
```

```
[3] TRC:UTIL:{TKGMN=b-c|DEN=d-a1-b1-c1}}[,PKT]];
```

```
[4] TRC:UTIL:{PID=j-d-l1|TEN=d-v-w-x-y|NEN=d-e1-g1-b2-i1-c2-j1-k1| . . .
    . . .RAF=d-s-t|SAS=d-s-t}};
```

```
[5] TRC:UTIL:LCEN=d-e-w1-q[[,CH=r][,PKT]][,HARDHOLD]]];
```

```
[6] TRC:UTIL:LCKEN=d-x1-p-v1-y1[[,CH=r][,PKT]][,HARDHOLD]]];
```

```
[7] TRC:UTIL:ILEN=d-o-l-m[[,CH=r][,PKT]][,HARDHOLD]][,DDS=z]]];
```

```
[8] TRC:UTIL:PORT=d-d1[[,PKT]][,HARDHOLD]][,DDS=z]]];
```

```
[9] TRC:UTIL:BST=p1-q1[[,CH={D|B1}]]];
```

```
[10] TRC:UTIL:OPT=p1-q1[[,LOOP=u][,CH={D|B1}]]];
```

```
[11] TRC:UTIL:PSUEN=d-r1-s1-t1-u1];
```

```
[12] TRC:UTIL:INEN=d-e1-z1-a2[[,CH=r][,PKT]]| . . .
    . . .[,HARDHOLD]][,DDS=z]]];
```

```
[13] TRC:UTIL:PLTEN=d-d2-e2-f2-c1];
```

```
[14] TRC:UTIL:OPCDPC=g2-h2-i2];
```

```
[15] TRC:UTIL:OIUEN=d-j2-k2-l2-m2-c2-j1-k1];
```

```
[16] TRC:UTIL:OIUUDP=d-j2-k2-n2-o2-p2];
```

```
[17] TRC:UTIL:LTAG=q2-r2-s2-t2-u2];
```

```
[18] TRC:UTIL:CHGPUDP=d-r1-s1-t1-p2];
```

```
[19] TRC:UTIL:NPHGPUDP=d-r1-v2-p2];
```

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

HARDHOLD	= Call trace request option for hardhold call. Default is non-hardhold utility call trace. Hardhold is an analog only feature.
PKT	= Packet utility call trace request. Default is non-packet utility call trace.
a	= DN of the line to be traced. If DN corresponds to a line time slot bridging (LTSB) port, call controller will be traced.
b	= Trunk or MLHG group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
c	= Trunk or MLHG member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
d	= Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
e	= Integrated services line number (ISLU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
f	= Grid number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
g	= Switch board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
h	= Switch number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
i	= Level number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
j	= Process number of the PID.
k	= Digital carrier line unit (DCLU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
l	= Remote terminal (RT) number or IDCU DS1 serving PUB43801 number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
m	= RT line number or PUB43801 channel. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
n	= ID number of call on DN or MLHG (0-31). When 'ALL' is specified, all calls for this DN or MLHG are listed in chronological order. This option can only be used on DNs or MLHGs on standard, non-electronic key telephone set (EKTS) DSLs.
o	= IDCU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
p	= Line group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
q	= Line card number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
r	= Channel identifier. Valid value(s): B1 B2 D (default)
s	= RAF or SAS unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
t	= Announcement port number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
u	= OPT operator call loop number. Refer to the APP:RANGES appendix in the Appendixes

section of the Input Messages manual. Defaults to active loop. Enter a zero to trace the active loop. This option can only be used with an OPT.

- v = Trunk unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- w = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- x = Channel board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- y = Circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- z = DDS path identifier: 1 or 2, default to 0. For use with dual path DDS only.
- a¹ = Digital line and trunk unit (DLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b¹ = Digital facility interface (DFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c¹ = Channel number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d¹ = Port name (key of PORTLA). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e¹ = Digital networking unit - synchronous optical network (SONET) (DNU-S) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f¹ = Circuit name (key of CDBCOM). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- g¹ = Data group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- h¹ = Key of source time slot data block (TSDB) to be traced. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- i¹ = Synchronous transport signal (STS) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- j¹ = Virtual tributary member (VTM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- k¹ = Digital signal level 0 (DS0) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- l¹ = Uniqueness number of the PID.
- m¹ = Channel board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- n¹ = Channel circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- o¹ = SA number of DN or MLHG. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual. When 'ALL' is specified, all busy SAs of this DN or MLHG are listed. This option can only be used with a DN or MLHG that uses sub-addresses.
- p¹ = Operator service center (OSC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

q ¹	= Relative position number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
r ¹	= Packet switching unit (PSU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
s ¹	= PSU shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
t ¹	= PSU channel group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
u ¹	= PSU channel group member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
v ¹	= Line board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
w ¹	= Line group controller number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
x ¹	= Integrated service line unit 2 (ISLU2) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
y ¹	= Line circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
z ¹	= Remote digital terminal (RDT) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
a ²	= Line number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
b ²	= SONET terminal equipment (STE) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
c ²	= Virtual tributary group (VTG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
d ²	= PCT line and trunk (virtual) unit (PLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
e ²	= PCT facility interface (PCTFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
f ²	= The PCT tributary number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
g ²	= Bearer independent call control (BICC) origination point code (OPC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
h ²	= BICC destination point code (DPC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
i ²	= BICC raw call instance code (RCIC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
j ²	= Optical interface unit (OIU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
k ²	= Protection group (PG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
l ²	= OC-3 STE number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
m ²	= STS level 1 (STS-1). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

n^2	= Optical carrier - level 3 (OC3C) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
o^2	= Synchronous transport signal - level 3 (STS3C) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
p^2	= User datagram protocol (UDP) source port.
q^2	= Session initiation protocol (SIP) global SM (GSM) index.
r^2	= Processor group (PG).
s^2	= SIP call processing SM number.
t^2	= SIP map index (map IDX).
u^2	= SIP process number.
v^2	= Network protocol handler (NPH) group number.

4. SYSTEM RESPONSE

NG	= No good. May also include: - BAD CHANNEL = A channel type was specified on an analog line or a trunk. - BAD OPTION = Incompatible options were selected. - BAD SA/ID = A bad sub-address or ID number was specified. - CIRCUIT DESCRIPTOR = A bad universal tone decoder (UTD), universal tone generator (UTG), LUCHAN, or CKT input was specified. - IDLE SA/ID = The traced sub-address or ID was idle. - INTERNAL ERROR = Undetermined errors, possibly a software bug. Retry the request at a later time. This response may be accompanied by an assert. - NOT PRIMARY DN/MLHG = The traced DN or MLHG is not primary on any terminal. Either input the primary DN/MLHG of the terminal you wish to trace or specify an SA number for this DN/MLHG. - NOT PACKET = The PKT option was requested on a non-packet call. - PORT DESCRIPTOR = A bad DN, LEN, LCEN, SLEN, MLHG, TKGMN, TEN, DEN, or PORT description was specified. - REENTER DN WITH NPA = The office code (NXX), is in multiple numbering plan areas (NPA). Reenter the DN with an NPA. - SA/ID NOT ALLOWED = A sub-address or ID number was specified on a line that does not use them. - SM NOT OPERATIONAL = The SM where the trace should begin is not operational. - TRACE NOT SUPPORTED ON SPECIFIED PORT = Traced port not supported. - UNKNOWN INPUT = Input was not recognized.
OK	= Okay. May also include: - SEE STATUS PAGE = All sub-addresses or IDs for the DN or MLHG have been traced. The results are displayed on the TRACEABLE CALL STATUS MCC Display Page.
PF	= Printout follows. May also include: - EVENT n = The trace event (identified by the number 'n') has been accepted and is being processed. One or more TRC:UTIL output messages will follow.
RL	= Retry later. May also include: - MSG = Unable to send the message that starts the trace. - TIMER = Unable to set a timer. - TRACE IN PROGRESS = A trace is currently in progress.

5. REFERENCES

Input Message(s):
OP:TRC

Output Message(s):
TRC:UTIL-4WLN
TRC:UTIL-CONF
TRC:UTIL-FAILED
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-LINE
TRC:UTIL-LINK
TRC:UTIL-PID
TRC:UTIL-TRK

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132	CALL TRACE MENU)
133-138	HARDWARE CALL TRACE - 1 THROUGH 6
139	ISDN PACKET SWITCH CALL TRACE
140	HARDWARE CALL TRACE
150	TRACEABLE CALL STATUS
151	CONFERENCE CIRCUIT TRACE

ID TST:ACPNUM
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests testing of the integrity of the common channel signaling (CCS) network and data consistency between the network control point (NCP) and the 5ESS[®] switch. In this case the switch is functioning as an action control point (ACP) for the software defined network (SDN) and leased network (LN) using the International Telecommunication Union - Telecommunication, Standardization Sector (ITU-TS) (formerly CCITT) standard transaction capability application part (TCAP) protocol.

2. FORMAT

TST:ACPNUM=a,APP=b,ANI=c[,DATARATE=d][,SID=e][,SGD=f];

3. EXPLANATION OF MESSAGE

- a = LN number to be tested. This number must be a string of seven or ten digits, and must fit the template NXXXXXXX or NPANXXXXXX.
- b = Feature application type. Valid value(s):
 - LN = Leased network.
 - SDN = Software defined network.
- c = Ten-digit automatic number identification (ANI) of the calling party, which must have the format NPANXXXXXX.
- d = Data rate used for integrated services digital network (ISDN) primary rate interface (ISDN-PRI) data call. Valid value(s):
 - VOICE = Voice (default).
 - 64KC = 64 KPS clear.
 - 64KR = 64 KPS restricted.
 - 56KC = 56 KPS.
- e = Station identification (SID) for an ISDN-PRI call. This number must have the format NPANXXXXXX.
- f = Station group designator (SGD), (0-8).

4. SYSTEM RESPONSE

- NG = No good. May also include:
 - CNI NOT OPERATIONAL = The test message cannot be sent. The common network interface (CNI) is not operational or is overloaded. Check CNI status and wait at least 10 minutes before requesting another test.
 - FAILED TO SEND TCAP MESSAGE = Unable to format query and send message out to the network.
 - INVALID INPUT FIELD = There is either an invalid character for variables 'a' or 'b' or an incorrect number of digits. You must input digits at variables 'a' and 'b'.
- PF = Printout follows. The request has been received. Followed by a TST:ACPNUM output message.
- RL = Retry later. May also include:

- TEST IN PROGRESS = A common channel signaling (CCS) test is currently in progress.

5. REFERENCES

Output Message(s):
TST:ACPNUM

Other Manual(s):
235-070-100 Administration and Engineering Guidelines

ID TST:AILS-OLS
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that an automated inward line screening (AILS) originating line screening (OLS) common channel signaling system 7 (CCS7) transaction capabilities application part (TCAP) test query be sent from a call serving Operator Service Position System (OSPS) to a normal serving site OSPS to gather AILS OLS data.

2. FORMAT

TST:AILS OLS,CLG=a,SV=b,DPC=c;

3. EXPLANATION OF MESSAGE

- a = Calling number. This is a 10-digit North American number plan (NANP) number.
- b = AILS software version number. The AILS software version number is used to indicate the current software level for the AILS feature. The AILS software version number is a number from 1 to 99.
- c = Destination point code. The destination point code is the point code of the normal serving site OSPS that will receive this AILS OLS test query. The destination point code is a 9-digit number.

4. SYSTEM RESPONSE

- NG = No good. May also include:
 - CNI NOT AVAILABLE = The test query cannot be sent to the CAS/NCP database because the common network interface (CNI) or CCS7 links are not available.
 - INVALID CALLING NUMBER = The calling number must be a 10-digit NANP number.
- PF = Printout follows. The request has been received. Output message TST:AILS-OLS will follow.
- RL = Retry later. May also include:
 - INTERNAL ERROR = There was a problem reading the RLDS_APP relation. Refer to RC/V View 8.17 for the subsystem number.
 - TEST IN PROGRESS = Another common channel signaling (CCS) test is in progress.

5. REFERENCES

Input Message(s):

EXC:DSTT
TST:BNS
TST:CAS
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE

Output Message(s):

EXC:DSTT

TST:AILS-OLS
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE

RC/V View(s):
8.17 (DIRECT SIGNALING APPLICATIONS)

ID TST:AILS-TCS
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that an automated inward line screening (AILS) terminating code screening (TCS) common channel signaling system 7 (CCS7) transaction capabilities application part (TCAP) test query be sent from a call serving Operator Service Position System (OSPS) to a normal serving site OSPS to gather AILS TCS data.

2. FORMAT

TST:AILS TCS,CLG=a{,CLD|,ICLD}=b[,SSCNUM=c],SV=d,DPC=e;

3. EXPLANATION OF MESSAGE

- a = Calling number. This is a 10-digit North American number plan (NANP) number.
b = Called number.

Prefix	Explanation
CLD=	This is a 10-digit directory number for a NANP called number.
ICLD=	This is a 1- to 3-digit international country code.

- c = Special services code (SSC) number. This is a 7-digit number (SSC-WXYZ) used for 800 access calls. If this entry is omitted, a default value of 0 (no SSC-WXYZ number) will be used.
d = AILS software version number. The AILS software version number is used to indicate the current software level for the AILS feature. The AILS software version number is a number from 1 to 99.
e = Destination point code. The destination point code is the point code of the normal serving site OSPS that will receive this AILS TCS test query. The destination point code is a 9-digit number.

4. SYSTEM RESPONSE

- NG = No good. Includes one of the following:
- CNI NOT AVAILABLE = The test query cannot be sent to the CAS/NCP database because the common network interface (CNI) or CCS7 links are not available.
 - INVALID CALLING NUMBER = The calling number must be a 10-digit NANP number.
 - INVALID CALLED NUMBER = The called number must be a 10-digit NANP number or a 1 to 3 digit international country code.
 - INVALID SSC-WXYZ NUMBER = The SSC number must be a 7-digit number.
- PF = Printout follows. The request has been received. The TST:AILS-TCS output message will follow.
- RL = Retry later. Includes one of the following:
- INTERNAL ERROR = There was a problem reading the RLDS_APP relation. Refer to RC/V View 8.17 for the subsystem number.
 - TEST IN PROGRESS = Another common channel signaling (CCS) test is in progress.

5. REFERENCES

Input Message(s):

EXC:DSTT
TST:AILS-OLS
TST:BNS
TST:CAS
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE

Output Message(s):

EXC:DSTT
TST:AILS-OLS
TST:AILS-TCS
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE

RC/V View(s):

8.17 (DIRECT SIGNALING APPLICATIONS)

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID TST:ALM
RELEASE 5E15 and later
COMMAND GROUP ALARM
APPLICATION 5

1. PURPOSE

Requests that the audible and visual alarm reporting mechanism be tested. This request does not test that a specific fault will actually cause an alarm. This will only verify that the audible and visual alarm devices are in working order.

Warning: Before starting this test, it is recommended that the user make sure all existing active alarms have been retired. Also note that when retiring the alarm generated by this input message, any other alarms that may have been activated during this testing will also be retired. Check the ROP and daylog for any real alarms that may have occurred during the test.

2. FORMAT

TST:ALM,LVL={CR|MJ|MN};

3. EXPLANATION OF MESSAGE

CR = Critical alarm level.

MJ = Major alarm level.

MN = Minor alarm level.

4. SYSTEM RESPONSE

PF = Followed by the TST:ALM output message.

5. REFERENCES

Input Message(s):

CLR:ALARMS

CLR:LAMPS

Output Message(s):

TST:ALM

ID TST:ASP
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that an R0 advanced services platform (ASP) test query verifying integrity be sent to the external service control point (SCP) database. This will be sent using the service switching point (SSP) of the network and the contents of the routing information returned from the SCP.

2. FORMAT

TST:ASP[,TESTDN=a],ANI=b,SKEY=c,LATA=d[,CID=e][,CARSEL=f]
[,NON=g][,CICEI=h][,OPC=i][,PLATFORM=j];

3. EXPLANATION OF MESSAGE

- a = The dialed ASP number. If called party (DIALED_NUM) is the service key then this field must be 10 digits, otherwise it can be any number of digits.
- b = Automatic number identification (ANI) of the calling party. If calling ANI is the service key then this field must be 10 digits, otherwise it can be any number of digits.
- c = The service key field. Valid value(s):
ANI = Automatic number identification.
DIALED_NUM = Dialed number or testdn.
- d = Three-digit absolute local access and transport area (LATA) number (100-999).
- e = A 3-digit or 4-digit feature group D (FGD) carrier identification which is either the "XXX" or "XXXX" digits contained in either the "10XXX" or "101XXXX" digits in sequence dialed by the caller or carrier code assigned to the caller as presubscribed inter-exchange carrier (PIC) information.
- f = Carrier selection. Indicates whether digits (carrier identification) information dialed, is equal to the caller's presubscribed carrier information, or indicates the lack of this information. Valid value(s):
CALLER = No presubscribed carrier input by caller.
PIC = Presubscribed carrier not input by caller.
PICIND = Presubscribed carrier origination unknown.
PICMTCH = Presubscribed carrier input by caller.
UNKN = Unknown.
- g = Nature of number. Specifies the format of the address digits for subscribed triggers using the ASP dialing plan. Valid value(s):
IECOPR = Inter exchange carrier operator.
INTER = International.
INTOPR = International operator.
LECOPR = Local exchange carrier operator.
NAP = Not applicable.
NAT = National.
NETWK = Network specific.
- h = CIC expansion indicator (Y or N). Indicates whether the CIC expansion parameter should be sent in the test query. If not specified the value is taken from the Gltcapic office parameter.
- i = Origination point code consisting of a nine digit character string. Refer to the

APP:POINT-CODE appendix in the Appendixes section of the Input Messages manual.
Note: this option is mandatory in a multi-platform office.

j = Signaling Platform. Valid value(s):
0 = Common Network Interface (CNI) Platform
1 - 192 = Global Switching Module (GSM) Number

Note: this option is mandatory in a multi-platform office.

4. SYSTEM RESPONSE

NG = No good. Valid value(s):

- CCS MESSAGE TRANSPORT PATH UNAVAILABLE = SS7 PSU signaling links are not available.
- CNI NOT AVAILABLE = The test message can not be sent because the common network interface (CNI) is not operational or is overloaded. Check CNI status and wait at least 10 seconds before requesting another test.
- FAILED TO SEND TCAP MESSAGE = Unable to format query and send message out to network
- GSM/PROTOCOL MISMATCH = The GSM and the protocol do not match, missing or incorrect data.
- INVALID INPUT IN FIELD = There is either an invalid character in the numeric variables 'a', 'b', 'c', or 'd' or an incorrect number of digits.
- MISSING INPUT FOR FIELD = There is a missing field for variables 'e', 'f' or 'g'.
- MUST ENTER OPC = The origination point code must be specified as part of the input message line because either there are multiple global switch modules (GSM) in the office or the office is equipped with both common network interface (CNI) and packet switch unit (PSU) platforms.
- MUST ENTER PLATFORM = The signaling platform must be specified as part of the input message line because either there are multiple global switch modules (GSM) in the office or the office is equipped with both common network interface (CNI) and packet switch unit (PSU) platforms.
- NO GLOBAL SM IN OFFICE = The office is not equipped with any GSMs.
- NO SS7 IN OFFICE = The office is not equipped with signaling system 7 (SS7) platform.
- OPC IS INVALID = The entered digits are either invalid, the number of digits entered is incorrect, or the point code was not provisioned in the office.
- OPC IS NOT AVAILABLE = Could not get the point code. There was missing or incorrect data.
- OPC NOT ON PLATFORM = Could not find the point code on the platform entered.
- PLATFORM IS INVALID = The entered signaling platform is either invalid or the platform entered is not provisioned in the office.

NO = The feature is not allowed. Valid value(s):

- CARRIER ID FIELD NOT ALLOWED = Carrier ID enhancement not authorized in this office. Do not include this field.
- CARRIER SELECTION FIELD NOT ALLOWED = Carrier selection enhancement not authorized in this office. Do not include this field.
- FEATURE NOT AVAILABLE = ASP must be purchased before attempting to send a test query.
- NATURE OF NUMBER FIELD NOT ALLOWED = Nature of number enhancement not authorized in the office. Do not include this field.

PF = Printout follows. The request has been received. Followed by a TST:ASP output message.

RL = Retry later. Valid value(s):

- OVERLOAD CONDITION IN CCS MESSAGE TRANSPORT PATH = SS7 PSU signaling links are congested.
- TEST IN PROGRESS = A test query is currently in progress.

5. REFERENCES

Input Message(s):
TST:NS800

Output Message(s):
TST:ASP
TST:NS800

Other Manual(s):

235-200-115 *CNI Common Channel Signaling*
235-200-116 *Signaling Gateway Common Channel Signaling*

MCC Display Page(s):
118 (CNI STATUS)

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID TST:ASPTQ
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests sending an advanced services platform (ASP) 0.1 test message to the service control point (SCP). If a response to format one is received from the SCP, the output is divided into two parts for display purposes [routing and automatic message accounting (AMA) billing]. The portion (routing or billing) of the response to display may be specified.

Format two is only for number portability. The only message type valid for this format is NPINFOANAL (information analyzed for number portability). It is used to verify whether a called party (CLDPTY) directory number (DN) is ported and the response to format two will display its location routing number if ported or, if not ported, will say it's not ported and echo back the specified CLDPTY.

Warning: *Using format two of this input message will effectively do a clear of any information analyzed (INFOANAL) parameter settings previously set using the SET:ASPTQ input message except for TRANTYPE, OPC, and TIMER. Using format two of this message will set number portability default values for the bearer capability and trigger type parameters and will set the called party ID, user ID directory number, and global title address parameters based on the called party value (CLDPTY=c) on the command line. If TRANTYPE is included on the command line, the command line value for TRANTYPE will over write any previous setting of TRANTYPE using the SET:ASPTQ input message. Use OP:ASPTQ,MSGTYPE=INFOANAL before using this command to see what currently set values may be lost by executing this command. Use OP:ASPTQ,MSGTYPE=INFOANAL after using this command to see what parameters were used in the query.*

2. FORMAT

[1] TST:ASPTQ,MSGTYPE=a[,MSGPART=b];
[2] TST:ASPTQ,MSGTYPE=NPINFOANAL,CLDPTY=c[,TRANTYPE=d][,OPC=e][,PLATFORM=f];

3. EXPLANATION OF MESSAGE

a = The type of message to send to the SCP. Valid value(s):

CLOSE	= Close. The CLOSE message type is used to close the transaction with the SCP, and is typically used after sending the final notification message or in place of a request message to indicate caller abandon or an abnormal situation.
INFOANAL	= Information analyzed.
INFOCOLL	= Information collected.
NTWKBSY	= Network Busy. It is a request for the SCP to respond with further routing information. It can be sent as an event detection point request (EDP-R) message as a result of event detection when the SCP requests an NEL that specifies a busy event (the transaction remains open with the SCP).
OANSWER	= Originating answer. It is a notification used to notify the SCP of call processing progress. The SCP is not expected to respond to notification messages, and the transaction with the SCP remains open.

Note: Multiple notification messages may be requested by the user (for example, OTERMSZD followed by OANSWER).

OCLDPTYBSY = Originating called party busy. It is a request for the SCP to respond with further routing informations. It can be sent either as a trigger detection point request (TDP-R) message resulting due to trigger events detection (which opens a transaction with SCP) or event detection point request (EDP-R) message as a result of event detection when the SCP requests an NEL that specifies a busy event (the transaction remains open with the SCP).

ODISCONNECT = Originating disconnect. This is a request for the SCP to respond with further routing information. It would be sent as an EDP-R message as a result of event detection when the SCP requests an NEL that specifies an originating disconnect. The transaction with the SCP remains open.

ODTMFENTRD = Originating DTMF (Dial Tone Multi-Frequency) entered. This is a request for the SCP to respond with further routing information. It would be sent as an EDP-R message as a result of event detection when the SCP requests an NEL that specifies an originating DTMF entered event. The transaction with the SCP remains open.

ONOANSWER = Originating no answer. It is a request for the SCP to respond with further routing informations. It can be sent either as a TDP-R message resulting due to trigger events detection (which opens a transaction with SCP) or EDP-R message as a result of event detection when the SCP requests an NEL that specifies a no answer (the transaction remains open with the SCP).

ORIGAT = Origination attempt.

OTERMSZD = Originating termination seized. It is a notification used to notify the SCP of call processing progress. The SCP is not expected to respond to notification messages, and the transaction with the SCP remains open.

RESCLR = Resource clear.

TANSWER = Terminating answer. It is a notification used to notify the SCP of call processing progress. The SCP is not expected to respond to notification messages, and the transaction with the SCP remains open.

TBUSY = Terminating busy. It is a request for the SCP to respond with further routing information. It can be sent either as a TDP-R message resulting due to trigger events detection (which opens a transaction with SCP) or EDP-R message as a result of event detection when the SCP requests a NEL that specifies a busy event (the transaction remains open with the SCP).

TERMAT = Termination attempt.

TNOANSWER = Terminating no answer. It is a request for the SCP to respond with further routing information. It can be sent either as a TDP-R message resulting due to trigger events detection (which opens a transaction with SCP) or EDP-R message as a result of event detection when the SCP requests a NEL that specifies a terminating no answer (the transaction remains open with the SCP).

TRMRSRCVL = Terminating resource available. It is a notification used to notify the SCP of call processing progress. The SCP is not expected to respond to notification messages, and the transaction with the SCP remains open.

b = The portion of the response message to display. The default is both. The routing portion of the message is always displayed when a SEND TO RESOURCE message is received. This allows information concerning possible subsequent actions to be displayed (that is, number of digits to collect). Valid value(s):

AMA = AMA billing part of the response message.

RTE = Routing part of the response message.

BOTH = Both the AMA billing and routing part of the response message.

c = Called party ID digits (10 digit DN required).

d = Translation type (range of 0-255).

e = Origination point code consisting of a nine digit character string. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Input Messages manual.

- f = Signaling Platform. Valid value(s):
- 0 = Common Network Interface (CNI) Platform
 - 1 - 192 = Global Switching Module (GSM) Number

Note: this option is mandatory in a multi-platform office.

4. SYSTEM RESPONSE

- NG = No good. May also include:
- CCS MESSAGE TRANSPORT PATH UNAVAILABLE = SS7 PSU signaling links are not available.
 - CLDPTY IS MANDATORY - INCLUDE CLDPTY = The called party ID parameter is mandatory for the requested message. Include the parameter on the command line of the TST:ASPTQ input message.
 - CLEAR CAUSE IS MANDATORY, SET CLEAR CAUSE = The clear cause parameter is mandatory for the requested message. Set the parameter with the SET:ASPTQ input message before requesting the test again.
 - CONVERSATION NOT IN PROGRESS = A transaction is not open. The resource clear message is only allowed in response to receiving a send to resource conversation message.
 - GSM/PROTOCOL MISMATCH = The global switch module (GSM) and the protocol do not match, missing or incorrect data.
 - INVALID PARAMETER USED = One or more of the options for format two (message type of NPINFOANAL) were used with format one (a message type other than NPINFOANAL).
 - NEXT EVENT LIST NOT IN PROGRESS = A next event list is not in progress. The close, originating answer, Network Busy, and originating termination seized messages are only allowed in response to receiving either an analyze route or forward call conversation message which contains a next event list component.
 - NO GLOBAL SM IN OFFICE = The office is not equipped with any GSMs.
 - NO SS7 IN OFFICE = The office is not equipped with signaling system 7 (SS7) platform.
 - OPC IS INVALID = The entered digits are either invalid (0-9 are allowed), the number of digits entered is incorrect (there must be nine digits), or the point code was not provisioned in the office.
 - OPC IS NOT AVAILABLE = Couldn't get the point code, missing or incorrect data.
 - OPC IS MANDATORY - INCLUDE OR SET OPC = The origination point code parameter is mandatory for the requested message. The origination point code parameter has not been included or cannot be determined because the office has multiple GSMs or is equipped with both common network interface (CNI) and packet switch unit (PSU) platforms. Set the parameter with the SET:ASPTQ input message before requesting the test again or include the parameter on the TST:ASPTQ input message for number portability.
 - OPC NOT ON PLATFORM = Could not find the point code on the platform entered.
 - PLATFORM IS INVALID = The entered signaling platform is either invalid or the platform entered is not provisioned in the office.
 - PLATFORM IS MANDATORY - INCLUDE OR SET PLATFORM = The signaling platform is mandatory for the requested message. The signaling platform has not been included or cannot be determined because the office has multiple global switch modules (GSMs) or the office is equipped with both common network interface (CNI) and packet switch unit (PSU) platforms. Set the parameter with the SET:ASPTQ input message before requesting the test again or include the parameter on the TST:ASPTQ input message for number portability.

- USERID AND BEARCAP ARE MANDATORY - SET BEARCAP = The user ID and bearer capability parameters are mandatory for the requested message. The bearer capability parameter has not been set. Set the parameter with the SET:ASPTQ input message before requesting the test again.
- USERID AND BEARCAP ARE MANDATORY - SET USERID = The user ID and bearer capability parameters are mandatory for the requested message. The user ID parameter has not been set. Set the parameter with the SET:ASPTQ input message before requesting the test again.
- USERID, BEARCAP, AND GLOBTITLE ARE MANDATORY - SET BEARCAP = The user ID, bearer capability, and the global title address parameters are mandatory for the requested message. The bearer capability parameter has not been set. Set the parameter with the SET:ASPTQ input message before requesting the test again.
- USERID, BEARCAP, AND GLOBTITLE ARE MANDATORY - SET GLOBTITLE = The user ID, bearer capability, and the global title address parameters are mandatory for the requested message. The global title address parameter has not been set. Set the parameter with the SET:ASPTQ input message before requesting the test again.
- USERID, BEARCAP, AND GLOBTITLE ARE MANDATORY - SET USERID = The user ID, bearer capability, and the global title address parameters are mandatory for the requested message. The user ID parameter has not been set. Set the parameter with the SET:ASPTQ input message before requesting the test again.
- USERID, BEARCAP, GLOBTITLE, AND OPC ARE MANDATORY - SET OPC = The origination point code parameter is mandatory for the requested message. The origination point code parameter has not been set or cannot be determined because the office has multiple GSMs or is equipped with both common network interface (CNI) and packet switch unit (PSU) platforms. Set the parameter with the SET:ASPTQ input message before requesting the test again.

NO = The request is not allowed. Valid value(s):

- FEATURE NOT AVAILABLE = The feature associated with the requested functionality must be purchased before attempting to send the particular test query. All ASP 0.1 test queries require that the ASP 0.1 feature must be purchased. In addition, the number portability test query (format two) requires the purchase of the Number Portability - Test Query for LRN feature.

OK = Good. The request was accepted.

PF = Printout follows. Followed by an TST:ASPTQ-AMA, TST:ASPTQ-FAIL, and/or TST:ASPTQ output message.

RL = Retry later. May also include:

- FAILED TO SEND TCAP MESSAGE = Unable to send a message. Retry the test later.
- OVERLOAD CONDITION IN CCS MESSAGE TRANSPORT PATH = SS7 PSU signaling links are congested.
- SM IS NOT AVAILABLE = A switching module is not available (not operational or overloaded). Request the test again after the SMs become available.
- TEST IN PROGRESS = Another test query is currently in progress. Wait for that test query transaction to complete before requesting another test.

5. REFERENCES

Input Message(s):

SET:ASPTQ
CLR:ASPTQ
OP:ASPTQ

Output Message(s):

TST:ASPTQ

TST:ASPTQ-AMA

TST:ASPTQ-FAIL

TST:ASPTQ-NP

Other Manual(s):

235-190-126 *Advanced Services Platform Release 0.1B*

ID TST:AT1
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that an ANSI¹ transaction capabilities application part (TCAP) Type I test query be sent to a billing validation database to verify its operation.

2. FORMAT

TST:AT1,CCRD=a-b-c,{CLG|ICLG}=d,TTYP=e[,CICEXP][,{CLD|ICLD}=f];

3. EXPLANATION OF MESSAGE

- CICEXP = Carrier identification code (CIC) expansion indicator - presence of this keyword indicates that the CIC sent by the database in the response message should be in the 4-digit format. Absence of the keyword indicates that the CIC should contain 3 digits. Note that currently the CIC is not used by Operator Services Position System (OSPS); therefore, there is no CIC in the test output message TST:AT1.
- a = Issuer identification number of the telecommunications calling card (89C) or commercial credit card (CCC) number to be queried. This field will be 2 to 7 digits in length (enter the full card number).
- b = Individual account number of the 89C or CCC card to be queried. This includes a check number, if required. This field will be a maximum of 15 digits; however, this field together with the issuer identification number will be 7 to 19 digits in length.
- c = The 4-digit personal identification number (PIN) of the credit card to be queried.
- d = The calling number, also known as the automatic number identification (ANI), or the back number.

Prefix:	Explanation:
CLG=	This is a 10-digit directory number for a North American numbering plan (NANP) calling number.
ICLG=	This is a 1- to 3-digit international country code or a 4- to 15-digit full international number for an international calling number.

- e = Translation type. The translation type is used in the TCAP query to indicate to the signaling transfer point (STP) which translation tables should be used to obtain routing information for the query. The translation type is a number from 0 to 255.
- f = The called number.

Prefix:	Explanation:
CLD=	This is a 10-digit directory number for a NANP called number. Note that 411 and other N11 numbers must be entered as N110000000.
ICLD=	This is a 1- to 3-digit international country code or a 4- to 15-digit full international number for an international called number.

1. Registered trademark of American National Standards Institute.

4. SYSTEM RESPONSE

- NG = No good. Includes one of the following:
- CNI NOT AVAILABLE = The query request cannot be sent to the billing validation data base because the common network interface (CNI) is not available.
 - FEATURE NOT AVAILABLE = The requested action failed. The feature required to process the request is not present in the switch or the given module.
 - INCOMPATIBLE ICLG AND CLD NUMBERS = The international calling number is incompatible with a NANP called number of 4110000000. Specify the NANP called number as NPA-555-1212.
 - INTERNAL ERROR = There is an internal error with the query format.
 - INVALID CARD NUMBER = The input card number must be at least 7 digits, and at most 19 digits in length. The card number is composed of the issuer identification number and the individual account number (including the check number).
 - INVALID CLD NUMBER = The called number is invalid. The NANP called number must be a 10-digit directory number.
 - INVALID CLG NUMBER = The calling number is invalid. The NANP calling number must be a 10-digit directory number.
 - INVALID ISSUER ID NUMBER = The issuer identification number must be at least 2 digits, and at most 7 digits in length.
 - INVALID PIN = The PIN must be 4 digits in length.
 - INVALID TRANSLATION TYPE = The translation type must be a number from 0 to 255.
- PF = Printout follows. The request has been received. Output message TST:AT1 follows.
- RL = Retry later. Includes the following:
- TEST IN PROGRESS = Another common channel signaling (CCS) test is in progress.

5. REFERENCES

Input Message(s):

EXC:DSTT
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE

Output Message(s):

EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:LIDB-BNS
TST:LIDB-CCRD
TST:NCD
TST:RATE

ID TST:BNS
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that a billed number screening (BNS) query be sent to the billing validation application (BVA), the line information database (LIDB), or the LIDB alternate destination (LALT) to verify its operation.

2. FORMAT

```
[1]    TST:BNS=a[-BVA];
[2]    TST:BNS=a-LIDB[{CLG|ICLG}=b][,{CLD|ICLD}=c,CICEXP];
[3]    TST:BNS=a-LALT[{CLG|ICLG}=b][,{CLD|ICLD}=c][,OLS=d][,OST=e][,CT=f]
        [,CICEXP];
```

3. EXPLANATION OF MESSAGE

CICEXP = Carrier identification code (CIC) expansion indicator - presence of this keyword indicates that the CIC sent by LIDB in the response message should be in the 4-digit format. Absence of the keyword indicates that the CIC should contain 3 digits. Note that currently the CIC could be sent by LIDB but it is not used by Operator Services Position System (OSPS) therefore there is no CIC in the test output message TST:LIDB-BNS.

a = 10-digit billing number to be queried in the form NPANXXXXXX.

b = Calling number, also known as the automatic number identification (ANI), or the back number.

Prefix:	Explanation:
CLG=	This is a 10-digit directory number for a North American numbering plan (NANP) calling number.
ICLG=	This is a 1- to 3-digit international country code or a 4- to 15-digit full international number for an international calling number.

c = Called number.

Prefix:	Explanation:
CLD=	This is a 3 to 10-digit directory number for a NANP called number. Note that 411 and other N11 numbers can be entered as N11000000.
ICLD=	This is a 1- to 3-digit international country code or a 4- to 15-digit full international number for an international called number.

d = Originating line screening (OLS) code. Valid range is 1 - 999. If this entry is omitted, a default value of 0 (no OLS) is used.

e = Originating station type (OST). Valid value(s):

ACQS = Other ACQS station.
ACQSHOTL = Automatic charge quotation service (ACQS) hotel station.
CNPRE = Pre-paid coin station.
CNPST = Post-paid coin station.
NAHOTL = Non-ACQS hotel.
NCNPUB = Non-coin public station.
OTHER = Other station.

UNKN = Unknown station.

f = Call type (CT). This is the type of call, collect, bill to third, or none. Valid value(s):

COLLECT = Collect.
NONE = No call type (default).
PAID = Sent-paid.
THIRD = Bill to third.

4. SYSTEM RESPONSE

NG = No good. Includes one of the following:

- CICEXP ALLOWED ONLY FOR LIDB AND LALT = The carrier identification code expansion indicator may only be used if LIDB translation capabilities application part (TCAP) interface is the protocol used to access the database.
- CLD/ICLD NOT ALLOWED FOR BVA = The called number may not be specified if the database is specified as BVA.
- CLG/ICLG NOT ALLOWED FOR BVA = The calling number may not be specified if the database is specified as BVA.
- CNI NOT AVAILABLE = The query test cannot be sent to the BVA, LIDB, or LALT database because the common network interface (CNI) is not available.
- CT ALLOWED ONLY FOR LALT = The call type may only be specified if the database is specified as LALT.
- FEATURE NOT AVAILABLE = The requested action failed. The feature required to process the request is not present in the switch or the given module.
- INCOMPATIBLE ICLG AND CLD NUMBERS = The international calling number is incompatible with a NANP called number of 4110000000 or 411. Specify the NANP called number as NPA-555-1212.
- INTERNAL ERROR = There is an internal error with the LIDB query format.
- INVALID CLD NUMBER = The called number is invalid. The NANP called number must be a 10-digit directory number.
- INVALID CLG NUMBER = The calling number is invalid. The NANP calling number must be a 10-digit directory number.
- INVALID INPUT = The billing number must be ten digits.
- OLS ALLOWED ONLY FOR LALT = The OLS may only be specified if the database is specified as LALT.
- OLS RANGE IS 1 - 999 = The valid range for the OLS is 1 to 999, inclusive.
- OST ALLOWED ONLY FOR LALT = The OST may only be specified if the database is specified as LALT.

PF = Printout follows. The request has been received. If BVA was specified, output message TST:BNS follows. If LIDB or LALT was specified, output message TST:LIDB-BNS follows.

RL = Retry later. Includes one of the following:

- CNI/DLN PROBLEM = The test message cannot be sent - CNI is in overload or no active direct link node (DLN) is available.
- TEST IN PROGRESS = Another common channel signaling (CCS) test is in progress.
- TOO MANY QUERIES RUNNING = No BNS query IDs are available.

5. REFERENCES

Input Message(s):
EXC:DSTT
TST:AT1
TST:CAS
TST:CAS7
TST:CCRD

TST:ICCV
TST:INWATS
TST:NCD
TST:RATE

Output Message(s):

EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:LIDB-BNS
TST:LIDB-CCRD
TST:NCD
TST:RATE

ID TST:BTSR
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Invokes the bootstrapper board (BTSR) resident diagnostic.

2. FORMAT

TST:BTSR=a;

3. EXPLANATION OF MESSAGE

a = Switching module (SM) number

4. SYSTEM RESPONSE

NG = No good. The request has been denied. The message form is valid, but the request conflicts with current status.

PF = Printout follows. The request was accepted. Followed by a TST:BTSR output message.

5. REFERENCES

Output Message(s):
TST:BTSR

ID TST:CAS7
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that a customer account services (CAS) Common Channel Signaling System 7 (CCS7) transaction capabilities application part (TCAP) test query be sent to the CAS/network control point (NCP) or gateway/NCP data base to verify its operation.

2. FORMAT

TST:CAS7=a-b-c,TTYP=d[, {CLD|ICLD}=e][,SRV=f][, {CLG|ICLG}=g][,SDC=h][,CTYP=i];

3. EXPLANATION OF MESSAGE

- a = Issuer identification number of the telecommunications calling card (89C) or commercial credit card (CCC) number to be queried. This field will be 2-7 digits in length (enter the full card number).
- b = Individual account number of the 89C or CCC card to be queried. This includes a check number, if required. This field will be a maximum of 15 digits; however, this field together with the issuer identification number will be 7-19 digits in length.
- c = Personal identification number (PIN). The PIN can be a maximum of 13 digits. If no PIN exists for the card, enter 0.
- d = Translation type. The translation type is used in the TCAP query to indicate to the signaling transfer point (STP) which translation tables should be used to obtain routing information for the query. The translation type is a number from 0 to 255.
- e = Called number. For international numbers, use the ICLD= label with a 1- to 15-digit international number. For North American numbering plan (NANP) numbers use the CLD= label with a 10-digit phone number. For queries with no called number, this is 0. If this entry is omitted, a default value of 0 (no called number) will be used. Note that 411 and other N11 numbers must be entered as N110000000. Note also that customer-initiated card calls to 411 contain LOCAL NPA-555-1212 as the called number in the card query to the NCP. Test queries need LOCAL NPA-555-1212 explicitly specified. A called number may not be entered if a speed dial code (SDC) is also entered.
- f = CAS service specifier. The CAS service specifier is used in the CCS7 TCAP query to indicate the type of query associated with the call. Valid value(s):
 - IVI = For inward queries.
 - NORMAL = For other queries (standard card validation).
 - RQV = For rate quote queries.
 - SDAP = For speed dial auto provisioning (SDAP) queries.
 - Note If this field is omitted, the default value NORMAL will be used.
- g = Calling number. This is either a 10-digit NANP number, a 1-to 3-digit international country code, or a 7-digit DIOR number. If this entry is omitted, no calling number will be used. For international numbers, use the ICLG= label with a 4- to 15-digit international number. For NANP numbers use the CLG= label with a 10-digit phone number.
- h = Speed dial code. This is a one to three digit number that may not begin with 0. A speed dial code may not be entered if a called (CLD) number is also entered.
- i = Card type. This is required if the sum of the lengths of the issuer identification number, individual account number, and PIN is 14. The card type is prohibited if the entered card number length is not 14. Valid value(s):

CIID = Carrier issuer identifier card.
INIT = AT&T 14 digit *True Choice*¹ calling card, initial call.
SEQ = AT&T 14 digit *True Choice* calling card, sequence call.

4. SYSTEM RESPONSE

- NG = No good. May also include:
- CNI NOT AVAILABLE = The test query cannot be sent to the CAS/NCP database because the common network interface (CNI) or CCS7 links are not available.
 - CTYP ONLY ACCEPTED WITH 14 DIGIT CARD NUMBER = A card type value can only be entered when the sum of the lengths of the issuer identification number, individual account number, and PIN is 14 digits.
 - CTYP REQUIRED WITH 14 DIGIT CARD NUMBER = When the sum of the lengths of the issuer identification number, individual account number, and PIN is 14 digits, a card type value must be entered.
 - FEATURE NOT AVAILABLE = The requested action failed. The feature required to process the request is not present in the switch or the given module.
 - INVALID CLD NUMBER = The called number must be a 10-digit NANP number.
 - INVALID ICLD NUMBER = The international called number must be a 4- to 15-digit international number.
 - INVALID CALLING NUMBER = The calling number must be a 10-digit NANP number, a 1- to 3-digit international country code, or 0.
 - INVALID CARD NUMBER = The input card number must be at least 7 digits, and at most 19 digits in length. The card number is composed of the issuer identification number and the individual account number (including the check number).

If a 14-digit card number is entered and the card type is either INIT or SEQ, then the first and fourth digits must be 2 or higher.
 - INVALID ISSUER ID NUMBER = The issuer identification number must be at least 2 digits, and at most 7 digits in length.
 - INVALID PIN OR EXPIRATION DATE = The PIN or EXPIRATION DATE must be at most 13 digits in length.
 - INVALID SERVICE SPECIFIER = Invalid specifier. May also include:
 - 6 = For rate quote query.
 - IVI = For inward query.
 - NORMAL = For standard card validation.
 - SDAP = For SDAP query.
 - INVALID SPEED CODE = The speed dial code must be from one to three digits and may not begin with 0.
 - INVALID TRANSLATION TYPE = The translation type must be a number from 0 to 255.
 - SDC NOT ALLOWED WITH CLD = A speed dial code may not be entered if a called number is also entered.
- PF = Printout follows. The request has been received. Output message TST:CAS7 will follow.
- RL = Retry later. May also include:
- INTERNAL ERROR = There was a problem reading the RLDS_APP relation (Recent Change/Verify View 8.17), to obtain the subsystem number.
 - TEST IN PROGRESS = Another common channel signaling (CCS) test is in progress.

1. Trademark of AT&T.

5. REFERENCES

Input Message(s):

EXC:DSTT
TST:BNS
TST:CAS
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE

Output Message(s):

EXC:DSTT
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE
TST:SDAP

RC/V View(s):

8.17 (DIRECT SIGNALING APPLICATIONS)

ID TST:CAS
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that a customer account services (CAS) query be sent to the CAS/network control point (NCP) data base to verify its operation.

2. FORMAT

TST:CAS=a[-b];

3. EXPLANATION OF MESSAGE

- a = The 14-digit CAS account number to be queried (consists of a 10-digit individual account number plus a 4-digit personal identification number (PIN)).
- b = The called number. For a domestic call this is a 10-digit directory number. For an international call this is a 1- to 3-digit international country code. For queries with no called number, this is 0. If this entry is omitted, a default value of 0 (no called number) will be used. Note that 411 and other N11 numbers must be entered as N110000000 in order to distinguish the N11 number from a 3-digit international country code.

4. SYSTEM RESPONSE

- NG = No good. May also include:
 - CALLED NUMBER = The called number must be a 10-digit domestic number, a 1- to 3-digit international country code, or 0.
 - CARD NUMBER = The input CAS card number must be 14 digits.
 - CNI NOT AVAILABLE = The query test cannot be sent to the CAS/NCP data base because the common network interface (CNI) is not available.
 - FEATURE NOT AVAILABLE = The requested action failed. The feature required to process the request is not present in the switch or the given module.
 - INVALID INPUT = The query could not be formatted with the data input.
- PF = Printout follows. The request has been received. Output message TST CAS will follow.
- RL = Retry later. May also include:
 - CNI/DLN PROBLEM = The test message cannot be sent- CNI is in overload or no active direct link node (DLN) is available.
 - INTERNAL ERROR = An invalid CAS query identifier (QID) was obtained.
 - TEST IN PROGRESS = Another common channel signaling (CCS) test is in progress.
 - TOO MANY QUERIES RUNNING = No CAS query IDs are available.

5. REFERENCES

Input Message(s):
EXC:DSTT
TST:BNS
TST:CCRD
TST:INWATS
TST:NCD
TST:RATE

Output Message(s):

EXC:DSTT
TST:BNS
TST:CAS
TST:CCRD
TST:INWATS
TST:NCD
TST:RATE

ID TST:CCRD
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that a calling card (CCRD) query be sent using the billing validation application (BVA) interface, the line information database (LIDB) transaction capability application part (TCAP) interface, or to the LIDB alternate destination (LALT) using the LIDB TCAP interface to verify its operation.

2. FORMAT

[1] TST:CCRD=a[-BVA];
[2] TST:CCRD=a-LIDB,{CLG|ICLG}=b[, {CLD|ICLD}=c][,CICEXP];
[3] TST:CCRD=a-LALT,{CLG|ICLG}=b[, {CLD|ICLD}=c][,OLS=d][,OST=e][,CICEXP];

3. EXPLANATION OF MESSAGE

CICEXP = Carrier identification code (CIC) expansion indicator - presence of this keyword indicates that the CIC sent by LIDB in the response message should be in the 4-digit format. Absence of the keyword indicates that the CIC should contain 3 digits.

Note: Currently the CIC could be sent by LIDB but it is not used by Operator Services Position System (OSPS) therefore there is no CIC in the test output message TST:LIDB-CCRD.

a = Fourteen-digit calling card number to be queried, in the form NPANXXXXXXXXYYY or RAO[0/1]XXXXXXXXYYY.

b = The calling number, also known as the automatic number identification (ANI), or the back number.

Prefix:	Explanation:
CLG=	This is a 10-digit directory number for a North American numbering plan (NANP) calling number.
ICLG=	This is a 1- to 3-digit international country code or a 4- to 15-digit full international number for an international calling number.

c = The called number.

Prefix:	Explanation:
CLD=	This is a 10-digit directory number for a NANP called number. Note that 411 and other N11 numbers must be entered as N11000000.
ICLD=	This is a 1- to 3-digit international country code or a 4- to 15-digit full international number for an international called number.

d = Originating line screening (OLS) code. Valid range is 1 - 999. If this entry is omitted, a default value of 0 (no OLS) is used.

e = Originating station type (OST). Valid value(s):

ACQS = Other ACQS station.
ACQSHOTL = Automatic charge quotation service (ACQS) hotel station.
CNPRE = Pre-paid coin station.
CNPST = Post-paid coin station.
NAHOTL = Non-ACQS hotel.

NCNPUB = Non-coin public station.
OTHER = Other station.
UNKN = Unknown station.

4. SYSTEM RESPONSE

NG = No good. Includes one of the following:

- CICEXP ALLOWED ONLY FOR LIDB AND LALT = The carrier identification code expansion indicator (CICEXP) may only be used if LIDB TCAP interface is the protocol used to access the database.
- CLD/ICLD ALLOWED ONLY FOR LIDB AND LALT = The called number may only be specified if LIDB TCAP interface is the protocol used to access the database.
- CLG/ICLG ALLOWED ONLY FOR LIDB AND LALT = The calling number may only be specified if LIDB TCAP interface is the protocol used to access the database.
- CNI NOT AVAILABLE = The query request cannot be sent to the BVA, LIDB, or LALT database because the common network interface (CNI) is not available.
- FEATURE NOT AVAILABLE = The requested action failed. The feature required to process the request is not present in the switch or the given module.
- INCOMPATIBLE ICLG AND CLD NUMBERS = The international calling number is incompatible with a NANP called number of 4110000000. Specify the NANP called number as NPA-555-1212.
- INTERNAL ERROR = There is an internal error with the LIDB query format.
- INVALID CLD NUMBER = The called number is invalid. The NANP called number must be a 10-digit directory number.
- INVALID CLG/ICLG NUMBER = The calling number is invalid. The calling number must be specified if LIDB TCAP interface is the protocol used to access the database, and a NANP calling number must be a 10-digit directory number.
- INVALID INPUT = The calling card number must be fourteen digits.
- OLS ALLOWED ONLY FOR LALT = The OLS may only be specified if the database is specified as LALT.
- OLS RANGE IS 1 - 999 = The valid range for OLS is 1 to 999, inclusive.
- OST ALLOWED ONLY FOR LALT = The OST may only be specified if the database is specified as LALT.

PF = Printout follows. The request has been received. If BVA was specified, output message TST:CCRD follows. If LIDB or LALT was specified, output message TST:LIDB-CCRD follows.

RL = Retry later. Includes one of the following:

- CNI/DLN PROBLEM = The test message cannot be sent. CNI is in overload or no active direct link node (DLN) is available.
- TEST IN PROGRESS = Another common channel signaling (CCS) test is in progress.
- TOO MANY QUERIES RUNNING = No calling card query IDs are available.

5. REFERENCES

Input Message(s):
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:ICCV
TST:INWATS
TST:NCD

TST:RATE

Output Message(s):

EXC:DSTT

TST:AT1

TST:BNS

TST:CAS

TST:CAS7

TST:CCRD

TST:ICCV

TST:INWATS

TST:LIDB-BNS

TST:LIDB-CCRD

TST:NCD

TST:RATE

ID TST:CCS-GSMCFG
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that a report is issued indicating whether Generic Retrofit Selective Initialization may proceed with minimal impact on CCS capability.

2. FORMAT

TST:CCS,GSMCFG[,OPT=a];

3. EXPLANATION OF MESSAGE

a = Command line option string passed to the unix command: /prc/supr/gsmcnfg. If no option string is specified, a summary of possible command line options are printed on the ROP and displayed on the terminal.

4. SYSTEM RESPONSE

NG = No good. May also include:

- NO GLOBAL SM = No GSM is provisioned in the office.
- GSM MISMATCH = The specified SM does not exist or is not a GSM.

RL = Retry later. May also include:

- DATA BEING UPDATED = The input message cannot be processed because the relations that contain the status of linksets, DPCs, clusters, networks, PHs, etc. are being updated either by a traffic diversion terminal process or by audits.
- MSG NOT SENT TO CLIENT PROC = The input message cannot be processed because the signaling traffic route and management (STRM) system process failed to create the terminal process.

PF = Printout Follows. Followed by the TST:CCS,GSMCFG output message.

5. REFERENCES

Input Message(s):

OP:CCS-ROUTE

OP:CCS-LSCLS

Output Message(s):

TST:CCS-GSMCFG

Other Manual(s):

Common Channel Signaling Service Features

Office Generic Retrofit

MCC Display Page(s):

1532 (*CCS LINK SET SUMMARY*)

1533 (*CCS LINK SET MEMBER*)

RC/V View(s):

(*SIGNALING LINK SET*)

(SIGNALING LINK SET MEMBER)
(COMBINED SIGNALING LINK SET)
(NETWORK ROUTING)
(CLUSTER ROUTING)
(SIGNALING POINT CODE)

ID TST:CCSLK
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Schedules a link test to be run on a signaling link. The link tests are conducted to ensure that message traffic can travel across the signaling links.

Note: This input message is applicable only for packet switching unit (PSU) platform CCS7.

2. FORMAT

TST:CCSLK,SET=a[&&b],MEMBER=c[&&d][,SM=e];

3. EXPLANATION OF MESSAGE

- a = Link set number or lower limit of a range of link set numbers. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual. When a range is specified, only equipped numbers in the range will be processed. The range of numbers need not start or end with equipped link set numbers.
- b = Upper limit of a range of link set numbers.
- c = Link member number or lower limit of a range of link member numbers. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual. When a range is specified, only equipped numbers in the range will be processed. Range of numbers need not start or end with equipped link member numbers.
- d = Upper limit of a range of link member numbers.
- e = Global switching module (GSM) number. Common channel signaling (CCS) GSM number where the link to be tested is located. If no SM number is specified and only one CCS GSM exists in the office, the specified link on that GSM will be tested. If multiple CCS GSMs exist in the office, the SM must be specified.

4. SYSTEM RESPONSE

- NG = No good. May also include:
 - GSM MISMATCH = The specified SM is not a GSM or the SM does not exist.
 - NO GLOBAL SM = No GSM is provisioned in the office.
 - NEED GSM NUMBER = SM was not specified in the input message, and office has more than one GSM provisioned.
- PF = Printout follows. Followed by the TST:CCSLK output message.
- RL = Retry later. May also include:
 - SM NOT AVAILABLE = Command cannot be processed because the specified GSM is not accessible.

5. REFERENCES

Output Message(s):
TST:CCSLK

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-190-120 *Common Channel Signaling Service Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)

1533 (CCS LINK SET MEMBER)

ID TST:DLNHB
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5,CNI

1. PURPOSE

Requests a manual direct link node (DLN) "heartbeat test" execution for a specific switching module (SM). The DLN heartbeat test checks each SM for its ability to communicate with the DLN. This input message allows the user to test a particular SM to insure that it can process messages from the DLN. If problems exist the REPT:DLN output message generated will help in the solution.

2. FORMAT

TST:DLNHB,SM=a;

3. EXPLANATION OF MESSAGE

a = SM number.

4. SYSTEM RESPONSE

NG = No good. May also include:

- DLNS ARE NOT EQUIPPED = This test can only be run on common network interface (CNI) rings equipped with DLNs. This ring does not have DLNs.
- SM NOT AVAILABLE = The SM chosen is either not equipped or cannot process messages at this time.

PF = Printout follows. The REPT:DLN and REPT:TST-DLN request has been received and test is being executed.

RL = Retry later. May also include:

- AM INIT IN PROGRESS = The administrative module (AM) is currently in an initialization state. This test cannot be run at this time.
- CNI NOT AVAILABLE = The CNI ring is not available at this time.
- DLN NOT AVAILABLE = The DLNs are not in active/standby state.
- DLN SWITCH IN PROGRESS = The DLNs are switching states. Communications to the DLN is not possible at this time.
- RING IS IN SILENCE STATE = Communication both to and from the node is not available at this time.
- TST DLNHB CURRENTLY INPROG = A previous test is currently in progress. Only one test at a time is allowed.

5. REFERENCES

Output Message(s):

REPT:DLN

REPT:TST-DLNHB

Other Manual(s):

235-190-120 *Common Channel Signaling Service Features*

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID TST:DSL
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

To test the specified integrated service digital network (ISDN) basic rate interface (BRI) using digital, analog or metallic techniques (digital subscriber line (DSL) and BRI are used interchangeably in this message).

Warning: Mismatch tests and loop-back tests deny customer service on associated DSL channels for the duration of the request. In general, tests that include the D-channel (explicitly or implicitly) block all call processing on the DSL.

Specifically, the test type parameter is used to request digital loop-back (LPBK) testing, corrupt cyclic redundancy check (CRC) testing or hardware mismatch testing. Testing of DSLs is supported in all configurations of the access interface unit (AIU), integrated services line unit (ISLU), integrated services line unit, version 2 (ISLU2), integrated digital carrier unit (IDCU), and digital network unit - synchronous optical network (SONET) (DNU-S). In addition, testing DSLs of both custom and standard (layer 3) interface types is supported.

The types of DSL (layer 1) interfaces supported are the T-interface (T) and the U-interface (U). The U-interface DSLs (U-DSLs), are supported by alternate mark inversion (AMI) and 2 binary 1 quaternary (2B1Q) technologies. The 2B1Q version supports the standard defined by the ANSI¹. For the remainder of this message, the term ANSI refers to the 2B1Q version.

The IDCU and DNU-S connect a remote digital terminal (RDT) using the TR-303 interface. The RDT equivalent of the ISLU line card (LC) is called a channel unit (CU). Any type of LC, line circuit (LCKT) or RDT CU are collectively referred to as the line termination (LT) throughout this message.

Unless otherwise stated: all references to ISLU include all configurations of the ISLU and the ISLU2. This includes both the remote integrated services line unit (RISLU) and remote integrated services line unit version 2 (RISLU2). All references to AIU include the remote access interface unit (RAIU). Reference to line unit (LU) includes all supported ISDN compatible LUs.

Any TST:DSL request may be stopped using the STP:TST-DSL input message (with the exception of IDCU or DNU-S CRC test which must execute until completion, as per specification).

The following message formats indicate the parameters that apply to specific test types as used for ISLU, AIU, IDCU and DNU-S applications. In general, the DSL to be tested is identified using the office equipment number (OEN) or an associated subscriber directory number (DN).

Formats 1 through 4 are for DSL tests on any LU using the subscriber DN.

Format 5 is for ISLU DSL testing using the subscriber DN.

Formats 6 through 10 are for ISLU DSLs using the line card equipment number (LCEN).

Formats 11 through 14 are for IDCU DSLs using the IDCU line equipment number (ILEN).

Formats 15 through 19 are for ISLU2 DSLs using the line circuit equipment number (LCKEN).

Formats 20 through 23 are for DNU-S DSLs using the integrated digital loop carrier (IDLC) networking line equipment number (INEN).

Formats 24 through 27 are for AIU DSLs using the AIU equipment number (AIUEN).

1. Registered trademark of American National Standards Institute.

2. FORMAT

```
[1] TST:DSL[:AUTO|CS],DN=a[,CH=m][,TEI=n][,CAMP=o][,RTDS1=p]
    [,TERM=q][,INT=r][,DUR=s][,MDUR=t][,RATE=u][,BLKSZ=v][,ABER=w]
    [,MODE=x][,V][,ROP][,UCL=y];
[2] TST:DSL:PS,DN=a[,CH=m][,TEI=n][,CAMP=o][,RTDS1=p][,TERM=q]
    [,INT=r][,DUR=s][,MDUR=t][,MODE=x][,V][,ROP][,UCL=y];
[3] TST:DSL:OSPS,DN=a[,CAMP=o][,RTDS1=p][,ROP][,UCL=y];
[4] TST:DSL:CRC[=1],DN=a[,DUR=s][,CAMP=o][,V][,ROP][,UCL=y];
[5] TST:DSL:MSMTCH,DN=a[,CAMP=o][,ROP][,UCL=y];
[6] TST:DSL[:AUTO|CS],LCEN=b-c-d-i[,CH=m][,TEI=n][,CAMP=o][,TERM=q]
    [,INT=r][,DUR=s][,MDUR=t][,RATE=u][,BLKSZ=v][,ABER=w][,MODE=x]
    [,V][,ROP][,UCL=y];
[7] TST:DSL:PS,LCEN=b-c-d-i[,CH=m][,TEI=n][,CAMP=o][,TERM=q][,INT=r]
    [,DUR=s][,MDUR=t][,MODE=x][,V][,ROP][,UCL=y];
[8] TST:DSL:OSPS,LCEN=b-c-d-i[,CAMP=o][,ROP][,UCL=y];
[9] TST:DSL:CRC,LCEN=b-c-d-i[,DUR=s][,CAMP=o][,V][,ROP][,UCL=y];
[10] TST:DSL:MSMTCH,LCEN=b-c-d-i[,CAMP=o][,ROP][,UCL=y];
[11] TST:DSL[:AUTO|CS],ILEN=b-e-g-k[,CH=m][,TEI=n][,CAMP=o][,RTDS1=p]
    [,TERM=q][,INT=r][,DUR=s][,MDUR=t][,RATE=u][,BLKSZ=v][,ABER=w]
    [,MODE=x][,V][,ROP][,UCL=y];
[12] TST:DSL:PS,ILEN=b-e-g-k[,CH=m][,TEI=n][,CAMP=o][,RTDS1=p]
    [,TERM=q][,INT=r][,DUR=s][,MDUR=t][,MODE=x][,V][,ROP][,UCL=y];
[13] TST:DSL:OSPS,ILEN=b-e-g-k[,CAMP=o][,RTDS1=p][,ROP][,UCL=y];
[14] TST:DSL:CRC[=1],ILEN=b-e-g-k[,DUR=s][,CAMP=o][,ROP][,UCL=y];
[15] TST:DSL[:AUTO|CS],LCKEN=b-c-d-h-j[,CH=m][,TEI=n][,CAMP=o][,TERM=q]
    [,INT=r][,DUR=s][,MDUR=t][,RATE=u][,BLKSZ=v][,ABER=w][,MODE=x]
    [,V][,ROP][,UCL=y];
[16] TST:DSL:PS,LCKEN=b-c-d-h-j[,CH=m][,TEI=n][,CAMP=o][,TERM=q][,INT=r]
    [,DUR=s][,MDUR=t][,MODE=x][,V][,ROP][,UCL=y];
[17] TST:DSL:OSPS,LCKEN=b-c-d-h-j[,CAMP=o][,ROP][,UCL=y];
[18] TST:DSL:CRC,LCKEN=b-c-d-h-j[,DUR=s][,CAMP=o][,V][,ROP][,UCL=y];
[19] TST:DSL:MSMTCH,LCKEN=b-c-d-h-j[,CAMP=o][,ROP][,UCL=y];
[20] TST:DSL[:AUTO|CS],INEN=b-f-g-k[,CH=m][,TEI=n][,CAMP=o][,RTDS1=p]
    [,TERM=q][,INT=r][,DUR=s][,MDUR=t][,RATE=u][,BLKSZ=v][,ABER=w]
    [,MODE=x][,V][,ROP][,UCL=y];
[21] TST:DSL:PS,INEN=b-f-g-k[,CH=m][,TEI=n][,CAMP=o][,RTDS1=p]
    [,TERM=q][,INT=r][,DUR=s][,MDUR=t][,MODE=x][,V][,ROP][,UCL=y];
[22] TST:DSL:OSPS,INEN=b-f-g-k[,CAMP=o][,RTDS1=p][,ROP][,UCL=y];
[23] TST:DSL:CRC[=1],INEN=b-f-g-k[,DUR=s][,CAMP=o][,ROP][,UCL=y];
[24] TST:DSL[:AUTO|CS],AIUEN=b-c-h-j[,CH=m][,TEI=n][,CAMP=o][,RTDS1=p]
    [,TERM=q][,INT=r][,DUR=s][,MDUR=t][,RATE=u][,BLKSZ=v][,ABER=w]
    [,MODE=x][,V][,ROP][,UCL=y];
[25] TST:DSL:PS,AIUEN=b-c-h-j[,CH=m][,TEI=n][,CAMP=o][,RTDS1=p]
    [,TERM=q][,INT=r][,DUR=s][,MDUR=t][,MODE=x][,V][,ROP][,UCL=y];
[26] TST:DSL:OSPS,AIUEN=b-c-h-j[,CAMP=o][,RTDS1=p][,ROP][,UCL=y];
[27] TST:DSL:CRC,AIUEN=b-c-h-j[,DUR=s][,CAMP=o][,ROP][,UCL=y];
```

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

AUTO = Perform LPBK testing on the specified or defaulted DSL channels, automatically (AUTO) selecting the test type in accordance with the basic/logical configuration of each channel tested (AUTO is the default test type). Using AUTO test type selection, packet switch (PS) testing is selected for the D-channel and/or any permanent packet B-channel (PPB); otherwise, circuit switched (CS) testing is selected.

If all ISLU ANSI DSL channels are under CS or PS test, the LPBK point is beyond the LT and layer 1 is found to be down beyond that point, a mismatch test is automatically invoked. In such cases, a "job status" of the form

CRC = Perform a corrupt performance monitoring (PM) CRC test on the specified ANSI U-DSL, between the LT and the network termination 1 (NT1). The corrupt CRC test verifies that the PM counters at the LT and CUs can detect and maintain a record of block errors (BE). In addition, if the reporting of PM alerts has been turned on and the associated alerts have not fired for the current period, a PM alert (refer to the REPT:ALE-LEVEL1 output message) is triggered if the CRC test duration (DUR) is long enough to cause a LT PM count threshold to be reached (refer to RC/V View 22.15).

The CRC test can be used to output the PM counts at the LT and optionally the CUs (for verbose requests) by specifying a test duration of zero (refer to the DUR parameter). In this case, no CRC corruption is done.

The CRC test introduces "corrupted" CRC once every superframe of the layer 1 protocol. One BE is generated for each superframe that transmitted downstream (that is, LT toward the NT1) and then back upstream (that is, NT1 toward the LT). For ISLU and AIU DSLs, both the upstream and downstream directions on the U-DSL are tested at the same time. For IDCU DSLs, the direction of testing must be specified (refer to variable '1'). Test results in the form of PM counts are output for the LT and optionally for each equipped CU if the verbose (V) parameter is specified.

The IDCU and DNU-S CRC test differs from other LUs as required by the RDT standard. For IDCU and DNU-S DSLs, ANSI CUs cannot be detected by the switch; therefore, PM counts are generated for only the LT. The CRC test for IDCU and DNU-S must run to completion; once started, it cannot be stopped (refer to the STP:TST-DSL input message). The IDCU and DNU-S CRC maximum test duration is 255 seconds (4 minutes, 15 seconds).

The LT current hour PM counts are marked corrupt as a result of CRC testing to indicate that the entire U-DSL (NT1 to LT) cannot be monitored for BEs during or after the CRC test (that is, while the corrupt condition persists). The PM counters are left as they were at the end of the test. This allows a re-read of the PM counts if necessary. The EXC:ALE input message can be used to clear the PM counts if desired; however, the corrupt condition persists until the next PM interval. There is no way to mark the CU PM counts as corrupt.

The CRC test is non-invasive with regards to DSL (2B+D) channel operations and does not cause a loss of customer service.

CS = Perform a CS digital LPBK test on the specified or defaulted DSL channel(s). This test is useful for evaluating the quality of DSL channels supporting circuit-switched data (CSD) or circuit-switched voice (CSV) types of services. This test requires the use of a integrated services test function (ISTF) or global digital services function (GDSF) as the digital test source. One test equipment transmit/receive channel (maximum of 3 per ISTF and 16 per GDSF) must be allocated for each CS DSL channel to be tested. The data rate of the digital bit stream may be specified using the RATE parameter.

The CS test activates the specified (or default) LPBK termination, establishes a digital path between the test equipment channel and the associated DSL channel, and transmits a pseudo random bit stream to be returned at the location of LPBK termination. The incoming bit stream (returning from the LPBK) is checked by the test equipment to derive the bit error rate (BER) and the errored blocks (ERBLK) for output. The success or failure of testing is based on the acceptable bit error rate (ABER), which may be specified on input.

The test equipment is accessed using trunk routing techniques. All associated growth procedures, which include the assignment of logical test ports (LTP), must be completed before the test equipment can be accessed. The number of LTPs that serve a switching module (SM) must always be equal to the number of ISTF and GDSF circuits in that SM. If test equipment circuits are out-of-service (OOS) a like number of LTPs must be OOS. If an imbalance exists, the test equipment is chronically unavailable.

MSMTCH = Perform a mismatch test on the specified ISLU U-DSL to test compatibility between the LT and the first metallic termination (CU or NT1) connected to the LT. The mismatch test is not supported for AIU, IDCU and DNU-S DSLs. All customer service is blocked during mismatch testing.

After verifying database integrity, the mismatch test makes current measurements to determine the resistance at the LT, as connected to the first metallic termination (NT1 or CU), to detect the following abnormal conditions:

- Loop resistance that is too high or low between tip and ring.
- Loop resistance that is too low between tip and ground or ring and ground.
- For AMI U-DSLs, tip and ring reversal at the NT1 (that is, when no CUs are present).

For ISLU ANSI U-DSLs, the mismatch test marks the LT current hour PM counts as corrupt to indicate that the entire U-DSL (from NT1 to LT) cannot be monitored for BEs during or after the mismatch test (that is, while the corrupt condition persists). There is no way to mark the CU PM counts as corrupt.

OSPS = Perform a voice continuity test on an Operator Services Position Systems (OSPS) DSL supporting directory assistance (DA) or toll assistance (TA) operators. The transmission test function (TTF) or GDSF is used as the analog test source. This test can only be performed on the B1-channel using an external analog termination provided by customer premise equipment (CPE) such as the basic services terminal (BST) or video display terminal (VDT). The termination is provided when the CPE headset is unplugged. The OSPS test duration is fixed at 10 seconds. The OSPS DSL must be OOS before it can be tested (refer to the RMV:LINE message).

PS = Perform a PS digital LPBK test on the specified or defaulted DSL channel(s). This test is used to evaluate the quality of DSL channels supporting permanent packet D-channel (PPD), PPB, or on-demand packet (ODP) types of services. This test uses the logical protocol handler (PH) channel(s) assigned to serve the associated DSL channel(s) to source layer 2 test packets. The transmission rate of test packets is approximately 1 packet per second.

The test activates the specified (or default) LPBK termination, establishes a virtual digital path between the PH channel and the associated DSL channel, and transmits test packets (containing a pseudo random number) to be returned at the location of LPBK termination. The incoming packets are checked by the PH to derive the percentage of successfully transmitted packets (PKTRATE) for output.

The testing status is ATP if 98% to 100% of the transmitted packets are received error-free. A failed status indicates less than 98% of the transmitted packets were received error-free.

Generally, a logical PH channel is always dedicated to serve a D-channel or PPB-channel. One exception is the pseudo BRI D-channel, which has no active PH channel assigned and therefore cannot be tested. For ODP B-channels, up to two logical PH channels may be assigned to serve a single user. In this case, an available PH channel is chosen by software for testing (not user selectable). On DSL channels that support ODP service, both CS and PS tests can be performed (refer to the MODE=USER parameter).

If PS DSL channels are assigned to different logical PHs, the testing of all channels may continue simultaneously; however, if those PH channels are mixed on the same logical PH, the PS tests are done sequentially. This results in an elapsed test time approximately three times the test duration when testing all DSL channels. If the test duration is over 60 seconds, an output message is generated indicating a retest is in progress for each DSL channel encountering a busy PH. Sequential testing is required, as only one PS digital test can be performed per PH (this limit has always existed). The effects may also be observed when testing two different DSLs, both having a PS channel assigned to the same logical PH (which may support 128 channels). The test results indicate a PH resource shortage for the later of the two tests.

A physical PH is logically assigned to serve specific DSL channels. This logical assignment can change automatically during testing. This means that the PH test source can be different when the test completes. A PS test procedure is not preserved in the event of a PH soft or hard switch. If detected, the PH switch terminates testing on the associated channel(s). If a PH switch goes undetected, a time-out for test results occurs. The assigned physical PH is checked on a periodic basis; however, during that period the test duration may elapse or the defective PH can be switched.

- ROP = Direct all output to the receive-only printer (ROP).
The ROP parameter frees the invoking terminal (such as, TLWS, MCC) for subsequent work while test results are logged only on the ROP device. This is useful when performing long duration tests in modes that produce multiple output messages.
- V = Generate output in a verbose manner.
This parameter provides for the output of testing information which would otherwise not be made available. For CRC test requests, test results for all populated CUs are output. For SECT mode LPBK requests, all intermediate failures are output.
- a = Directory number that specifies a user of the DSL.
- b = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = ISDN line unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Line group controller number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = IDCU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = DNU-S number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- g = Remote digital terminal number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- h = Line board/pack number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- i = Line card number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- j = Line circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- k = RDT channel unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- l = IDCU or DNU-S CRC test direction. The IDCU and DNU-S CRC test is run in one

direction at a time, which is specified as a value to the CRC parameter. The test direction values are not used by other LUs, as the test is always runs in both directions. If the duration specified is zero the test direction values are ignored. Valid value(s):

UP = Perform a CRC test using the upstream registers of the LT on the U-DSL, reporting only upstream PM results on output.
DWN = Perform a CRC test using the downstream registers of the LT on the U-DSL, reporting only downstream PM results on output.

DEFAULT: If a direction is not specified and the duration specified is greater than 0, the CRC parameter defaults to DWN.

m = DSL channel(s) tested.

This parameter specifies the DSL channel(s) to be tested. The entry of a particular value does not imply that call processing continues for untested DSL channels; if hardware limitations require the control of other DSL channels, they are also blocked for testing. If ALL DSL channels are to be tested and the request is inappropriate for one or more channels, testing may continue, requiring fewer DSL channels to be blocked for testing. Output messages are generated for all channels requested for testing. Valid value(s):

B = Test using any idle B-channel. If both B-channels are busy, camp-on both channels, using the channel that becomes free first. The UCL=PRMT parameter is not allowed when any B-channel is specified.

B1 = Test on the B1-channel.

B2 = Test on the B2-channel.

D = Test on the D-channel. The D-channel provides in-band signaling required to support CS B-channels; therefore, when the D-channel is tested, the test procedure also controls any CS B-channels. However, PPB-channels may be free (that is, hardware permitting), as signaling is done in-band.

BB = Test on both B-channels.

ALL = Test on all assigned DSL channels.

DEFAULT: Except for CS testing, the CH parameter defaults to ALL. For CS testing, the default is BB.

n = Terminal endpoint identifier. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

The TEI can be used to identify specific CPE for the purpose of performing a CPE LPBK or identifying a specific subscriber for USER mode testing. The DN or OEN must be used in conjunction with a TEI to properly identify the associated SM and LT. Use the OP:CPE input message to obtain active TEI.

A TEI must be specified to do a CPE LPBK when the CPE is not bound to a specific user. In this case, the OEN or an unbound DN must be used to identify the LT. If a DN is used, the service order profile (SOP) associated with that user is implied to be bound to the CPE assigned the TEI. This allows the LPBK testing of an unbound users ODP service using any unbound CPE. If a bound DN is used, the TEI is ignored on input and the TEI associated with the user's CPE is always output.

To perform USER mode testing, a unique SOP must always be identified. The SOP can be identified using a DN, or the OEN with the TEI assigned to a bound CPE.

o = Camp-on (CAMP) time (15-3600, default 300).

The test camps-on for the time specified (in seconds), waiting for the required resources to become available, at which time testing may proceed. If the resources do not become available in the specified time, the test is aborted. No camp-on occurs if UCL=PRMT is specified.

p = Remote terminal digital signal level 1 (DS1) (RTDS1=1-28).

The RTDS1 specifies the DS1 carrier transmission path between the IDCU and the RDT that is used during digital testing. If the specified RTDS1 is unavailable, the test is aborted. The RTDS1 is only selectable when performing CS or ODP tests on CS channels. The RTDS1 is permanently assigned for D-channels and PPB-channels. The protected (that is, spare) DS1 cannot be specified for testing. The specified RTDS1 can be lost if the digital path must be reestablished for retest or multi-section tests (refer to the MODE parameter).

q = Termination.

For digital LPBK testing, the termination is the point at which the test data is returned to the test equipment for evaluation. A LPBK termination may be provided using the built in capabilities of transmission equipment dedicated to serve the DSL or by breaking the LOOP|PATH manually, applying suitable test equipment and specifying TERM=EXT.

A LPBK termination may be placed at various locations within the digital path or loop to facilitate the sectionalization of transmission problems. The failure of a digital LPBK test implicates the transmission media as well as the transmission equipment providing the LPBK termination. Alternatively, the success of a LPBK test does not absolve the transmission equipment providing that LPBK from failure, as the fault may lie within that unit beyond the associated LPBK circuitry. In addition, particular transmission equipment may perform its primary function flawlessly; however, the LPBK function within that unit can be faulty or simply unimplemented.

The customer is denied service during testing. The extent of service blockage depends on the channels under test and the LPBK chosen. Any attempt to test the D-channel blocks all CSV/CSD/ODP calls, as the D-channel is used for all call setup procedures. The customer impact may be reduced by requesting interruptible tests (refer to the INT parameter). Valid value(s):

CPE = The LPBK termination is provided within the CPE connected to the DSL. Specifically, the selected ISDN telephone or data module CPE provides the LPBK termination(s) for digital testing. For U-DSLs, the use of this termination allows evaluation of the subscribers on premise wiring/equipment. If an NT1 LPBK test passes and a CPE LPBK fails, the fault must lie beyond the LPBK termination within the NT1. For T-DSLs the fault would lie beyond the LT LPBK termination.

The CPE may be specified using a bound DN, or the OEN with an assigned TEI. The CPE may also be specified using an unbound DN with a TEI. This implies binding between the SOP of the DN and the selected CPE. The CPE can provide a LPBK on one or both B-channels. The CPE cannot provide a LPBK on the D-channel.

Only CPEs that support the maintenance information message (MIM) protocol, as described in the Basic Rate Interface Specification manual, can activate this LPBK termination. CPE vendors other than Alcatel-Lucent are not required to support this LPBK termination. The standard interface CPE does not support MIM or provide LPBK capability. Attempts to LPBK incompatible CPEs can result in failures to establish or remove LPBK terminations.

It should be noted, that the CPE using feature package one (FP1) firmware does not support CPE LPBKs, while the CPE FP firmware and later fully supports the LPBK. Examples of compatible CPE include the AT&T 6508, 7505, 7506, 7507 and 8503 telephones and the 7500 data module.

CUX	= The LPBK termination is provided within the specified DSL CU. The CU LPBK terminations are only supported on ISLU and AIU DSLs (CUs are not detected and associated LPBKs are not attempted, on DSLs supported by other LUs). The three types of CUs supported are the AMI, TBRITE AMI and the <i>ANSI</i> CUs. The AMI U-DSL supports up to four CUs (x=1-4). The presence of AMI CUs cannot be determined by the switch; therefore, a LPBK request is performed as if every AMI DSL had CUs. If CUs are not populated, LPBK testing always fails indicating a "FAULT IN LOOP PATH", as the test data is not returned to the test equipment. The <i>ANSI</i> U-DSL supports up to six channel units (x=1-6) and can respond to queries from the switch; therefore, the number of populated CUs is determined prior to testing and only those present are tested. <i>ANSI</i> CUs support the LPBK of individual B-channels or all DSL channels simultaneously. For AMI CUs, individual B-channel LPBKs are not possible and the D-channel LPBK is not supported for <i>ANSI</i> or AMI; therefore, to perform associated requests, ownership of all DSL channels is obtained and all DSL channels are placed in LPBK. This method denies service to all users during the CU test. Only the <i>ANSI</i> CU supports concurrent B-channel LPBKs using the CH=BB value. However, because all DSL channels are unlooped with one request, only one test procedure may LPBK a given CU at a time. The TBRITE AMI CU differs from the AMI CU in that the NT1 is built into the CU. The TBRITE AMI unit provides both CU and NT1 LPBK capability.
EXT	= A test may be performed without a LPBK termination for the purpose of applying a termination "manually" (by the user) external (EXT) to the switch. If a LPBK termination is not "manually" applied, the test fails because test data is not returned to the test equipment. An EXT LPBK can be provided by suitable test equipment connected along the loop or by setting compatible CPE in LPBK mode. The DSL port to be tested should be manually taken OOS prior to testing (For example, refer to the RMV:LINE and RMV:DATA LINK input messages), as the LPBK must be applied prior to invoking the test. This eliminates the possibility of producing protocol errors and associated records when looping back PS channels.
LT LC	= The LPBK termination is provided within the ISLU LC, the AIU LCKT or the IDCUs or DNUS RDT CU. The three LT types supported are T-DSLs, <i>ANSI</i> U-DSLs, and AMI U-DSLs. The T-DSL LT attaches directly to the (T-interface) CPE. The U-DSL LT uses an (on premise) NT1 to provide a T-interface for the CPE and may possibly employ CUs to extend the U-interface. The LT supports the LPBK of individual DSL channels or all DSL channels simultaneously and DSL channels may be selectively unlooped. This allows concurrent test procedures to set and remove LPBKs independently. Requests to LPBK the LT on the D-channel result in blocking calls on CS B-channels.
NT1	= The LPBK termination is provided within the NT1. The NT1 termination is supported on <i>ANSI</i> and AMI U-DSLs. The NT1 termination does not exist for T-DSLs. The NT1 functionality may be incorporated in other equipment (such as, the T-BRITE CU and the 6508 CPE), however, the actual implementation should be transparent. Both the <i>ANSI</i> and AMI NT1 support the LPBK of individual B-channels or all DSL channels simultaneously. Only the <i>ANSI</i> NT1 allows concurrent

B-channel LPBKs using the CH=BB value. Since the D-channel and AMI CH=BB LPBKs are not supported, ownership of all DSL channels is obtained and all DSL channels are placed in LPBK to support these requests. This method denies service to all users during the NT1 test. Also, because all DSL channels are unlooped with one request, only one test procedure may LPBK a given NT1 at a time.

PH = The LPBK termination is provided on the PH channel that supports the associated DSL channel. The type of PH hardware (such as, PH2 or PH3) is transparent to the LPBK request.

This LPBK provides the ability to diagnose the PH channel (that is, the test equipment) serving a particular DSL channel. An ODP user can be served by two PH channels. In this case, a free PH channel is automatically selected to provide the LPBK termination (the PH channel that provides the LPBK is not user selectable). A PH LPBK may be performed on one or all DSL channels simultaneously; however, only one PH LPBK test may be performed per PH (refer to the PS test type for limitations). Requesting a PH LPBK test of the D-channel, always blocks call processing on CS B-channels.

DEFAULT: The LT is the default for T-DSLs and the NT1 is the default for U-DSLs.

r = Customer interrupt (INT) allowed.

This is the type of customer service request allowed to interrupt the testing procedure. This parameter allows the user to minimize the customer impact associated with performing a LPBK test. Because all LPBK tests block customer service on one or more DSL channels, the INT parameter should be considered whenever performing routine or preventive maintenance during periods of high or moderate customer usage. When a test is aborted, test results up to that point and the elapsed test time are delivered to the user. The INT parameter only applies to LPBK tests, as other test types are of either a fixed, short duration or are non-invasive with respect to the customer. To assure the collection of a minimum test data set, a minimum test duration may be specified (refer to the MDUR parameter).

In all cases, only customer CSV or CSD requests to originate calls on or terminate calls to the DSL under test can cause the test procedure to be aborted. That is, only customer service requests that require the use of a CS DSL channel that is under test, cause the test to be aborted. Test procedures on permanent packet DSL channels cannot be aborted for incoming packets.

Whenever the D-channel is looped back, the CPEs are effectively cut-off from the switch and customer originations from the CPE cannot be detected by the switch. The D-channel can be placed in LPBK even if that channel is not tested. For example, a request to test one or more B-channels using an AMI CU termination requires the LPBK of ALL DSL channels (refer to the TERM=CU parameter). Valid value(s):

BOTH = Call originations from or terminations to the DSL under test cause the test procedure to be aborted.

ORIG = Call originations from the DSL under test cause the test procedure to be aborted.

TERM = Call terminations to the DSL under test cause the test procedure to be aborted.

DEFAULT: By default, the customer is denied service on the DSL channel(s) required for testing, for the full test duration.

s = Duration (DUR) of test (0-3600, default 20).

The duration is the length of time (in seconds) that the test source (such as, ISTF, GDSF or PH) sends test data. In general, the test duration does not include the setup time, camp-on time, or idling time associated with any test request. The elapsed time taken for the test request to complete can be significantly greater than the actual test duration (refer to the MODE parameter).

LPBK testing for CS, PS, and AUTO tests accepts durations of 1 to 3600 seconds, since a value of zero is meaningless.

The CRC test accepts a duration of zero to request a read only of PM counts (no CRC corruption is done). This is useful for obtaining the current PM counts or obtaining the counts associated with a CRC test that has just finished.

The IDCU CRC maximum test duration is 255 seconds (4 minutes, 15 seconds)

For ISLU and AIU CRC testing, the test duration that is output is greater than the requested duration. This is due to internal delays associated with starting and stopping the accumulation of CRC results. The actual time the test runs is printed on output.

t = Minimum test duration (MDUR) (1-3600).

The test procedure is not aborted for customer service requests (refer to the INT parameter) until the minimum test duration, in seconds, has elapsed. Use of this parameter assures the collection of test data for at least the MDUR specified. That is, the customer is denied service on the associated channel(s) until MDUR elapses.

If MDUR is specified in the absence of the INT parameter, the test request is implied to be interruptible when the MDUR has elapsed. For requests that require control of the D-channel, testing is interruptible for only terminations when the MDUR elapses. In all other cases, testing is interruptible for both originations and terminations.

u = Data rate.

This is rate of the digital bit stream to be sourced by the ISTF|GDSF during CS LPBK testing. The configuration of SM umbilicals must be consistent with the data rate chosen. The test equipment may be located in any SM; therefore, the test port and the port under test can be located in the same or different SMs (which may be connected by an umbilical). Valid value(s):

AUTO	= Automatically select the effective data rate (default).
64CLR	= 64000 bits/sec clear channel (that is, zero-octet allowed).
64RES	= 64000 bits/sec restricted (that is, zero-octet suppressed).
56KPS	= 56000 bits/sec.

DEFAULT: By default, the effective data rate is determined by automatically attempting to synchronize for 6 seconds at each valid data rate. AUTO data rate selection is complete and testing begins when synchronization is first achieved, trying first at 64CLR, then 64RES and then at 56KPS. If synchronization cannot be achieved, testing will fail indicating "FAULT IN LOOP OR PATH" at the 56KPS data rate.

In general, SM umbilicals capable of supporting the 64CLR data rate support all other data rates; however, a lower data rate umbilical is incompatible with digital testing performed at a higher data rate. In the later case, digital testing fails consistently with "FAULT IN LOOP OR PATH". An ISTF|GDSF should never be configured in a SM that is connected via 56KPS|64RES umbilical. This would effectively restrict LPBK testing in ALL SMs to that data rate. It makes no difference if there is other test equipment available, as the lower rate equipment is selected randomly. It also makes no difference if there is a second 64CLR umbilical added, as the wrong umbilical is assigned randomly.

The data rate must also be matched with the facility being tested. If a customer complaint is associated with a service that is subscribed at 64CLR, that data rate must be explicitly provided in the test request (by default, the effective data rate is used and the associated problem may not be seen at that rate). In addition, if digital testing is performed as part of preventive maintenance, the 64CLR data rate must be specified to evaluate DSLs at the highest rate possible.

V = Block-size (BLKSZ) (1-64000).

For CS LPBK testing, the digital-bit-stream is partitioned into segments called blocks, specified using the BLKSZ parameter. The BLKSZ is the number of bits in each block. The BLKSZ is used by the ISTF|GDSF to calculate the total ERBLK for output. The ERBLK result characterizes the accumulation of bit-errors. Varying the BLKSZ allows the distribution of errors over time to be better understood. If BLKSZ is not specified, the default is chosen based on the data rate used. Valid default value(s):

56000 = For RATE=56KPS
64000 = For RATE=64RES or RATE=64CLR

W = Acceptable bit error rate (0-9, default 6).

The ABER is used by the ISTF|GDSF to determine when a CS LPBK test request is all test pass (ATP), passes degraded (DGR), or fails (FAILED). The ABER does not modify the pass/fail criteria for PS LPBK tests.

The ABER defines the failing BER as a negative power of ten. That is, an ABER of 6 defines the failing BER as 1 or more bits in error, for every 1,000,000 bits transmitted.

X = Mode of testing. The mode parameter provides a mechanism through which additional attributes may be attached to a specific test request. Valid value(s):

SNGL = In single section mode, the test request is stopped after performing one test as specified and generating the associated result output. This is the default mode of testing.

SECT = The sectionalization mode of testing is used to automatically isolate the operative/faulty portion of a DSLs digital path or transmission loop. This is accomplished by dividing the path and loop into a finite number of testable sections that are delineated by the available LPBK terminations. The maximum number of test sections possible is 10 for ANSI U-DSLs, 8 for AMI U-DSLs and 3 for T-DSLs.

Testing begins with the section of the LOOP|PATH that ends at the LPBK termination selected. If that test produces a passing result, SECT mode testing is complete; however, in the event of failure, testing automatically continues with the next testable section, by changing the LPBK termination. The ABER parameter can be used to change the criteria for ending sectionalization testing. The selection of subsequent test sections effectively shortens the LOOP|PATH and causes diagnosis to approach the test source itself (such as, PH). The testing procedure continues in this manner, until a passing result is obtained or all possible sections (that is, terminations) have been exhausted.

Whether the SECT mode test terminates successfully or with failure, output messages always indicate the section of the LOOP|PATH affected by displaying the current LPBK termination. SECT mode testing can proceed to the next section for failures that are not transmission oriented (such as, layer 1 down beyond the LT results in the test proceeding at the LT).

- The default output procedure generates only one result message for each DSL channel tested. This is a concise output strategy; however, all failures encountered at other test sections are not output unless the V parameter is specified.
- SEQ = The sequence (SEQ) test mode performs a series of digital LPBK tests that begin at the LPBK termination specified and continue until all possible terminations between that point and the test source have been used. Results are unconditionally generated subsequent to performing each test. This test verifies the LPBK functionality within each associated unit. That is, the equipment may perform its primary function flawlessly; however, the LPBK function within that unit can be faulty.
- USER = The scope of testing is limited to the DSL channel(s) supporting USER subscribed communication service(s) associated with a specific DN. DSL channel(s) associated with a users PPD, ODP, PPB, CSV or CSD service(s) are considered for testing (for DSL channels on which service is not assigned, testing is not performed). This mode of testing verifies office-dependent data (ODD) as well as the subscribed service.

The DSL user must be identified by subscriber DN. Either the DN is given directly, or it is derived from the OEN and a TEI that is assigned to a bound CPE. Only the communication services assigned to that DN are tested.

The actual test performed is always a PS or CS digital LPBK test. The PS test is used to evaluate PPD, PPB or ODP services. The CS test is used to evaluate CSV or CSD services. If the test type is not specified (that is, AUTO), it is selected based upon the service(s) that can be connected to each DSL channel tested. The scope of testing can be limited to specific services by specifying the associated test type (such as, CS). The scope of testing may be further limited by specifying a specific DSL channel (such as, CH=B1).

Various combinations of DSL services cannot be tested simultaneously; therefore, testing may be performed in two sections. For example, if ODP and CSV service are subscribed to the same DN, a CS B1-channel must undergo CS and PS testing. In this case, the PS test is performed in the first section and the test type is changed to CS for the second section.

The reason for testing specific DSL channel(s) can be derived from output. If a PS test is performed on the D-channel or a B-channel, the subscribed service is respectively, PPD or PPB. If an ODP switched (ODPS) test is performed, ODP service is subscribed. If a CS test is performed, the user typically subscribes to CSV and/or CSD services.

In general, all modes of testing are subject to a two-try retest in the event that specific testing resources are unavailable. For example, subsequent to obtaining control of associated DSL channels, test equipment may be unavailable. Rather than aborting the test request on all channels, testing continues on DSL channels having test equipment. After testing completes on those channels, the channel(s) that experienced a resource problem are tried again. If the test equipment has become available, the test proceeds to completion and test results for all channels are output. This results in extending the elapsed test time up to three times the test duration for the affected test section. If the test duration is greater than one minute, an intermediate status message is output to inform the user that a retest is in progress on the indicated channel(s).

When a retest or a new test section is performed, the test equipment and associated digital path(s) from the previous test are not reserved. That is, for each test section, control of the test equipment is regained and the digital path is reestablished. This can result in unexpected failures, when the test equipment or a digital path component (such

as, RTDS1) becomes unavailable. For each CS test section, a different ISTF|GDSF channel or an ISTF|GDSF in a different SM may be used (refer to the RATE parameter). For each ODPS test section, a different PH channel may be used (that is, If the user is served by two PH channels).

y = Perform requested action unconditionally. This parameter specifies an unconditional action that should be performed as part of the test request. Use of this parameter terminates active customer calls.

Valid value(s):

PRMT = In general, if any of the DSL channels or resources required for testing are busy, the associated call or maintenance procedure is prematurely terminated. The only exceptions are those procedures that execute with a high priority. In those cases, a PRMT request fails indicating the "port is still busy". Camp-on does not occur for PRMT requests.

The PRMT request is denied in specific cases. Attempts to test any B-channel are not permitted with the PRMT parameter, as the switch does not arbitrate which of possibly two B-channel procedures to terminate. Prior to testing DSLs supporting a OSPS facility, application processor (AP) or data link (DL), the resident procedure supporting operations must be disabled. This is accomplished by placing the DSL in an OOS state. The PRMT parameter cannot be used to terminate that procedure.

NTM = NT1 or CU "test mode" indications should be ignored ("test mode" indicates the CPE has control of the NT1 or CU LPBKs). Any test results obtained in "test mode" may be corrupt; however, this may be useful when the "test mode" indication is believed to be in error (refer to the EQCU=TESTx parameter in the TST:DSL output message).

4. SYSTEM RESPONSE

PF = Printout follows. If the test request is incomplete or invalid, a single TST:DSL output message is generated indicating the failure.

If the test request is complete, the test procedure attempts to seize control of all DSL resources required for testing. If UCL=PRMT was specified and all required DSL resources cannot be obtained immediately, the output message indicates the "port is still busy". The same output message is generated, when the camp-on period elapses.

After obtaining DSL resource ownership the test procedure outputs a "testing begins" message. The test procedure then attempts to obtain the necessary test equipment and complete the test request.

The number of TST:DSL output messages generated varies in accordance with the number of DSL channels tested and the MODE of testing selected. In general, an output message is generated for each DSL channel tested; however, if the same failure occurs on all channels tested, one output message may be output for all channels. Primarily, the test duration determines the elapsed time between output messages for multi-section tests. A unique request number is given to each test procedure and is given in the resulting output messages. When a TST:DSL request is complete, an end-of-transmission (EOT) flag appears on output.

RL = Retry later. The request has been denied due to unavailable system resources.

5. REFERENCES

Input Message(s):
ALW:ALE

ALW:DEBUG
EXC:ALE
INH:ALE
INH:DEBUG
OP:CONV
OP:CPE
OP:JOBSTATUS
OP:STATUS
RMV:LINE
RMV:ATALINK
STP:TST-DSL

Output Message(s):

EXC:ALE
OP:CPE
TST:DSL

RC/V View(s):

22.15 (THRESHOLD GROUP).

ID TST:E911
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that an enhanced 911 (E911) test query be sent to the enhanced 911 service adjunct (ESA) to retrieve an emergency service number (ESN).

2. FORMAT

TST:E911=a[,VERBOSE][,{ALT|SITE=b}];

3. EXPLANATION OF MESSAGE

ALT = The alternate ESA (listed in RC/V View 8.1 field "SEC E911 APID") is queried.

Note: The ALT and SITE optional parameters can not both be specified on the same input message. The ALT optional parameter will result in a error message if the DUAL ESA feature is not licensed, enabled or if the alternate site has not been specified in the RC/V View.

VERBOSE = The routing information associated with the retrieved ESN is also requested.

a = Ten-digit billing number or calling party number to be queried.

b = The site ID of an alternate ESA to be queried. If this option is not specified (which is the common situation), the site ID is obtained from the GLE911APID or GLE911SEC office parameter. If the dual ESA enhancements feature is not enabled, GLE911APID is used. If the dual ESA enhancements feature is enabled, the current active ESA APID, which may be either GLE911APID or GL911SEC, is used.

Note: The ALT and SITE optional parameters can not both be specified on the same input message.

4. SYSTEM RESPONSE

NG = No good. May also include:

- DUAL ESA FEATURE NOT ALLOWED = The test message can not be sent. Dual ESA is a licensed feature, that must be purchased before it can be used. Please contact your Account Representative for information on purchasing and then authorizing the dual ESA feature.
- DUAL ESA NOT CONFIGURED = The test message can not be sent. The alternate (secondary) ESA site ID must be entered in RC/V View 24.7.
- E911 FEATURE NOT ALLOWED = The test message can not be sent. E911 is a licensed feature, that must be purchased before it can be used. Please contact your Account Representative for information on purchasing and then authorizing the dual ESA feature.
- ESA NOT CONFIGURED = The test message can not be sent. The E911 office option (GLE911OP) does not support an ESA.
- FAILED TO SEND QUERY MESSAGE = The attempt to send the query message to the CMP failed.
- INVALID INPUT IN FIELD 'a' = There is either an invalid character in variable 'a', or an incorrect number of digits was input. There must be 10 digits input at 'a'.
- INVALID INPUT IN FIELD 'b' - = There is either an invalid character in variable 'b', or the entry is out of the range (1-255).
- SITE ID DOES NOT EXIST = The SITE ID input in variable 'b' does not exist.

- SYSTEM ERROR = An internal system error has occurred.
- PF = Printout follows. Followed by a TST:E911 output message.
- RL = Retry later. May also include:
 - CMP UNAVAILABLE = The test message can not be sent. The communications module processor (CMP) is available.
 - OTHER REQUEST IN PROGRESS = An E911 test query or an ESA request is currently in progress.

5. REFERENCES

Output Message(s):
TST:E911

Other Manual(s):

235-190-115 *Local and Toll System Features*

RC/V View(s):

- 8.1 (OFFICE PARAMETERS)
- 8.22 (SECURED FEATURE UPGRADE)
- 24.7 (DSL AP COMMUNICATIONS DATA)

ID TST:FAC
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests a test (connectivity exercise) of the connection of a remote switching module (RSM) facility (FAC).

A FAC can be a host-remote facility between a host switching module (HSM) and an RSM, or a remote facility between two RSMs. The test does not interfere with stable calls, and may be run on an in-service or out of service (OOS) facility. The request is not honored if a carrier group alarm is present on the RDFI or CDFI.

2. FORMAT

TST:FAC=a-b-c-d;

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number.
- b = Digital line and trunk unit (DLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = RSM digital facilities interface (RDFI) or inter-RSM communication link digital facilities interface (CDFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = FAC number. The FAC number is the T1 facility number on a RDFI or CDFI. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message syntax is valid, but the request conflicts with current system or equipment status. May also include:
 - NOT STARTED UNIT IN GROWTH STATE
 - SM DOES NOT EXIST
 - SM UNEQUIPPED
 - UNIT DOES NOT EXIST
- PF = Printout follows. A TST:FAC output message follows in response to the request.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):
RMV:FAC

Output Message(s):
TST:FAC

Output Appendix(es):
APP:RANGES

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

235-105-220 *Corrective Maintenance*

ID TST:GRC
RELEASE 5E15 and later
COMMAND GROUP RCV
APPLICATION 5

1. PURPOSE

Requests that a global recent change (GRC) test update job be run to verify that the correct updates will be applied.

If the updates are not desired at this time, then when the GRC test update job is completed, backout the updates using the SCHED:GRC input message. After the backout is completed, then reschedule the GRC update job for its original time and date using the SCHED:GRC input message.

2. FORMAT

[1] TST:GRC,NAME=a[,SECT=b],TN=c[-d];
[2] TST:GRC,NAME=a[,SECT=b],MLHG=e[-f][,MEMB=g[-h]];

3. EXPLANATION OF MESSAGE

a = GRC name (up to 10 characters).
b = GRC section number.
c = First telephone number (TN) in the range of lines to be tested.
d = Last TN in range of lines to be tested.
e = First multi-line hunt group (MLHG) number in range to be tested.
f = Last MLHG in range to be tested.
g = First MLHG member number to be tested.
h = Last MLHG member number to be tested.

4. SYSTEM RESPONSE

NG = No good. The request was denied. A GRC:ERROR output message will provide the reason for the failure.
PF = Printout follows. A GRC:STATUS output message will follow indicating the beginning of the operation.

5. REFERENCES

Input Message(s):
REPT:GRC
RMV:GRC
SCHED:GRC

Output Message(s):
GRC:ERROR
GRC:STATUS

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-070-100 *Administration and Engineering Guidelines*
235-118-251 *Recent Change Procedures*

235-118-25x Recent Change Reference

ID TST:GRIDBD
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Tests a specified gated diode crosspoint half-grid board in a line unit model 2; (LU2) or a line unit model 3; (LU3) by running a fabric exerciser routine.

2. FORMAT

TST:GRIDBD=a-b-c-d[,UCL][,RAW][,TLP][,AUD][:PH={e|e&&f}];

3. EXPLANATION OF MESSAGE

AUD = Audit the state of the first and second stage crosspoints and open any crosspoints that were found closed.

RAW = Print data from raw data test failure.

TLP = Output a trouble location procedure (TLP) suspect pack list if a failure occurs.

UCL = Unconditionally execute the test.

a = Switching module number.

b = Line unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

c = Grid number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

d = Board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

e = The number of the diagnostic phase to be performed or the lower limit of a range of phases.

f = The upper limit in the range of diagnostic phases to be performed.

4. SYSTEM RESPONSE

NG = No good. The request has been denied. The message form is valid, but the request conflicts with current status.

PF = Printout follows. Followed by a TST:GRIDBD output message.

5. REFERENCES

Input Message(s):
STP:GRIDBD

Output Message(s):
TST:GRIDBD

Output Appendix(es):
APP:RANGES

ID TST:GRID
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests the fabric exerciser to be run on a line unit grid.

2. FORMAT

TST:GRID=a-b-c[,UCL][,RAW][,AUD][,PH={d[&&e]}][,TLP];

3. EXPLANATION OF MESSAGE

AUD = Audit the state of the crosspoints. Crosspoints that disagree with the software status will be printed and corrected.

RAW = Report the internal software benchmark number in the event of a failure.

TLP = Report a trouble location procedure (TLP) suspect circuit pack list if there is a failure.

UCL = Execute all tests in the phase(s) requested unconditionally.

a = Switching module (SM) number.

b = Line unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

c = Grid number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

d = Number of the phase to be run, or the lower limit of a range of phases.

e = Upper limit of a range of phases to be run.

4. SYSTEM RESPONSE

NG = No good. The request has been denied. The message form is valid but the request conflicts with current status.

PF = Printout follows. The request has been received. The TST:GRID output message will follow.

5. REFERENCES

Output Message(s):
TST:GRID

Output Appendix(es):
APP:RANGES

ID TST:GSMNET
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests status of the CCS message transport (CMT) connectivity between a specified global switching module (GSM) and one/all child non-global switching modules (NGSMs). CMT is the ability to transport CCS messages internally within the switch.

2. FORMAT

TST:GSMNET,[GSM=a],[NGSM=b];

3. EXPLANATION OF MESSAGE

- a = GSM number. If no SM number is specified and only one CCS GSM exists in the office, that GSM will be defaulted. If multiple GSMs exist, then the GSM must be specified. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Specific NGSM (the default is ALL NGSMs). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- PF = The request has been accepted. Followed by the TST:GSMNET output messages.
- NG = No good. May also include:
 - SM # UNEQUIPPED = This response indicates that the input GSM is not an equipped SM. This error is only valid for the input GSM.
 - NOT A GSM = This response indicates that the input GSM is not provisioned as a HOST or ISLAND GSM.
 - NO GSM PROVISIONED = This response indicates that no GSM was specified, and there are no GSMs provisioned in the office.
 - GSM MUST BE SPECIFIED = This response indicates that no GSM was specified, and there is more than one GSM provisioned in the office.
 - NO NGSM PROVISIONED = This response indicates that no NGSM is provisioned for the identified GSM, which should be a transient condition during a growth/degrowth sequence.
 - INVALID NGSM = This response indicates that the NGSM specified to restrict output is not served by the input GSM.
 - TST GSMNET IN PROGRESS = This response indicates that another TST:GSMNET request is underway and this request will not be processed.

5. REFERENCES

Output Message(s):
TST:GSMNET

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-200-116 *Signaling Gateway Common Channel Signaling*

MCC Display Page(s):

1540	GSM CMT STATUS
1541	NGSM CMT STATUS

ID TST:ICCV
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that an international credit card validation (ICCV) Common Channel Signaling System 7 (CCS7) transaction capabilities application part (TCAP) test query be sent to a foreign data base to verify its operation.

2. FORMAT

TST:ICCV=a-b-c,TTYP=d,OPCD=e[, {CLD|ICLD}=f];

3. EXPLANATION OF MESSAGE

- a = Issuer identification number of the telecommunications calling card (89C) number to be queried. This field will be 2-7 digits in length (enter the full card number).
- b = Individual account number of the 89C calling card number to be queried. This includes a check number, if required. This field will be a maximum of 15 digits; however, this field together with the issuer identification number will be 7-19 digits in length.
- c = Personal identification number (PIN). The PIN can be a maximum of 13 digits. If no PIN exists for the card, enter 0.
- d = Translation type. The translation type is used in the TCAP query and indicates to the signaling transfer point (STP) which translation tables should be used to obtain routing information for the query. The translation type is a number from 0 to 255.
- e = Operation code. The operation code specifies which International credit card validation (ICCV) features are active in the switch. Each bit of the 8-bit operation code indicates whether the corresponding ICCV feature is applicable or not in the switch. The bits in order from low to high and their associated features are:

Feature	Bit Value	Bit Position
Basic Validation	1	0
CDM	2	1
CDBS	4	2
Call Gapping	8	3
Geographic Restriction	16	4
Partial Purchase Limit	32	5
Full Purchase Limit	64	6
NOT USED	128	7

The operation code is the sum of the bit values of all applicable ICCV features. For example, if Basic Validation, CDBS, and Geographic Restrictions are applicable, the operation code will have a value of 21, which is the sum of 1, 4, and 16. The valid range is 1-95 because partial purchase limit is not supported. For inward calls, only values 1, 5, 17 and 21 are allowed.

- f = The called number (maximum 15 digits with no prefix). This is either a 10-digit North American numbering plan (NANP) number (that is, NPANXXXXXX) which will be specified by the tag CLD, a 7- to 15-digit international number will be specified by the tag ICLD (such as, CCXXX...XXX) or 0 indicating no called number. If this entry is

omitted, a default value of 0 (no called number) will be used. Note that N11 numbers (such as, 411, 611,911) must be entered as N110000000 in order to distinguish the N11 number from a 3-digit international country code. Note also that customer-initiated card calls to 411 contain the NPA-555-1212 (with calling number's NPA) as the called number in the query to PTT database. Test queries need NPA-555-1212 explicitly specified if the calling number NPA is known.

4. SYSTEM RESPONSE

- NG = No good. Valid value(s):
- CNI NOT AVAILABLE = The test query cannot be sent to the CAS/NCP data base because the common network interface (CNI) or CCS7 links are not available.
 - INVALID CARD NUMBER = The input card number must be at least 7 digits, and at most 19 digits in length. The card number is composed of the issuer identification number and the individual account number (including the check number).
 - INVALID FORMAT FOR DOMESTIC NUMBER. PLEASE USE NPANXX..XXX = The format for a domestic number must be NPANXX..XXX.
 - INVALID FORMAT FOR INTERNATIONAL NUMBER. PLEASE USE CCXXX..XXX = The format for an international number must be CCXXX..XXX without the prefix 01.
 - INVALID ISSUER ID NUMBER = The issuer identification number must be at least 2 digits, and at most 7 digits in length. In addition, the first two digits of the card number must be "89".
 - INVALID OPERATION CODE = The operation code must be in the range of 1 to 95.
 - INVALID PIN = The PIN must be at most 13 digits in length.
 - INVALID TRANSLATION TYPE = The translation type must be a number from 0 to 255.
- PF = Printout follows. The request has been received. Output message TST ICCV will follow.
- RL = Retry later. Valid value(s):
- INTERNAL ERROR = There was a problem reading the RLDS_APP relation (recent change view 8.17 - direct signaling applications), to obtain a subsystem number.
 - TEST IN PROGRESS = Another common channel signaling (CCS) test is in progress.

5. REFERENCES

Input Message(s):

EXC:DSTT
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:INWATS
TST:NCD
TST:RATE

Output Message(s):

EXC:DSTT
TST:BNS
TST:CAS
TST:CAS7
TST:ICCV

TST:CCRD
TST:INWATS
TST:NCD
TST:RATE

RC/V View(s):
8.17 (DIRECT SIGNALING APPLICATIONS)

ID TST:INWATS
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that an inward wide area telecommunications service (INWATS) direct signaling query be sent to the INWATS database to verify its operation. This input message does not support NS800 calls. For NS800 test queries, use the TST:NS800 message.

2. FORMAT

TST:INWATS=a,ONPA=b;

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

- a = INWATS number to be tested. This number must be a string of ten digits which must start with 800, such as 8007654321.
- b = Three-digit area code indicating where 800 number is originated.

4. SYSTEM RESPONSE

- NG = No good. May also include:
- CNI NOT AVAILABLE = The test message can not be sent. The common network interface (CNI) is not operational or is in overload. Check CNI status and wait 10 minutes before requesting another test.
 - INVALID INPUT FIELD a = There is either an invalid character in field 'a', or an incorrect number of digits. There must be 10 digits input in field 'a'.
 - NO REPLY INDEX AVAILABLE = Switch could not send test message because a reply index was not available.
 - REPLY RELATION PROBLEM = Switch could not send test message. A reply index was available, but the relation could not be updated.
- PF = Printout follows. The request has been received. Followed by the TST:INWATS output message.
- RL = Retry later. May also include:
- TEST IN PROGRESS = A common channel signaling (CCS) test is currently in progress.

5. REFERENCES

Input Message(s):

EXC:DSTT
TST:NCD
TST:NS800

Output Message(s):

EXC:DSTT
TST:INWATS
TST:NCD

ID TST:IPNET-A
RELEASE 5E20(1) - 5E21(1)
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests a measurement of the quality of service in an internet protocol (IP) network. The test measures round trip delay (RTD) between a source IP soft hand-off (SHO) protocol handler (PH) or a source network protocol handler (NPH) or a source IP backhaul protocol handler (IPBPH) and a far endpoint. The far endpoint could be another IP SHO PH when the source is IP SHO PH. The far endpoint could be another NPH or IP SHO PH when the source is NPH. The far endpoint could be another IPBPH or base transceiver station (BTS) when the source is IPBPH.

Either a serving IP address or a protocol handler group (PHGRP) can be used as the source and either a far IP address or a far community address (CA) can be used as the far endpoint. Other parameters can be specified on the command line such as the number of packets to send per second, the size of the packets and the number of seconds to send the packets. If these values are not entered, the defaults are 50 packets per second for 60 seconds with a packet size of 44 bytes. Other optional parameters include the far subnetwork (SN), the differentiated service code point (DSCP), the average RTD threshold, the percentage, the percentile RTD threshold and the user datagram protocol (UDP) port. If the far SN is not entered, it will default to the office SN. If the average RTD threshold, percentage, or percentile RTD threshold are not entered, they will default to the values provisioned on the RC/V View 22.32 (PROTOCOL HANDLER GROUP DEFINITION). If the DSCP is not entered, it will default to the high DSCP value provisioned on RC/V View 22.32 for source IP SHO PH, or the DIFF SRV CODE POINT value provisioned on RC/V View 22.32 for source NPH. If the UDP port is not entered, it will default to the network test port 55003 (3456 for IPBPH). If the far UDP port is not entered, it will default to the network test port 55003 (3456 for IPBPH). If the far UDP port is entered with 7, it initiates a loop back test from IPBPH to BTS. It is recommended that no more than 2 executions of the input message TST:IPNET be initiated on the same BTS. It is not constrained in the software and the technician who is using the input message needs to be aware of it.

Several things are verified before the test can officially begin. For example, the test will not be started if there are errors in the input parameters, if the source PH is out of service or if the source PH does not know about the far endpoint. If these problems do not exist, an end to end connectivity check will be initiated. This check is done to ensure the far endpoint is able to receive packets from the source PH as well as route packets back to the source PH. If the end to end connectivity check fails, the test is aborted. If the end to end connectivity check succeeds, the test will officially begin and packets will be sent to the far endpoint.

The far endpoint simply loops the packets back to the source so round trip delay can be calculated.

Average and percentile delays are the key components for this test and each has its own pass or fail value. If the actual average delay is less than or equal to the provisioned or requested average delay threshold, the average delay result will be reported as PASSED. If the actual average delay is more than the provisioned or requested average delay, the average delay result will be reported as FAILED. For percentile round trip delay, the percentage value is coupled with the percentile delay threshold. If the provisioned or requested percentage of packets received are within the percentile delay threshold, the percentile delay result will be reported as PASSED. If the provisioned or requested percentage of packets received are not within the percentile delay threshold, the percentile delay result will be reported as FAILED.

If a switch occurs in the middle of this test and not all of the packets have been sent, the test will abort. However, if the switch occurs after all the packets have been sent, the test will time out.

2. FORMAT

TST:IPNET,{SERVIP=a~|~PHGRP=b-c-d},{FARIP=e~|~FARCA=f}[,PCKTS=g][,DUR=h]
[,MSGSIZE=i][,FARSN=j][,DSCP=k][,AVGDELAY=l][,PERDELAY=m][,PERCENT=n][,UDP=o][,FARUDP=p];

3. EXPLANATION OF MESSAGE

- a = Serving IP address.
- b = Switching module (SM). Refer to the APP:RANGES appendix in the Appendixes section of this manual.
- c = Packet switch unit (PSU). Refer to the APP:RANGES appendix in the Appendixes section of this manual.
- d = Protocol handler group (PHGRP). Refer to the APP:RANGES appendix in the Appendixes section of this manual.
- e = Far end IP address.
- f = Far end PSU community address of the PSU (1 - 254), this option is only for SHOPH.
- g = Number of test packets to be sent to the far end (1 - 50).
- h = Test duration in seconds (1 - 300).
- i = Size of the payload in each packet (44 - 1400 bytes for IP SHO PH or IPBPH, 44 - 400 bytes for NPH).
- j = Far end subnetwork (0 - 3).
- k = Differentiated service code point (decimal 0 - 63 or hexadecimal h'0 - h'3F).
- l = Average delay of the packets in microseconds (500 - 200000).
- m = Percentile delay of the percentage of packets in microseconds (500 - 200000).
- n = Percentage of packets that will be received within the percentile delay range (1 - 100).
- o = User datagram protocol (55002 or 55003).
- p = FAR user datagram protocol (7 for BTS, 3456 for IPBPH, 55002 or 55003 for NPH or IP SHO PH)

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by one or more TST:IPNET output message.
- NG = No good. May also include:
 - DATABASE ERROR = The request has been denied. The message is valid but an internal database error has prevented any action from being taken.
 - NOT A VALID SOURCE = The request has been denied. The message is valid but the source input is invalid.
 - SERVING IP ADDR NOT FOUND = The request has been denied. The message is valid but the serving IP address is invalid.
- RL = Retry later. May also include:
 - CMP UNAVAILABLE = The request has been denied. The message is valid but the communication module processor (CMP) is unavailable.
 - SM UNAVAILABLE = The request has been denied. The message is valid but the SM is not available.

5. REFERENCES

Output Message(s):
TST:IPNET

Input Appendix(es):
APP:RANGES

ID TST:IPNET-B
RELEASE 5E22(1) and later
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests a measurement of the quality of service in an internet protocol (IP) network. The test measures round trip delay (RTD) between a source IP soft hand-off (SHO) protocol handler (PH) or a source network protocol handler (NPH) or a source IP backhaul protocol handler (IPBPH) and a far endpoint. The far endpoint could be another IP SHO PH when the source is IP SHO PH. The far endpoint could be another NPH or IP SHO PH when the source is NPH. The far endpoint could be another IPBPH or base transceiver station (BTS) when the source is IPBPH.

Either a serving IP address or a protocol handler group (PHGRP) can be used as the source and either a far IP address or a far community address (CA) can be used as the far endpoint. Other parameters can be specified on the command line such as the number of packets to send per second, the size of the packets and the number of seconds to send the packets. If these values are not entered, the defaults are 50 packets per second for 60 seconds with a packet size of 44 bytes. Other optional parameters include the far subnetwork (SN), the differentiated service code point (DSCP), the average RTD threshold, the percentage, the percentile RTD threshold and the user datagram protocol (UDP) port. If the far SN is not entered, it will default to the office SN. If the average RTD threshold, percentage, or percentile RTD threshold are not entered, they will default to the values provisioned on the RC/V View 22.32 (PROTOCOL HANDLER GROUP DEFINITION). If the DSCP is not entered, it will default to the high DSCP value provisioned on RC/V View 22.32 for source IP SHO PH, or the DIFF SRV CODE POINT value provisioned on RC/V View 22.32 for source NPH. If the UDP port is not entered, it will be set to the network test port, which by default is 55003 for NPH and IP SHO PH (3456 for IPBPH). If the far UDP port is not entered, it will be set to the network test port, which by default is 55003 for NPH and IP SHO PH (3456 for IPBPH). If the far UDP port is entered with 7, it initiates a loop back test from IPBPH to BTS. It is recommended that no more than 2 executions of the input message TST:IPNET be initiated on the same BTS. It is not constrained in the software and the technician who is using the input message needs to be aware of it.

Several things are verified before the test can officially begin. For example, the test will not be started if there are errors in the input parameters, if the source PH is out of service or if the source PH does not know about the far endpoint. If these problems do not exist, an end to end connectivity check will be initiated. This check is done to ensure the far endpoint is able to receive packets from the source PH as well as route packets back to the source PH. If the end to end connectivity check fails, the test is aborted. If the end to end connectivity check succeeds, the test will officially begin and packets will be sent to the far endpoint.

The far endpoint simply loops the packets back to the source so round trip delay can be calculated.

Average and percentile delays are the key components for this test and each has its own pass or fail value. If the actual average delay is less than or equal to the provisioned or requested average delay threshold, the average delay result will be reported as PASSED. If the actual average delay is more than the provisioned or requested average delay, the average delay result will be reported as FAILED. For percentile round trip delay, the percentage value is coupled with the percentile delay threshold. If the provisioned or requested percentage of packets received are within the percentile delay threshold, the percentile delay result will be reported as PASSED. If the provisioned or requested percentage of packets received are not within the percentile delay threshold, the percentile delay result will be reported as FAILED.

If a switch occurs in the middle of this test and not all of the packets have been sent, the test will abort. However, if the switch occurs after all the packets have been sent, the test will time out.

2. FORMAT

TST:IPNET,{SERVIP=a~|~PHGRP=b-c-d},{FARIP=e~|~FARCA=f}[,PCKTS=g][,DUR=h]
[,MSGSIZE=i][,FARSN=j][,DSCP=k][,AVGDELAY=l][,PERDELAY=m][,PERCENT=n][,UDP=o][,FARUDP=p];

3. EXPLANATION OF MESSAGE

- a = Serving IP address.
- b = Switching module (SM). Refer to the APP:RANGES appendix in the Appendixes section of this manual.
- c = Packet switch unit (PSU). Refer to the APP:RANGES appendix in the Appendixes section of this manual.
- d = Protocol handler group (PHGRP). Refer to the APP:RANGES appendix in the Appendixes section of this manual.
- e = Far end IP address.
- f = Far end PSU community address of the PSU (1 - 254), this option is only for SHOPH.
- g = Number of test packets to be sent to the far end (1 - 50).
- h = Test duration in seconds (1 - 300).
- i = Size of the payload in each packet (44 - 1400 bytes for IP SHO PH or IPBPH, 44 - 400 bytes for NPH).
- j = Far end subnetwork (0 - 3).
- k = Differentiated service code point (decimal 0 - 63 or hexadecimal h'0 - h'3F).
- l = Average delay of the packets in microseconds (500 - 200000).
- m = Percentile delay of the percentage of packets in microseconds (500 - 200000).
- n = Percentage of packets that will be received within the percentile delay range (1 - 100).
- o = User datagram protocol port (must be network test port number for NPH and IP SHO PH, can be network test port number or OA&M port number for IPBPH).
- p = FAR user datagram protocol port (7 for BTS, 3456 for IPBPH, must be network test port number for NPH or IP SHO PH).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by one or more TST:IPNET output message.
- NG = No good. May also include:
 - DATABASE ERROR = The request has been denied. The message is valid but an internal database error has prevented any action from being taken.
 - NOT A VALID SOURCE = The request has been denied. The message is valid but the source input is invalid.
 - SERVING IP ADDR NOT FOUND = The request has been denied. The message is valid but the serving IP address is invalid.
- RL = Retry later. May also include:
 - CMP UNAVAILABLE = The request has been denied. The message is valid but the communication module processor (CMP) is unavailable.
 - SM UNAVAILABLE = The request has been denied. The message is valid but the SM is not available.

5. REFERENCES

Output Message(s):
TST:IPNET

Input Appendix(es):
APP:RANGES

ID TST:LAC
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that a line applications for consumers (LAC) Common Channel Signaling System 7 (CCS7) transaction capabilities application part (TCAP) test query be sent to the number 2 LAC (2LAC)/network control point (NCP) to verify its operation.

2. FORMAT

TST:LAC={BLG=a|BNS=a|CCRD=a-b},SW=c[,TTYP=d][,{CLD|ICLD}=e]
[, {CLG|ICLG}=f][,STD=g][,XCAP=h][,XMODE=i][,XRATE=j]
[, {OLI|II}=k][,OLS=l][,OST=m][,CTYP=n][,CSI=o]
[,RSP=p][,NAI=q][,LIDB=r][,CICEXP=s]

3. EXPLANATION OF MESSAGE

- a = Billing number. For sent-paid queries, use the BLG= keyword with a phone number as the billing number. For billed number screening (BNS) queries, use the BNS= keyword with a phone number. For card queries (CCRD), use the CCRD= keyword with a 10-digit calling card account number.
- b = Personal identification number (PIN). This is included for card queries only.
- c = Switch type. This input request can emulate queries that would normally originate from several switch types. Valid value(s):
- | | |
|--------|--|
| 4ESS | = 4ESS [™] switch. |
| 5ETOLL | = 5ESS [®] toll switch. |
| OSPS | = Operator services position system (OSPS) switch. |
- d = Translation type. This is a number from 0 to 255 which is used by number 2 signal transfer point (2STP) routing tables to determine the destination of the query.
- e = Called number. For international numbers, use the ICLD= label with a 4- to 15-digit international number. For North American numbering plan (NANP) numbers use the CLD= label with a 10-digit phone number.
- f = Calling number. For international numbers, use the ICLG= label with a 4- to 15-digit international number. For NANP numbers use the CLG= label with a 10-digit phone number.
- g = Coding standard. If no value is entered for coding standard, but a data is entered for one or more of transfer capability, transfer mode, or transfer rate, then ITU-TS will be sent in the query. If no values are supplied for any of these fields, then this field will not be sent in the query. Valid value(s):
- | | |
|-------|--|
| CCITT | = International Telecommunication Union - Telecommunication Standardization Sector (ITU-TS) (formerly CCITT) standard. |
| INTL | = Reserved for other international standards. |
| NATL | = National standard. |
- h = Transfer capability. If no value is entered for transfer capability, but a data is entered for one or more of coding standard, transfer mode, or transfer rate, then SPEECH will be sent in the query. If no values are supplied for any of these fields, then this field will not be sent in the query. Valid value(s):
- | | |
|-----|------------------|
| 3K | = 3.1 kHz audio. |
| 7K | = 7 kHz audio. |
| 15K | = 15 kHz audio. |

- DIG = Unrestricted digital information.
RDIG = Restricted digital information.
SPEECH = Speech.
VIDEO = Video.
- i = Transfer mode that was input. If no value is entered for transfer mode, but a data is entered for one or more of coding standard, transfer capability, or transfer rate, then CIRCUIT will be sent in the query. If no values are supplied for any of these fields, then this field will not be sent in the query.
- CIRCUIT = Circuit mode.
PACKET = Packet mode.
- j = Transfer rate. If no value is entered for transfer rate, but a data is entered for one or more of coding standard, transfer capability, or transfer mode, then CHSIZE will be sent in the query. If no values are supplied for any of these fields, then this field will not be sent in the query. Valid value(s):
- 64K = 64 Kbit/second.
384K = 384 Kbit/second.
1500K = 1536 Kbit/second.
1900K = 1920 Kbit/second.
CHSIZE = Transfer rate dictated by the size of the channel.
- k = Originating line information (OLI) or automatic number identification (ANI) information digits (II). For OLI data use the OLI= keyword. For II data use the II= keyword. This field is only permitted for CCRD and BNS queries. Valid value(s):
- 800CALL = Translated 800 call.
AIOD = Automatic input/output dialing (AIOD) listed directory number sent.
ANIFAIL = ANI failure.
COIN = Coin line.
NONCOIN = Identified line (coin or noncoin).
COINLESS = Coinless, hospital, or inmate call.
HOTEL = Hotel without room identification.
IDLINE = Identified line with no special treatment.
RESTR = Interlata restricted.
ONI = Operator number identified (multiparty).
OPER = Operator handled.
OUTWATS = Outbound wide area transport (OUTWATS) line.
RCOINLESS = Interlata restricted coinless line.
RHOTEL = Interlata restricted hotel line.
TEST = Test call.
VPN = Virtual private network line.
- l = Originating line screening (OLS) information. This is a number from 0 to 999. This field is only permitted for CCRD and BNS queries.
- m = Originating station type (OST). This field is only permitted for CCRD and BNS queries. Valid value(s):
- ACQS = Automatic charge quotation system (ACQS) phone.
ACQSHOTL = ACQS hotel phone.
NAHOTL = Non-ACQS hotel phone.
NCNPUB = Non-coin public phone.
CNPST = Post-pay coin phone.
CNPRE = Pre-pay coin phone.
UNKN = Unknown station type.
- n = Call type. This field is required for BNS queries, and is not permitted for CCRD or sent-paid queries. Valid value(s):
- COLLECT = BNS collect call.

- PAID = BNS sent paid call.
THIRD = BNS bill to third number call.
- o = Carrier selection information (CSI). If no CSI value is entered, "UNKNOWN" will be used. Valid value(s):
- INPUT = Selected carrier presubscribed and input by calling party.
NOIND = Selected carrier presubscribed and no indication of input by calling party.
NOTINPUT = Selected carrier presubscribed and no input by calling party.
NOTPRE = Selected carrier not presubscribed and input by calling party.
UNKNOWN = No indication.
- p = 'Response required' indicator. A value of "YES" indicates that the 2LAC/NCP must always return a reply in response to the test query. A value of "NO" indicates that the 2LAC/NCP must only return a reply for deny and error cases. If no value is entered, a default value of "YES" will be used.
- q = 'Network access interrupt (NAI)' indicator. A value of "YES" indicates that the 2LAC/NCP should apply NAI processing to the query. A value of "NO" indicates that NAI processing should not be applied. If no value was input, a default value of "YES" will be used. A value of "NO" is only permitted for CCRD and BNS queries.
- r = Line information database (LIDB) indicator. A value of YES indicates that the 2LAC/NCP should forward the calling card or BNS information contained within the query to a LIDB for processing. A value of NO indicates that the query should not be forwarded to a LIDB. If no input was given for CCRD or BNS queries, YES will be used. For sent-paid queries, this field must be NO.
- s = Carrier expansion indicator. The CICEXP keyword indicates that the switch can accept expanded carrier information. This keyword is only permitted with CCRD or BNS queries.

4. SYSTEM RESPONSE

- NG = No good. May also include:
- CICEXP NOT ALLOWED = The carrier expansion indicator is only permitted with CCRD OR BNS queries.
 - CLD OR ICLD NUMBER REQUIRED = For sent-paid calls, a NANP or international called number is required.
 - CNI NOT AVAILABLE = The test query cannot be sent to the 2LAC/NCP database because the common network interface (CNI) or CCS7 links are not available.
 - CTYP NOT ALLOWED = The call type parameter is not allowed with CCRD or sent-paid queries.
 - CTYP REQUIRED WITH BNS = The call type parameter is required with BNS queries.
 - FEATURE NOT AVAILABLE = The requested action failed. The feature required to process the request is not present in the switch or the given module.
 - INVALID BILLING NUMBER = The billing number must be entered with either the BLG, CCRD, or BNS keywords.
 - INVALID BLG NUMBER = The billing number must be a 10-digit NANP number.
 - INVALID BNS NUMBER = The billed number screening number must be a 10-digit NANP number.
 - INVALID CLD NUMBER = The called number must be a 10-digit NANP number.
 - INVALID CLG NUMBER = The calling number must be a 10-digit NANP number.
 - INVALID CCRD NUMBER = The calling card number must be a 10-digit number.
 - INVALID ICLD NUMBER = The international called number must be a 4- to 15-digit international number.
 - INVALID ICLG NUMBER = The international calling number must be a 4- to 15-digit international number.
 - INVALID PIN = The calling card PIN must be a 4-digit number.

- INVALID TRANSLATION TYPE = The translation type must be a number between 0 and 255.
- LIDB MUST BE NO = The 'LIDB requested' indicator cannot be "YES" for sent-paid queries. Either enter LIDB=NO, or omit the parameter entirely and use the default.
- NAI MAY BE NO ONLY WITH CCRD OR BNS = The 'NAI indicator' must be "YES" for sent-paid queries.
- OLS OUT OF RANGE = The OLS must be a number within the range of 0 to 999 (inclusive).
- OLS NOT ALLOWED = The OLS parameter is not allowed with sent-paid queries.
- OST ONLY ALLOWED WITH CCRD OR BNS = The originating station type parameter is not allowed with sent-paid queries.

PF = Printout follows. The request has been received. Followed by the TST:LAC output message.

RL = Retry later. May also include:

- INTERNAL ERROR = There was a problem reading the RLDS_APP relation (Recent Change View 8.17), to obtain the subsystem number.
- TEST IN PROGRESS = Another common channel signaling (CCS) test is in progress.

5. REFERENCES

Input Message(s):

EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:RATE

Output Message(s):

EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:LAC
TST:RATE

RC/V View(s):

8.17 (DIRECT SIGNALING APPLICATIONS)

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID TST:LEN
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that a specified path be exercised through the line unit path exerciser (LUPEX). The path consists of a line equipment number (LEN), A-link, B-link, and a high level service circuit (HLSC). LUPEX exercises line unit (LU) types LU1, LU2 and LU3.

LUPEX will only run on a path where the A-link and B-link are both in service and idle, or both out of service. LUPEX will only run on lines in the pre-cutover state if the line is marked as a test line. LUPEX will not run on busy lines or lines that are marked in the office-dependent data (ODD) as incompatible equipment, private branch exchange (PBX), or SLC[®] PBX.

Warning: *While LUPEX is running, the customer whose LEN is seized will be denied service. None of the equipment specified by the input message will be available during the testing. This message should not be executed using HLSCs known to fail diagnostics as it could cause erroneous results. Also, the execution of this input message using the RAW and UCL options with the maximum RPT value may generate in excess of 1000 receive-only printer messages if many failures occur. This may delay more critical output messages.*

2. FORMAT

TST:LEN=a-b-c-d-e-f,ALINK=g,BLINK=h-i,HLSC=j-k[,RPT=[1]][,PH=m[&&n]]
[,RAW][,UCL];

3. EXPLANATION OF MESSAGE

- Note: Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.
- RAW = Produce an output message for every phase failure.
- RPT = Repeat.
- UCL = Execute all requested phases unconditionally without terminating on the first error before continuing with the next repeat iteration.
- a = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Line unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Grid number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Grid board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Grid board switch number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = Grid board switch level number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- g = Grid board A-link number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- h = B-link service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

- i = Grid board B-link number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- Note: A B-link is equivalent to a channel.
- j = HLSC service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- k = HLSC number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- l = Number of times the exercise is to be repeated (1-100, default is 1).
- m = Phase number or lower limit for range of phase numbers (1-100, default is 1 through 9). Phases will be executed sequentially.
- Note: When a phase range starting above phase 3 is requested, phases 1, 2, and 3 will also run as low-level tests. They will not, however, be reported. Also, phases 94 through 99 establish and hold the path for up to 15 minutes maximum and can not use the repeat option.

Phase	Description
01	Execute false cross to ground test.
02	Execute power cross test.
03	Execute foreign potential test.
04	Execute scan cut-off stuck open and scan origination/termination tests.
05	Execute scan cut-off stuck closed test.
06	Execute first stage crosspoint stuck open test.
07	Execute first stage crosspoint stuck closed test.
08	Execute second stage crosspoint stuck open test.
09	Execute second stage crosspoint stuck closed test.
10-93	Not used.
94	Execute reverse channel battery hold path test.
95	Execute forward channel battery hold path test.
96	Execute first and second stage crosspoint hold path test.
97	Execute ring scan crosspoint hold path test.
98	Execute tip scan crosspoint hold path test.
99	Execute tip and ring scan crosspoint hold path test.
100	Not used.

- n = Upper limit of a range of phase numbers (1-100).

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message form is valid but the request conflicts with current status or the unit does not exist.
- PF = Printout follows. The request has been received. Followed by the TST:LEN output message.
- RL = Retry later. The request has been denied due to unavailable system resources.

5. REFERENCES

Input Message(s):
 ABT:TST-LEN

OP:OOS
STP:TST-LEN

Output Message(s):
ABT:TST-LEN
STP:TST-LEN
TST:LEN

Input Appendix(es):
APP:RANGES

Other Manual(s):
235-105-220 *Corrective Maintenance*

ID TST:LINE-ELS
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests electronic loop segregation (ELS) to be run on the specified line or hardware group of lines.

Due to the introduction of Local Number Portability - NPA/NXX feature 5ESS® office will support unique and non-unique office codes (NXX). Multiple NPAs can have same office codes. If the office code is non-unique, then the user has to specify 10 digit DNs including Area Code to correctly specify a DN. But if the office code is unique, then 7 digits are sufficient to correctly represent a DN.

The four formats all run the same tests. Format 1 specifies that the test be run on one line identified by the directory number (DN). Format 2 specifies that the test be run on one member of a multi-line hunt group (MLHG). Format 3 specifies that the test be run on a line or group of lines in a line unit model 1, 2, or 3. Format 4 specifies that the test be run on a line or group of lines in an integrated services line unit (ISLU) or a remote ISLU (RISLU). Format 5 specifies that the test be run on a line or group of lines in an integrated services line unit model 2 (ISLU2) or a remote ISLU2 (RISLU). Format 6 specifies that the test be run on a line or group of lines in an access interface unit (AIU).

2. FORMAT

[1] TST:LINE,ELS,DN=a[-n];
[2] TST:LINE,ELS,MLHG=b-c;
[3] TST:LINE,ELS,LEN=d-e-f-g[-h[-i]];
[4] TST:LINE,ELS,LCEN=d-k-l-m;
[5] TST:LINE,ELS,LCKEN=d-o-l-p[-q];
[6] TST:LINE,ELS,AIUEN=d-r-s-t;

3. EXPLANATION OF MESSAGE

DN = Directory number.

LCEN = Integrated services (line unit) equipment number.

LCKEN = Line circuit equipment number.

LEN = Line equipment number.

MLHG = Multi-line hunt group and member identifier. Multi-line hunt group and member numbers of lines which reside on integrated SLC® remote terminals should not be used.

AIUEN = Access interface unit equipment number.

a = Directory number of the line to be tested. Include NPA for non-unique office code DNs, and NPA not required for unique office code DNs. Directory numbers of lines which reside on integrated SLC remote terminals should not be used.

b = Hunt group number.

c = Member number.

d = Switching module (SM) number.

e = Line unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

f = Grid number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

- g = Grid pack number (LU1, LU2, LU3). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual. Valid value(s):
ALL = If ALL is specified for variable 'g', all 64 lines in the grid will be tested and variables 'h' and 'i' should be omitted.
- h = Switch number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual. Valid value(s):
ALL = If ALL is specified for variable 'h', all 32 lines on the grid board will be tested and variable 'i' should be omitted.
- i = Level number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual. Valid value(s):
ALL = If ALL is specified for variable 'i', the four lines on the specified switch will be tested.
- k = Integrated services line unit (ISLU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- l = Line group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- m = Line card number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual. Valid value(s):
ALL = If ALL is specified for variable 'm', all 31 lines in the line group will be tested.
- n = Member number of the MLHG or line time slot bridging (LTSB) line. For MLHG the DN specified should be the main DN for the group and the member number specifies which member of the group will be tested. For LTSB a member number of 1 will test the lead line and a member number of 2 will test the associate line. If no member number is specified, for 1-DN LTSB, the lead line will be tested. If no member number is specified, for 2-DN LTSB, the line associated with the DN entered will be tested.
- o = Integrated services line unit-2 (ISLU2) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- p = Line board number Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
ALL = If ALL is specified for variable 'p', all lines on the line group will be tested and variable 'q' should be omitted.
- q = Line circuit number Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
ALL = If ALL is specified for variable 'q', all lines on the line board will be tested.
- r = Access interface unit equipment number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- s = AIU pack number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- t = AIU circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual. Valid value(s):
ALL = If ALL is specified for variable 't', all lines in the pack will be tested.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message form is valid but the request conflicts with current status.

PF = Printout follows. The request has been received. Output message TST:LINE-ELS will follow.

5. REFERENCES

Input Message(s):
STP:TST-ELS

Output Message(s):
TST:LINE-ELS

ID TST:LNP
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that an Operator Services Position System (OSPS) local number portability (LNP) common channel signaling system 7 (CCS7) transaction capabilities application part (TCAP) test query be sent to the LNP/network control point (NCP) data base to verify its operation.

2. FORMAT

TST:LNP,TTYP=d[,BLG=a][,CLD=b][,CLG=c];

3. EXPLANATION OF MESSAGE

The test query should contain any combination of BLG and/or CLD and/or CLG number(s) as long as at least one of the three numbers is specified.

- a = Billing number. This is a 10-digit North American numbering plan (NANP) number.
- b = Called number. This is a 10-digit North American numbering plan (NANP) number.
- c = Calling number. This is a 10-digit North American numbering plan (NANP) number.
- d = Translation type. The translation type is used in the TCAP query to indicate to the signaling transfer point (STP) which translation tables should be used to obtain routing information for the query. The translation type is a number from 0 to 255.

4. SYSTEM RESPONSE

- NG = No good. May also include:
 - CNI NOT AVAILABLE = The test query cannot be sent to the LNP/NCP database because the common network interface (CNI) or CCS7 links are not available.
 - FEATURE NOT AVAILABLE = The requested action failed. The feature required to process the request is not present in the switch or the given module.
 - INVALID BILLING NUMBER (10 DIGITS ONLY) = The billing number must be a 10-digit NANP number.
 - INVALID CALLED NUMBER (10 DIGITS ONLY) = The called number must be a 10-digit NANP number.
 - INVALID CALLING NUMBER (10 DIGITS ONLY) = The calling number must be a 10-digit NANP number.
 - INVALID TRANSLATION TYPE = The translation type must be a number from 0 to 255.
 - NO NUMBER IN QUERY = At least one 10 digit NANP number must be specified in the test query.
- PF = Printout follows. The request has been received. Output message TST:LNP will follow.
- RL = Retry later. May also include:
 - INTERNAL ERROR = There was a problem reading the RLDS_APP relation (Recent Change/Verify View 8.17), to obtain the subsystem number.
 - TEST IN PROGRESS = Another common channel signaling (CCS) test is in progress.

5. REFERENCES

Input Message(s):

EXC:DSTT
TST:BNS
TST:CCRD
TST:ICCV
TST:INWATS
TST:RATE

Output Message(s):

EXC:DSTT
TST:BNS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:LNP
TST:RATE
TST:SDAP

RC/V View(s):

8.17 (DIRECT SIGNALING APPLICATIONS)

ID TST:MAPTQ-A
RELEASE 5E16(2) only
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that a global system for mobile communications (GSM) mobile application part (MAP) test query message be sent to the home location register (HLR).

2. FORMAT

TST:MAPTQ,MSISDN=a,GSM=b[,NBRPLN=c][,NFORWD=d]...
...[,INTTYPE=e][,FORWDREASON=f][,GLOBTITLE=g]...
...[,TRANSTYPE=h];

3. EXPLANATION OF MESSAGE

- a = Mobile station international ISDN (MSISDN) number consisting of 10-11 digits. Each digit is in the range of 0-9.
- b = Global switching module number (range of 1-192).
- c = MSISDN numbering plan. Valid value(s):
- E164 = ISDN/telephony numbering plan [International Telecommunication Union - Telecommunication Standardization Sector (ITU-TS) (formerly CCITT) Recommendation E.164].
 - E212 = Land mobile numbering plan [ITU-TS (formerly CCITT) Recommendation E.212].
 - F69 = Telex numbering plan [ITU-TS (formerly CCITT) Recommendation F.69].
 - NATIONAL = National numbering plan.
 - PRIVATE = Private numbering plan.
 - UNKNOWN = Unknown.
 - X121 = Data numbering plan [ITU-TS (formerly CCITT) Recommendation X.121].
- d = Number of forwardings (range of 1-5).
- e = Interrogation type. Valid value(s):
- BASICCALL = Basic call.
 - FORWARDING = Forwarded call.
- f = Forwarding reason. Valid value(s):
- BUSY = The mobile subscriber is busy.
 - NOREPLY = There is no reply from the mobile subscriber.
 - NOTREACHABLE = The mobile subscriber is not reachable.
- g = Global title consisting of 10-11 digits. Each digit is in the range of 0-9.
- h = Translation type (range of 0-255).

4. SYSTEM RESPONSE

- NG = No good. May also include:
- CCS MESSAGE TRANSPORT PATH UNAVAILABLE = SS7 PSU signaling links are not available.
 - FAILED TO READ RLDS_APP = Failed to read the relation RLDS_APP using the GSM MAP application as the key. Refer to RC/V View 8.17 (DIRECT SIGNALLING APPLICATION).
 - FAILED TO READ RLGTS_ADDR = Failed to read the RLGTS_ADDR relation.

- GLOBAL SM IS INVALID = The entered global switching module is either invalid or is not provisioned in the office.
 - GSM MAP NOT AVAILABLE = The GSM MAP functionality has not been provisioned. Refer to RC/V Views 8.15 (CCS OFFICE PARAMETERS), 8.17, and 8.42 (CCS TCAP APPLICATION).
 - INVALID DATA IN RLGTS_ADDR = There is invalid data in the rlgts_addr tuple. Refer to RC/V View 8.15.
 - INVALID GLOBTITLE DIGITS = There is an unrecognized digit in the global title. The valid range of a digit is 0-9.
 - INVALID GLOBTITLE NUMBER OF DIGITS = The number of digits in the GLOBTITLE parameter is out of range. Enter 10-11 digits.
 - INVALID MSISDN DIGITS = There is an unrecognized digit in the MSISDN parameter. The valid range of a digit is 0-9.
 - INVALID MSISDN NUMBER OF DIGITS = The number of digits in the MSISDN parameter is out of range. Enter 10-11 digits.
 - NO GLOBAL SM IN OFFICE = There is no global switching module in this office.
- NO = The request is not allowed. May also include:
- FEATURE NOT AVAILABLE = The feature associated with the requested functionality must be purchased before attempting to send the particular test query. All GSM MAP test queries require that the GSM MAP feature must be purchased.
- OK = Good. The request was accepted.
- PF = Printout follows. Followed by a TST:MAPTQ or TST:MAPTQ-FAIL output message.
- RL = Retry later. May also include:
- FAILED TO SEND GSM MAP MESSAGE = The GSM MAP test query message could not be sent to the HLR.
 - INTERNAL ERROR = Encoding of the GSM MAP test query failed.
 - OVERLOAD CONDITION IN CCS MESSAGE TRANSPORT PATH = SS7 PSU signaling links are congested.
 - TEST IN PROGRESS = Another GSM MAP test query is currently in progress. Wait for that test query transaction to complete before requesting another test.

5. REFERENCES

Output Message(s):

TST:MAPTQ

TST:MAPTQ-FAIL

RC/V View(s):

8.15 CCS OFFICE PARAMETERS

8.17 DIRECT SIGNALLING APPLICATION

8.42 CCS TCAP APPLICATION

ID TST:MAPTQ-B
RELEASE 5E18(1) and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that a global system for mobile communications (GSM) mobile application part (MAP) test query message be sent to the home location register (HLR).

2. FORMAT

TST:MAPTQ,MSISDN=a,GSM=b[,NBRPLN=c][,NFORWD=d]...
...[,INTTYPE=e][,FORWDREASON=f][,GLOBTITLE=g]...
...[,TRANTYPE=h];

3. EXPLANATION OF MESSAGE

- a = Mobile station international ISDN (MSISDN) number consisting of 10-11 digits. Each digit is in the range of 0-9.
- b = Global switching module number (range of 1-192).
- c = MSISDN numbering plan. Valid value(s):
- E164 = ISDN/telephony numbering plan [International Telecommunication Union - Telecommunication Standardization Sector (ITU-TS) (formerly CCITT) Recommendation E.164].
 - E212 = Land mobile numbering plan [ITU-TS (formerly CCITT) Recommendation E.212].
 - F69 = Telex numbering plan ITU-TS (formerly CCITT) Recommendation F.69].
 - NATIONAL = National numbering plan.
 - PRIVATE = Private numbering plan.
 - UNKNOWN = Unknown.
 - X121 = Data numbering plan [ITU-TS (formerly CCITT) Recommendation X.121].
- d = Number of forwardings (range of 1-5).
- e = Interrogation type. Valid value(s):
- BASICCALL = Basic call.
 - FORWARDING = Forwarded call.
- f = Forwarding reason. Valid value(s):
- BUSY = The mobile subscriber is busy.
 - NOREPLY = There is no reply from the mobile subscriber.
 - NOTREACHABLE = The mobile subscriber is not reachable.
- g = Global title consisting of 10-11 digits. Each digit is in the range of 0-9.
- h = Translation type (range of 0-255).

4. SYSTEM RESPONSE

- NG = No good. May also include:
- CCS MESSAGE TRANSPORT PATH UNAVAILABLE = SS7 PSU signaling links are not available.
 - FAILED TO READ RLDS_APP = Failed to read the relation RLDS_APP using the GSM MAP application as the key. Refer to RC/V View 8.17 (DIRECT SIGNALLING APPLICATION).

- GLOBAL SM IS INVALID = The entered global switching module is either invalid or is not provisioned in the office.
 - GSM MAP NOT AVAILABLE = The GSM MAP functionality has not been provisioned. Refer to RC/V Views 8.15 (CCS OFFICE PARAMETERS), 8.17, and 8.42 (CCS TCAP APPLICATION).
 - INVALID DATA IN GLGTS_ADDR = There is invalid data in the GLGTS_ADDR global parameter. Refer to RC/V View 8.15.
 - INVALID GLOBTITLE DIGITS = There is an unrecognized digit in the global title. The valid range of a digit is 0-9.
 - INVALID GLOBTITLE NUMBER OF DIGITS = The number of digits in the GLOBTITLE parameter is out of range. Enter 10-11 digits.
 - INVALID MSISDN DIGITS = There is an unrecognized digit in the MSISDN parameter. The valid range of a digit is 0-9.
 - INVALID MSISDN NUMBER OF DIGITS = The number of digits in the MSISDN parameter is out of range. Enter 10-11 digits.
 - NO GLOBAL SM IN OFFICE = There is no global switching module in this office.
- NO = The request is not allowed. May also include:
- FEATURE NOT AVAILABLE = The feature associated with the requested functionality must be purchased before attempting to send the particular test query. All GSM MAP test queries require that the GSM MAP feature must be purchased.
- OK = Good. The request was accepted.
- PF = Printout follows. Followed by a TST:MAPTQ or TST:MAPTQ-FAIL output message.
- RL = Retry later. May also include:
- FAILED TO SEND GSM MAP MESSAGE = The GSM MAP test query message could not be sent to the HLR.
 - INTERNAL ERROR = Encoding of the GSM MAP test query failed.
 - OVERLOAD CONDITION IN CCS MESSAGE TRANSPORT PATH = SS7 PSU signaling links are congested.
 - TEST IN PROGRESS = Another GSM MAP test query is currently in progress. Wait for that test query transaction to complete before requesting another test.

5. REFERENCES

Output Message(s):

TST:MAPTQ

TST:MAPTQ-FAIL

RC/V View(s):

8.15 CCS OFFICE PARAMETERS

8.17 DIRECT SIGNALLING APPLICATION

8.42 CCS TCAP APPLICATION

ID TST:MP
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests a test of a modem pool (MP).

Format 1 tests one or two modem pool members (MPMs). Format 2 tests an entire modem pool group (MPG) by specifying the multi-line hunt group number of the MPG or a range of MPMs within an MPG. Format 3 tests an entire MPG by specifying the modem pool access directory number (DN) of the MPG (that is, a DN that an analog user would dial to reach an X.25 terminating packet-service through the modem pool).

2. FORMAT

[1] TST:MP,MPM=a-b[,MPMB=a-f][,TYPE=d];
[2] TST:MP,MPG=a[-b&&c][,TYPE=d];
[3] TST:MP,DN=e[,TYPE=d];

3. EXPLANATION OF MESSAGE

An MPG is a multi-line hunt group (MLHG). An MLHG is identified by both its group number and MLHG listed DN. An MPM is identified by the group number and member number. A modem pool test is run between two MPMs at a time. If the input message specifies a single MPM to be tested, the switch will select another MPM from the same MPG to test the first one against, and the selected member will be idle in-service-manual or in-service-auto (IS MAN/IS AUTO). If there is a member that is in-service-forced (IS FRCD), then that member will not be selected for this type of testing.

Note: To isolate a problem there must be three in-service (IS) idle modem pool members in the group. However, if the test is run with two idle members TST:MP will attempt to find a third idle IS member. If a third idle member is not found the user will be informed that no idle members were found to test.

If two MPMs are specified on the message line in Format 1, they must be members of the same MPG.

If the DN (Format 3) or just the MLHG number (Format 2) of the MPG is given, then all members of the group will be tested. In this case, the switch will select pairs of in-service and idle MPMs, run the test between those two, and report any failures.

If the input message specifies a range of MPMs (Format 2) to be tested, the test is performed on all the valid idle members in the range. If holes in the range exist, then the test would skip to the next available member in the range. If the specified upper boundary in the range is greater than the highest member number, tests would be performed on all valid idle members in the group greater than the lower boundary.

An out-of-service (OOS) MPM can be tested only if the analog side of that MPM is OOS MTCE DSBLD MAN before the test is run. While the MPM is being tested, the status will be IS FRCD UTEST AUTO. The status will be returned to OOS MTCE DSBLD MAN after the test is completed. Only Format 1 will allow the testing of an OOS MPM.

- a = MLHG number of the MPG to be tested.
- b = Member number of the MPM to be tested or lower limit of range of MPMs to be tested.
- c = Upper limit of range of MPMs to be tested.
- d = Type of test to be run. Valid value(s):

ALL = Origination and termination test.
ORIG = Origination test.
TERM = Termination test.

e = Modem pool access directory number of MPG to be tested.

f = Member number of the second MPM to be tested.

4. SYSTEM RESPONSE

NG = No good. The request has been denied.

PF = Printout follows. The request has been accepted and the test will be run. Followed by the TST:MP output message.

RL = Retry later. The request cannot be run now because of system load.

5. REFERENCES

Output Message(s):
TST:MP

ID TST:NCD
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that a network call denial (NCD) query be sent to the NCD database to verify its operation.

2. FORMAT

TST:NCD=a[,OSPS];

3. EXPLANATION OF MESSAGE

OSPS = Indicates an operator services position system (OSPS) application.
a = Ten-digit billing number to be queried, in the form NPANXXXXXX or
 RAO[0/1]XXXXXX.

4. SYSTEM RESPONSE

NG = No good. May also include:
 - CNI NOT AVAILABLE = The test message can not be sent. The common network
 interface (CNI) is not operational or is in overload. Check CNI status and
 wait 10 minutes before requesting another test.
 - INVALID INPUT IN FIELD 'a' = Either an invalid character was input at 'a', or
 an incorrect number of digits was input. There must be 10 digits input at
 'a'.
PF = Printout follows. The request has been received. Followed by the TST:NCD output
 message.
RL = Retry later. May also include:
 - CNI/DLN PROBLEM = The test message cannot be sent. The CNI is in overload or no
 active direct link node (DLN) is available.
 - TEST IN PROGRESS = A common channel signaling (CCS) test is currently in
 progress.
 - TOO MANY QUERIES RUNNING = No NCD query ID's are available.

5. REFERENCES

Input Message(s):
EXC:DSTT
TST:BNS
TST:CAS
TST:CCRD
TST:INWATS
TST:RATE

Output Message(s):
EXC:DSTT
TST:BNS
TST:CAS
TST:CCRD
TST:INWATS
TST:NCD

TST:RATE

ID TST:NS800
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests testing of the integrity of the common channel signaling (CCS) network and data consistency between the service control point (SCP) and the 5ESS®-2000 switch.

2. FORMAT

TST:NS800=a,ANI=b,LATA=c[,OST=d][,CICEI=e][,OPC=f][,PLATFORM=g];

3. EXPLANATION OF MESSAGE

- a = Number to be tested. This number must be a string of ten digits.
- b = Ten-digit automatic number identification (ANI) of the calling party which must have the format NPANXXXXXX.
- c = Three digit absolute local access transport area (LATA) number (100-999).
- d = Originating station type. Valid value(s):
 - AIOD = Auto identified outward dialing - listed directory number (DN) sent.
 - ANIF = Automatic number identification (ANI) failure.
 - CNLES = Coinless, hospital, inmate, and so forth.
 - COIN = Coin call.
 - HOTEL = Hotel without room identification.
 - ILCNL = InterLATA restricted- coinless line, and so forth.
 - ILHT = InterLATA restricted- hotel line.
 - ILRST = InterLATA restricted.
 - LINE = Identified line- no special treatment.
 - NLINE = Identified line, (coin or noncoin).
 - ONI = Operator number identification (multiparty).
 - TEST = Test call.
- e = CIC expansion indicator (Y or N). Indicates whether the CIC expansion parameter should be sent in the test query. If not specified the default value is taken from the Gltcapic office parameter.
- f = Origination point code consisting of a nine digit character string. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Input Messages manual. Note: this option is mandatory in a multi-platform office.
- g = Signaling Platform. Valid value(s):
 - 0 = Common Network Interface (CNI) Platform
 - 1 - 192 = Global Switching Module (GSM) NumberNote: this option is mandatory in a multi-platform office.

4. SYSTEM RESPONSE

- NG = No good. Valid value(s):
 - CCS MESSAGE TRANSPORT PATH UNAVAILABLE = SS7 PSU signaling links are not available.
 - CNI NOT AVAILABLE = The test message cannot be sent. The common network interface (CNI) is not operational or is overloaded. Check CNI status and wait at least 10 minutes before requesting another test.

- FAILED TO SENT TCAP MESSAGE = Unable to format query and sent message out to the network.
- GSM/PROTOCOL MISMATCH = The GSM and the protocol do not match, missing or incorrect data.
- INVALID INPUT IN FIELD = There is either an invalid character in variable 'a', 'b', 'c' or an incorrect number of digits. There must be digits input in variable 'a', 'b', 'c'.
- MUST ENTER OPC = The origination point code must be specified as part of the input message because either there are multiple global switch modules (GSM) in the office or the office is equipped with both common network interface (CNI) and packet switch unit (PSU) platforms.
- MUST ENTER PLATFORM = The signaling platform must be specified as part of the input message because either there are multiple global switch modules (GSM) in the office or the office is equipped with both common network interface (CNI) and packet switch unit (PSU) platforms.
- NO GLOBAL SM IN OFFICE = The office is not equipped with any GSMs.
- NO SS7 IN OFFICE = The office is not equipped with signaling system 7 (SS7) platform.
- OPC IS INVALID = The entered digits are either invalid, the number of digits entered is incorrect, or the point code was not provisioned in the office.
- OPC IS NOT AVAILABLE = Could not get the point code. There was missing or incorrect data.
- OPC NOT ON PLATFORM = Could not find the point code on the platform entered.
- PLATFORM IS INVALID = The entered signaling platform is either invalid or the platform entered is not provisioned in the office.

PF = Printout follows. The request has been received. Followed by the TST:NS800 output message.

RL = Retry later. Valid value(s):

- OVERLOAD CONDITION IN CCS MESSAGE TRANSPORT PATH = SS7 PSU signaling links are congested.
- TEST IN PROGRESS = A common channel signaling (CCS) test is currently in progress.

5. REFERENCES

Output Message(s):
TST:NS800

Other Manual(s):

235-200-115 *CNI Common Channel Signaling*
235-200-116 *Signaling Gateway Common Channel Signaling*

ID TST:OLNS
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that a originating line number screening (OLNS) query be sent to the line information database (LIDB) to verify its operation.

2. FORMAT

TST:OLNS=a

3. EXPLANATION OF MESSAGE

a = 10-digit calling number to be queried in the form NPANXXXXXX.

4. SYSTEM RESPONSE

NG = No good. Includes one of the following:

- REASON FOR NG = Explanation of reason.
- INVALID CLG NUMBER = The calling number is invalid. The NANP calling number must be a 10-digit number.
- CNI NOT AVAILABLE = The query test cannot be sent to the LIDB database because the common network interface (CNI) is not available.
- TEST IN PROGRESS = Another common channel signaling (CCS) test is in progress.
- INTERNAL ERROR = There is an internal error with the LIDB query format.

PF = Printout follows. The request has been received. The output message TST:OLNS follows.

RL = Retry later. Includes one of the following:

- CNI/DLN PROBLEM = The test message cannot be sent - CNI is in overload or no active direct link node (DLN) is available.
- TEST IN PROGRESS = Another common channel signaling (CCS) test is in progress.
- TOO MANY QUERIES RUNNING = No OLNS query IDs are available.

5. REFERENCES

IM/OM References:

None.

ID TST:OSPS
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests that the Hotel Billing Information System (HOBIS) or hotel billing information center (HOBIC) printer be tested by printing a text string (THE QUICK BROWN FOX JUMPED OVER THE LAZY DOGS.\$#: /-'0123456789,"). The message accepts as input either the external Operator Services Position System (OSPS) equipment ID or the internal integrated services line unit (ISLU) line card ID.

This input message can also be used to test an autoquote establishment modem and printer by sending a text string (same as above), or by sending a series of "ENQ" characters, or by raising the carrier at the autoquote digital subscriber line (DSL) modem.

2. FORMAT

TST:OSPS,{HOBIS=a-b|HOBICR=c-d|HOBICV=c-e|LCEN=f-g-h-i
|AQEST=j[,AQ=k-l],m};

3. EXPLANATION OF MESSAGE

- Note: Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.
- a = Hotel Billing Information System (HOBIS) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
 - b = Relative digital subscriber line (DSL) number assigned to a HOBIS data link DSL. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
 - c = Hotel billing information center (HOBIC) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
 - d = Relative DSL number assigned to a HOBICR (HOBIC record TTY) data link DSL. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
 - e = Relative DSL number assigned to a HOBICV (HOBIC voice-quote TTY) data link DSL. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
 - f = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
 - g = Line unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
 - h = Line group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
 - i = Line card ID. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
 - j = Directory (telephone) number of AQEST.
 - k = AQ group ID (1).
 - l = AQ relative DSL number (0-15).
 - m = Test type for AQEST. Valid value(s):

CARRIER = Raise the carrier from local modem (connected at the Autoquote DSL) for 90 seconds on the hotel-leased line.
ENQACK = Send a series of ENQ characters to AQEST for 5 seconds at 500-millisecond intervals.
PRINT = Print the text string on AQEST printer.

4. SYSTEM RESPONSE

IP = In progress. A message to the HOBIS/HOBIC service process has been sent.
NG = No good. May also include:
- LCEN UNKN = The given HOBIS/HOBIC LCEN is invalid.
RL = Retry later. The request has been denied, probably due to system load.

5. REFERENCES

Output Message(s):
TST:OSPS

Other Manual(s):
235-900-500 OSPS Automated Charge Quotation Service

ID TST:PATH-A
RELEASE 5E15 only
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Format 1 is for requesting the automatic digital 64Kbps pseudo random bit error rate (BER) loopback test call on inter-working gateway (IWG) paths. The users enter the external identifiers required to adequately identify the SM and IWG minimumly to be used for testing. The path equipment number (PEN) are optional identifiers for requesting specific test path. In addition, the user must specify the IWG as the loopback (LPBK) termination point.

Format 2 is for requesting end to end test calls (also referred to as the 108 or BICC test call) of ATM packet network switched virtual connections (SVC) connections. The users are required to specify the BICC identifier and out pulse digits (OPDN). The LPBK termination is default to test line (TL) for BICC test call.

This test requires the use of a integrated services test function (ISTF) or global digital services function (GDSF) as the digital test source. One test equipment transmit/receive channel (maximum of 3 per ISTF and 16 per GDSF) must be allocated for each path to be tested. The data rate of the digital bit stream may be specified using the RATE parameter.

The test activates the specified (or default) LPBK termination, establishes a digital path between the test equipment channel and the associated IWG and SVC path, and transmits a pseudo random bit stream to be returned at the location of LPBK termination. The incoming bit stream (returning from the LPBK) is checked by the test equipment to derive the bit error rate (BER) and the errored blocks (ERBLK) for output. The success or failure of testing is based on the acceptable bit error rate (ABER), which is default to 6 - the failing BER of 1 or more bits in error, for every 1,000,000 bits transmitted.

Any TST:PATH request may be stopped using the STP:TST-PATH input message.

2. FORMAT

```
[1] TST:PATH:IWG=a-b[,PEN=c[-d[-e]]][,TERM=f][,TYPE=g]. . .
    . . .[,DUR=h][,RATE=i][,RPT=j][,BLKSZ=k][,ROP];

[2] TST:PATH:{BG=n|BGMN=n-o},OPDN=m. . .
    . . .[,IWG=a-b[,PEN=c[-d[-e]]][,OC3=p][,TYPE=g][,DUR=h]. . .
    . . .[,RATE=i][,RPT=j][,BLKSZ=k][,ROP];
```

3. EXPLANATION OF MESSAGE

Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

- ROP = The ROP parameter frees the invoking terminal (such as, TLWS, MCC) for subsequent work while test results are logged only on the ROP device. This is useful when performing long duration tests in modes that produce multiple output messages.
- a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Inter-working gateway (IWG) unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Relative link number (0-4).

Each relative link (rlink) is a coaxial cable connected to a synchronous transport signal number 1 (STS-1e) card in the IWG. Each rlink is equivalent to a host facility on the IWG (also equivalent to IWGFAC#-1).

d = Relative tributary number (0-27).

Each rlink has 28 relative tributary numbers (rtrib). The rtrib is logical entity on the rlink, which is equivalent to a DS1 in the DNUS. Each rtrib is a physical device chip inside of IWG which capable of handling 24 channels.

e = Digital signal 0 (DS0) value (0-23).

DS0 is logical channels inside the rtrib. The total logical DS0 channels (total rtrib * total DS0) on a rlink is equivalent to the total time slots (TS) on 5E.

f = Termination.

For digital LPBK testing, the termination is the point at which the test data is returned to the test equipment for evaluation. A LPBK termination may be provided using the built in capabilities of transmission equipment.

For Format 1 Only:

IWG = Inter-working gateway. The termination loopback is provided within the IWG connected to the SM.

DEFAULT: IWG

For Format 2 Only:

TL = Test Line. The termination loopback is provided at the test line on the terminating switch.

DEFAULT: TL

g = The type of test to be executed. Valid value(s):

BER = Non-inverted loopback. All bits are returned in the same order as sent.

BERINV = Inverted loopback. All bits are returned as a mirror image of the order sent.

For Format 1 : only BER is allowed. DEFAULT: BER

h = Duration (DUR) of test (1-3600, default 20).

The duration is the length of time (in seconds) that the test source sends test data. In general, the test duration does not include the setup time, or idling time associated with any test request. The elapsed time taken for the test request to complete can be significantly greater than the actual test duration.

i = Data rate.

This is rate of the digital bit stream to be sourced by the ISTF|GDSF during LPBK testing. Valid value(s):

64CLR = 64000 bits/sec clear channel (that is, zero-octet allowed). Default.

64RES = 64000 bits/sec restricted (that is, zero-octet suppressed).

56KPS = 56000 bits/sec.

j = Number of times to repeat the test (default 1).

The current valid repeat test is once. The repeat capability will be implemented in later generic.

k = Block-size (BLKSZ) (1-64000).

For LPBK testing, the digital-bit-stream is partitioned into segments called blocks, specified using the BLKSZ parameter. The BLKSZ is the number of bits in each block. The BLKSZ is used by the ISTF|GDSF to calculate the total ERBLK for output. The ERBLK result characterizes the accumulation of bit-errors. Varying the BLKSZ allows the distribution of errors over time to be better understood.

For Format 1 Only: If BLKSZ is not specified, the default is chosen based on the data rate used. Valid value(s):

56000 = For RATE=56KPS.
64000 = For RATE=64RES or RATE=64CLR.

For Format 2 Only: LPBK testing across ATM network, the BLKSZ is the block of multiple ATM cells.

If BLKSZ is not specified, the default is 384 (48 bytes per ATM cell * 8 cells per block).

m = Digits to be outputted for the specified test.
n = BICC group number (7000-7999).
o = BICC group member, normalized CIC (0-65535).
p = Optical carrier 3 (OC3) link (0-1).

4. SYSTEM RESPONSE

PF = Printout follows. A unique request number is given to each test path requested and is output as "PF - REQNO=x".

If the test request is incomplete or invalid, a single TST:PATH output message is generated indicating the failure.

If the test request is completed, the test procedure attempts to seize control of all resources required for testing.

The number of TST:PATH output messages generated varies in accordance with the number of tests. In general, an output message is generated for each path tested; however, if the same failure occurs on all path tested, one output message may be output for all path. Primarily, the test duration determines the elapsed time between output messages for multi-section tests. When a TST:PATH request is complete, an end-of-transmission (EOT) flag appears on output.

RL = Retry later. The request has been denied due to unavailable system resources.

5. REFERENCES

Input Message(s):
STP:TST-PATH
OP:BICC
OP:JOBSTATUS

Output Message(s):
TST:PATH
OP:BICC
OP:JOBSTATUS

Input Appendix(es):
APP:RANGES

ID TST:PATH-B
RELEASE 5E16(1) only
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Format 1 is for requesting the automatic digital 64Kbps pseudo random bit error rate (BER) loopback test call on inter-working gateway (IWG) paths. The users enter the external identifiers required to adequately identify the SM and IWG minimumly to be used for testing. The path equipment number (PEN) are optional identifiers for requesting specific test path. In addition, the user must specify the IWG as the loopback (LPBK) termination point.

Format 2 is for requesting end to end test calls (also referred to as the 108 or BICC test call) of ATM packet network switched virtual connections (SVC) connections. The users are required to specify the BICC identifier and out pulse digits (OPDN). The LPBK termination is default to test line (TL) for BICC test call.

This test requires the use of a integrated services test function (ISTF) or global digital services function (GDSF) as the digital test source. One test equipment transmit/receive channel (maximum of 3 per ISTF and 16 per GDSF) must be allocated for each path to be tested. The data rate of the digital bit stream may be specified using the RATE parameter.

The test activates the specified (or default) LPBK termination, establishes a digital path between the test equipment channel and the associated IWG and SVC path, and transmits a pseudo random bit stream to be returned at the location of LPBK termination. The incoming bit stream (returning from the LPBK) is checked by the test equipment to derive the bit error rate (BER) and the errored blocks (ERBLK) for output. The success or failure of testing is based on the acceptable bit error rate (ABER), which is default to 6 - the failing BER of 1 or more bits in error, for every 1,000,000 bits transmitted.

Any TST:PATH request may be stopped using the STP:TST-PATH input message.

2. FORMAT

```
[1] TST:PATH:IWG=a-b[,PEN=c[-d[-e]]][,TERM=f][,TYPE=g]. . .  
    . . .[,DUR=h][,RATE=i][,RPT=j][,BLKSZ=k][,ROP];  
[2] TST:PATH:{BG=n|BGMN=n-o},OPDN=m. . .  
    . . .[,IWG=a-b[,PEN=c[-d[-e]]][,OC3=p][,TYPE=g][,DUR=h]. . .  
    . . .[,RATE=i][,RPT=j][,BLKSZ=k][,ROP];
```

3. EXPLANATION OF MESSAGE

Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

ROP = The ROP parameter frees the invoking terminal (such as, TLWS, MCC) for subsequent work while test results are logged only on the ROP device. This is useful when performing long duration tests in modes that produce multiple output messages.

a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

b = Inter-working gateway (IWG) unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

c = Relative link number (0-4).

Each relative link (rlink) is a coaxial cable connected to a synchronous transport signal number 1 (STS-1e) card in the IWG. Each rlink is equivalent to an Host Facility on the IWG (also equivalent to IWGFAC#-1).

d = Relative tributary number (0-27).

Each rlink has 28 relative tributary numbers (rtrib). The rtrib is logical entity on the rlink, which is equivalent to a DS1 in the DNUS. Each rtrib is a physical device chip inside of IWG which capable of handling 24 channels.

e = Digital signal 0 (DS0) value (0-23).

DS0 is logical channels inside the rtrib. The total logical DS0 channels (total rtrib * total DS0) on a rlink is equivalent to the total time slots (TS) on 5E.

f = Termination.

For digital LPBK testing, the termination is the point at which the test data is returned to the test equipment for evaluation. A LPBK termination may be provided using the built in capabilities of transmission equipment.

For Format 1 Only:

IWG = Inter-working gateway. The termination loopback is provided within the IWG connected to the SM.

DEFAULT: IWG

For Format 2 Only:

TL = Test Line. The termination loopback is provided at the test line on the terminating switch.

DEFAULT: TL

g = The type of test to be executed. Valid value(s):

BER = Non-inverted loopback. All bits are returned in the same order as sent.

BERINV = Inverted loopback. All bits are returned as a mirror image of the order sent.

For Format 1 : only BER is allowed. DEFAULT: BER

h = Duration (DUR) of test (1-3600, default 20).

The duration is the length of time (in seconds) that the test source sends test data. In general, the test duration does not include the setup time, or idling time associated with any test request. The elapsed time taken for the test request to complete can be significantly greater than the actual test duration.

i = Data rate.

This is rate of the digital bit stream to be sourced by the ISTF|GDSF during LPBK testing. Valid value(s):

64CLR = 64000 bits/sec clear channel (that is, zero-octet allowed). Default.

64RES = 64000 bits/sec restricted (that is, zero-octet suppressed).

56KPS = 56000 bits/sec.

j = Number of times to repeat the test (default 1).

The current valid repeat test is once. The repeat capability will be implemented in later generic.

k = Block-size (BLKSZ) (1-64000).

For LPBK testing, the digital-bit-stream is partitioned into segments called blocks, specified using the BLKSZ parameter. The BLKSZ is the number of bits in each block. The BLKSZ is used by the ISTF|GDSF to calculate the total ERBLK for output. The ERBLK result characterizes the accumulation of bit-errors. Varying the BLKSZ allows the distribution of errors over time to be better understood.

For Format 1 Only: If BLKSZ is not specified, the default is chosen based on the data rate used. Valid value(s):

56000 = For RATE=56KPS.
64000 = For RATE=64RES or RATE=64CLR.

For Format 2 Only: LPBK testing across ATM network, the BLKSZ is the block of multiple ATM cells.

If BLKSZ is not specified, the default is 384 (48 bytes per ATM cell * 8 cells per block).

m = Digits to be outputted for the specified test.
n = BICC group number (7000-7999).
o = BICC group member, normalized CIC (0-65535).
p = Optical carrier 3 (OC3) link (0-1).

4. SYSTEM RESPONSE

PF = Printout follows. A unique request number is given to each test path requested and is output as "PF - REQNO=x".

If the test request is incomplete or invalid, a single TST:PATH output message is generated indicating the failure.

If the test request is completed, the test procedure attempts to seize control of all resources required for testing.

The number of TST:PATH output messages generated varies in accordance with the number of tests. In general, an output message is generated for each path tested; however, if the same failure occurs on all path tested, one output message may be output for all path. Primarily, the test duration determines the elapsed time between output messages for multi-section tests. When a TST:PATH request is complete, an end-of-transmission (EOT) flag appears on output.

RL = Retry later. The request has been denied due to unavailable system resources.

5. REFERENCES

Input Message(s):
STP:TST-PATH
OP:BICC
OP:JOBSTATUS

Output Message(s):
TST:PATH
OP:BICC
OP:JOBSTATUS

Input Appendix(es):
APP:RANGES

ID TST:PATH-C
RELEASE 5E16(2) and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

The TST:PATH input message is used by office personnel to perform test calls on voice, data, or control paths involving system components. TST:PATH test calls are not associated with a specific trunk or line. There are multiple formats of the TST:PATH input messages that can be performed on an optical interface unit (OIU) serving both ATM and IP connections, as well as PSU PH's. These input messages provide functionality for supporting both loopback and end-to-end type testing. Any TST:PATH request may be stopped using the STP:TST-PATH input message.

Format 1 is for requesting the ATM packet pipe trunk test. In this format, the trunk can be identified by trunk group number and trunk member number or by SM number, packet switch unit (PSU) number, ATM link number and virtual connection identifier (VCID) number. Also, this command provides two mechanisms to run repeating test on ATM packet pipe trunk. One is "RPT", another is the parameter of "DUR".

This test is created for PHA2 which allows ATM permanent virtual circuits (PVCs) to be terminated on digital cellular switch (DCS) to transport cell site to PSU bearer traffic over ATM. Those ATMPPs are represented as trunk group and trunk members similar to frame relay protocol handler (FRPH) PPs.

This test provides an ability to detect the configuration for both the cell site and DCS. For the duplex channel mode, the STBY channel will be marked with a "*".

This test can be run on both the IS ATMPP trunk and OOS ATMPP trunks. (Note: When ATMPP trunk is in OOS state, only "OOS-MTCE-DSBLD and OOS-CADN-DSBLD" are allowed to run test). When execute an ATM loop back test while ATMPP trunk is OOS, this test is used to allow verification of PVC provisioning in the ATM network prior to making the ATMPP trunk operational.

Format 2 is for requesting the ATM OA&M loop back test on signaling ATM adaptation layer-high speed link (SAAL HSL). The SAAL HSL is also known as PSU PIPE, and appears on RC/V View 22.25 (PACKET SWITCH UNIT PIPE). It carries the ATM traffic containing SS7 signaling for all the ISUP/BICC trunks in the whole office. The SAAL HSL connects two CCS nodes, and can be identified by PSU equipment number (PSUEN).

This test provides a mechanism to detect the availability of the ATM layer functions of HSL. The user can initiate a test from one CCS node, for example, 5ESS. This CCS node sends out OA&M cell to the far end CCS node and gets loop back cell back, the result will be looked as successful completion.

This test can only be run on IS SAAL-HSL, and access is denied when the user attempts to run the OA&M loop-back on the OOS SAAL HSL.

The DELAY test call can be used to confirm that a loopback exists between two ends, measure the power level and noise level of the OIU-IP path under test, and determine whether the loopback delay associated with the OIU-IP path exceeds the specified delay threshold timeout (TMO) value or not.

Format 3 is used for requesting the DELAY loop-back test to a loopback point at the near-end inter-working gateway unit (for example, packet FPGA on OIU-IP unit). The near-end loop-back involves no signaling outside of the office. The TST:PATH input message supports the addition of OIUPG and PCTTS input parameters.

This test will exercise the majority of the OIU-IP hardware functionality, including (outgoing) the conversion of a TDM channel into IP packets and (incoming) the conversion of IP packets into a TDM channel.

Format 4 is used for requesting a DELAY test call over an OIU-IP bearer network path to a far end office. For end to end loop testing, signaling (for example, BICC, SIP, and so forth) is used to control the test calls as it does on the normal OIU-IP calls.

Format 5 is used for requesting an outgoing test call over an OIU-IP bearer network using the 105 voice quality test type. The MEAS options allows office personnel to enter the specific 105 measurement to run. If only a packet group (PKTG) is specified, the system will select the appropriate call resources associated with that group. Selecting the PKTGMN keyword gives office personnel the ability to select a specific call identification code (CIC) within the packet group for BICC signaling.

If DELAY or 105 test calls are requested over an OIU-IP bearer network path supported with SIP signaling, only the PKTG keyword is supported, and use of the PKTGMN keyword is denied, as there are no member CICs for SIP signaling system.

Format 6 is used for requesting an SCTP (Session Control Transport Protocol) heartbeat (SCTPHB) test to evaluate the SCTP association path.

This test validates the integrity of SCTP association path. The user can request to test one specific association or the whole association set (by input ASSOCSET or PKTG). The input message also provides testing of an active path (default), a specific path (DIP) or all paths (ALL) of the association(s). The serving SIP PH performs the role of the test equipment and interfaces with the SCTP layer manager to execute the requested test.

2. FORMAT

[1]	TST:PATH:{ATMENH ATMLBK}, ... ATMP=a-b-c[-d]{,TG=e TKGMN=e-f[&&g]}.[DUR=h][,CAMP=i][,RPT=j][,ROP];
[2]	TST:PATH:ATMLBK,PSUEN=a-b-k-l-m[,CAMP=i][,RPT=j].[,ROP];
[3]	TST:PATH:DELAY[,TMO=n],OIUPG=a-q-r,PCTTS=t-u[,RPT=j][,ROP];
[4]	TST:PATH:DELAY[,TMO=n],{PKTG=o PKTGMN=o-p},.[OIU=a-q OIUPG=a-q-r],OPDN=s[,RPT=j][,ROP];
[5]	TST:PATH:OG105[,MEAS=v],{PKTG=o PKTGMN=o-p},.[OIU=a-q OIUPG=a-q-r],OPDN=s[,RPT=j][,ROP];
[6]	TST:PATH:SCTPHB,{ASSOCSET=w PKTG=o ASSOC=x}[,ALL DIP=y][,RPT=j][,ROP];

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

ATMENH	= ATMP enhanced loop-back test. Used to request the exact configuration of cell sites corresponding to the DCS side, which are represented as trunk group and trunk member information.
ATMLBK	= Standard ATMP loopback request.
ROP	= The ROP parameter frees the invoking terminal (such as, TLWS, MCC) for subsequent work while test results are logged only on the ROP device. This is useful when performing long duration tests in modes that produce multiple output messages.
a	= Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

- b = Packet switch unit (PSU). Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = ATM link unit number (1-10).
- d = VCID number (0-1023) or ALL. When ALL is specified, then all of the VCIDs on the link will be tested.
- e = Trunk group (TG) number.
- f = Trunk group member (TKGMN) number or lower limit of range of trunk group member numbers.
- g = Upper limit of range of trunk group member numbers.
- h = The duration or length of time the test source sends test data. The range of the duration is 6-3600, default value is 5. The test duration does not include the setup or idling time associated with the test. The elapsed time for the test request to complete can be significantly greater than the actual test duration.
- i = Camp-on (CAMP) time (10-3600). Test camps-on the requested test for the time specified (in seconds), wait for the required resources to become available. Once the resources become available the test proceeds. If the resources do not become available in the specified time, the test is aborted.
- j = Number of times to repeat the test. For Format 1, the range is from 1 to 126. For all other formats, the range is from 1 to 32. The default is 1. For SCTPHB test, it is only supported when ASSOC is identified. It is not applicable to the ASSOCSET and PKTG parameters.
- k = PSU shelf number (0-4).
- l = PSU channel number (0-15).
- m = PSU channel member number (0-127).
- n = The DELAY test timeout threshold in milliseconds. The accuracy of the measurement in the GDSF is only to within about 10 milliseconds, which is sufficient to measure the impact of the end-to-end network delay on the perceived quality of a voice call. The DELAY test will compare the round-trip transmission delay against this value to determine the results of the test. If the round-trip delay is equal or less than the specified delay timeout, the result will indicate the delay threshold was not exceeded.
- o = Packet group (PKTG) number over which to set up the test call (7000-7999).
- p = Packet group member number (PKTGMN). Only valid for BICC packet groups, and is the normalized call identification code (CIC) to use for the test call (0-65535).
- q = Optical interface unit (OIU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- r = Optical interface unit protection group (OIUPG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- s = Digits to be outpulsed for the specified test. This represents the test lines DN in the far-end office to be outpulsed by the near-end office during the establishment of the loop-back test between the far and near-end offices. The digits outpulsed should be the digits necessary to connect to the appropriate incoming test line in the far-end office for the outgoing test type specified. This represents the exact digit sequence that will be sent to the far-end office, without any routing or steering digits being added.
- t = Peripheral control and timing (PCT) link number, relative to the OIU (0-2).
- u = PCT time slot (PCTTS) number (0-767).
- v = The type of 105 test measurement to perform on the path under test. It represents the measurements for a two-way balance, loss, and noise 105 transmission test. This option

allows the user to specify the measurement type to perform on the path under test between the far-end to near-end and near-end to far-end offices. Default is a standard 105 test, including L, N, NT, and RN test. Valid type(s):

Type	Measurement	Optimum Level	Filter	Remarks
ALL	ALL test	--	--	All 105 test, including ERL, L, L4, L10, L28, N, NT, RN, SHI, and SRL
ERL	Echo return loss	Band-limited noise	--	Both ends
GS	Gain slope	--	--	GS test, including L4, L10, and L28
L	Level	0dBm0	1004Hz	Both ends
L10	Level	-16dBm0	1004Hz	Both ends
L28	Level	-16dBm0	2804Hz	Both ends
L4	Level	-16dBm0	404Hz	Both ends
N	Noise	--	C-message	Far end
NT	Noise with tone	--	1004 Hz notch	Both ends
RL	Return loss	--	--	RL test, including ERL, SRL, and SHI
RN	Noise	--	C-message	Near end
SHI	Singing return loss (high frequency)	Band-limited noise	--	Both ends
SRL	Singing return loss (low frequency)	Band-limited noise	--	Both ends

w = SCTP association set name. It is a request to test the whole association set which could have up to 64 associations. Since one association set corresponds to one packet group, ASSOCSET could be found using PKTG on RC/V View 5.71 (PACKET GROUP DEFINITION).

x = SCTP association number (1-1023). It is a request to run a test on a single association. Refer to RC/V View 33.23 (ASSOCIATION SET) to find the associations under the specified set. Refer to RC/V View 33.22 (SCTP ASSOCIATION) to find the association information.

y = Destination internet protocol address, in the form xxx-xxx-xxx-xxx. It is a request to the SCTP HB test on the specific path in one association. RC/V View 33.22 (SCTP ASSOCIATION) identifies DIP 1 and DIP 2 (DEST IP ADDR 1 and DEST IP ADDR 2) values (there are two DIPs associated with one association). Designating ALL causes the heart beat test to be executed for all paths of the association(s).

When it is input with ASSOCSET or PKTG parameter, the SCTP association path whose DIP is matched will be tested, and request will be aborted for mismatched ones.

4. SYSTEM RESPONSE

PF = Printout follows. A unique request number is given to each test path requested and is output as "PF - REQNO=x".

If the test request is incomplete or invalid, a single TST:PATH output message is generated indicating the failure.

If the test request is completed, the test procedure attempts to seize control of all resources required for testing.

The number of TST:PATH output messages generated varies in accordance with the number of tests. In general, an output message is generated for each path tested; however, if the same failure occurs on all path tested, one output message may be output for all path. Primarily, the test duration determines the elapsed time between output messages for multi-section tests. When a TST:PATH request is complete, an end-of-test (EOT) flag appears on output.

RL = Retry later. The request has been denied due to unavailable system resources.

5. REFERENCES

Input Message(s):

STP:TST-PATH
TST:TRK
OP:BICC
OP:JOBSTATUS

Output Message(s):

TST:PATH
OP:BICC
OP:JOBSTATUS

Input Appendix(es):

APP:RANGES

RC/V View(s):

5.71	PACKET GROUP DEFINITION
22.25	PACKET SWITCH UNIT PIPE
33.22	SCTP ASSOCIATION
33.23	ASSOCIATION SET

ID TST:PHPATH-A
RELEASE 5E18(1) and later
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests a test of the communication between a source protocol handler (PH)/packet interface (PI) and destination PH/PI.

This command generates a test packet(s) that is sent from the source PH/PI to the destination PH/PI. When the source and destination processor are in the same office the test will generate both a high and low priority packet to test the two different possible types of communication. When the source and destination are in different offices or subnetworks only a high test packet will be generated.

When the source and destination community address are different the test packet(s) will be routed over the appropriate asynchronous transfer mode (ATM) connection.

The STBY option can be used to report all of the above information from the PHA2 with the standby channel. By default the above information is only reported from the PHA2 with the active channel.

2. FORMAT

TST:PHPATH,PSUCA=a[,CHGRP=b][,FARSN=c][,FARCA=d][,FARCHGRP=e][,STBY];

3. EXPLANATION OF MESSAGE

- STBY = Verify the PH/PI to PH communication using the standby packet bus.
- a = Near end packet switching unit (PSU) community address (a non-zero number) of the PSU.
- b = Near end PSU channel group.
- c = Far subnetwork ID.
- d = Far end PSU community address (a non-zero number) of the PSU.
- e = Far end PSU channel group.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by one or more TST:PHPATH output message.
- NG = No good. May also include:
- UNIT UNEQUIPPED = The request has been denied. The message is valid but no PSUs within the scope of the input message were detected in the current equipage.
 - DATABASE ERROR = The request has been denied. The message is valid but an internal database error has prevented any action from being taken.
 - STBY NOT ALLOWED = The request has been denied. The message is valid but the near end PSU does not have a STBY PSUCOM.
 - FARSN MUST NOT EQUAL OFFICE SN = The request has been denied. The message is valid but the far subnetwork (SN) entered is the same as the near SN.
 - FARCA MUST NOT EQUAL NEARCA WHEN CHGRP AND FARCHGRP ARE NOT ENTERED = The request has been denied. The message is valid but the near PSU community address (CA) and far PSU CA match with no channel group specified.
 - STBY NOT ALLOWED WHEN FARCA IS NOT EQUAL TO PSUCA = The request has been denied. The message is valid but the standby option can't be used when the near PSU CA and far PSU CA don't match.

RL = Retry later. May also include:
 - SM UNAVAILABLE The request has been denied. The message is valid but the SM is
 not available.

5. REFERENCES

Output Message(s):
TST:PHPATH

Input Appendix(es):
APP:RANGES

ID TST:PHPATH-B
RELEASE 5E20(1) and later
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests a test of the communication between a source protocol handler (PH)/packet interface (PI) and destination PH/PI.

This input message generates a test packet(s) that is sent from the source PH/PI to the destination PH/PI. When the source and destination processor are in the same office the test will generate both a high and low priority packet to test the two different possible types of communication. When the source and destination are in different offices or subnetworks only a high test packet will be generated.

When the source and destination community address are different the test packet(s) will be routed over the appropriate asynchronous transfer mode (ATM) or internet protocol (IP) connection.

This input message is supported on the following types of hardware: PH4, PH22 (FRPH), PHA2, PHE2 (PHE2E), PHE3, PHE4, PHV4, PHV5 and PHV6.

2. FORMAT

TST:PHPATH,PSUCA=a[,CHGRP=b][,FARSN=c][,FARCA=d][,FARCHGRP=e][,PCKTS=f]
[,DUR=g][,MSGSIZE=h][,AVGDELAY=i][,PERDELAY=j][,PERCTG=k][,STBY];

3. EXPLANATION OF MESSAGE

- STBY = Verify the PH/PI to PH communication using the standby packet bus.
- a = Near end packet switching unit (PSU) community address (a non-zero number) of the PSU.
- b = Near end PSU channel group.
- c = Far subnetwork ID.
- d = Far end PSU community address (a non-zero number) of the PSU.
- e = Far end PSU channel group.
- f = Number of test packets to be sent to the far end (1 - 50).
- g = Test duration in seconds (1 - 60).
- h = Size of the payload in each packet (20 - 36 bytes).
- i = Average delay of the packets in microseconds (500 - 200000).
- j = Percentile delay of the percentage of packets in microseconds (500 - 200000).
- k = Percentage of packets that will be received within the percentile delay range (1 - 100).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by one or more TST:PHPATH output message.
- NG = No good. May also include:
- DATABASE ERROR = The request has been denied. The message is valid but an internal database error has prevented any action from being taken.

- FARCA MUST NOT EQUAL NEARCA WHEN CHGRP AND FARCHGRP ARE NOT ENTERED = The request has been denied. The message is valid but the near PSU community address (CA) and far PSU CA match with no channel group specified.
- FARSN MUST NOT EQUAL OFFICE SN = The request has been denied. The message is valid but the far subnetwork (SN) entered is the same as the near SN.
- STBY NOT ALLOWED = The request has been denied. The message is valid but the near end PSU does not have a STBY PSUCOM.
- STBY NOT ALLOWED WHEN FARCA IS NOT EQUAL TO PSUCA = The request has been denied. The message is valid but the standby option can't be used when the near PSU CA and far PSU CA don't match.
- UNIT UNEQUIPPED = The request has been denied. The message is valid but no PSUs within the scope of the input message were detected in the current equipage.

RL = Retry later. May also include:

- SM UNAVAILABLE The request has been denied. The message is valid but the SM is not available.

5. REFERENCES

Output Message(s):
TST:PHPATH

Input Appendix(es):
APP:RANGES

ID TST:PSLNK-A
RELEASE 5E15 only
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests an asynchronous transfer mode (ATM) level loop back test between two end points of a packet switch unit (PSU) link (PSLNK) in a point-to-point network configuration (Formats 1 through 3) or between two end points of a virtual path in a point-to-multipoint ATM network (Formats 4 through 6). Each end point is uniquely addressed with a non-zero PSU community address (CA) within that network.

A PSU link is uniquely identified by the CAs of two PSUs within the point-to-point network, that this PSU link connects. Similarly, a virtual path (VPATH) is uniquely identified by the CAs of two PSUs within the point-to-multipoint ATM network, that this VPATH connects. The near end PSU CA can be entered directly in the input message line or can be translated by the switch from the entered PSU equipment number. However, the PSU link's or VPATH's far end PSU CA can not be specified by the PSU equipment number and must always be entered as PSU CA. For gateway PHAs the far subnetwork number is needed to do the loopback test. The test cannot be started from a gateway PHA.

There are two options of the loop back test. The default loop back test is the standard test as described in the GR-1248 ATM specification. This test is useful for checking provisioning between ATM end points through an ATM center-stage switch. This test verifies that the far end point received the loop back cell, and returned the cell within proper time interval. This test will not detect the case where the far end point that returned the ATM loop back cell was not the end point specified by the input command. This could happen if there is a misprovisioned ATM center-stage switch that connects to an ATM end point that can return the loop back cell.

The second option is the "Enhanced" test, which is invoked using the "ENH" parameter. The enhancement option is a non-standard, Alcatel-Lucent-only loop back test that explicitly verifies the virtual path between Alcatel-Lucent PHAs. This test uses the information available at the far end point to overwrite part of the ATM loop back cell "tag" field before sending back the cell. The originating end point validates the received "tag", and outputs the far end point's PSU CA as well as the VPI on which the loop back cell was received. This test can only be properly used between Alcatel-Lucent PSU CA end points.

2. FORMAT

```
[1] TST:PSLNK=a-b[,ENH];  
[2] TST:PSLNK,PSUCA=a,FARCA=b[,ENH];  
[3] TST:PSLNK,PSU=c-0,FARCA=b[,ENH];  
[4] TST:PSLNK,VPATH=a-b[,FARSN=d][,ENH];  
[5] TST:PSLNK,VPATH,PSUCA=a,FARCA=b[,FARSN=d][,ENH];  
[6] TST:PSLNK,VPATH,PSU=c-0,FARCA=b[,FARSN=d][,ENH];
```

3. EXPLANATION OF MESSAGE

a = Near end PSU community address (a non-zero number) of the PSU link or virtual path.
b = Far end PSU community address (a non-zero number) of a PSU link or of a virtual path.
c = Switching module (SM) number.
d = Far subnetwork number
ENH = Enhancement option for more rigorous verification of the "tag" field in the ATM loop

back cell. With this option, the far end point and the virtual path taken by the responding loop back cell are explicitly verified. See above for more complete explanation. This test is only to be used between PSU CA end points.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message is valid but the request conflicts with current equipage or status.
- PF = Printout follows. Followed by the TST:PSLNK output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Appendix(es):
APP:RANGES

Output Message(s):
TST:PSLNK

ID TST:PSLNK-B
RELEASE 5E16(1) - 5E16(2)
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests an asynchronous transfer mode (ATM) level loop back test between two end points of a packet switch unit (PSU) link (PSLNK) in a point-to-point network configuration (Formats 1 through 3) or between two end points of a virtual path in a point-to-multipoint ATM network (Formats 4 through 6). Each end point is uniquely addressed with a non-zero PSU community address (CA) within that network.

A PSU link is uniquely identified by the CAs of two PSUs within the point-to-point network, that this PSU link connects. Similarly, a virtual path (VPATH) is uniquely identified by the CAs of two PSUs within the point-to-multipoint ATM network, that this VPATH connects. The near end PSU CA can be entered directly in the input message line or can be translated by the switch from the entered PSU equipment number. However, the PSU link's or VPATH's far end PSU CA can not be specified by the PSU equipment number and must always be entered as PSU CA. For gateway PHAs the far subnetwork number is needed to do the loopback test. The test cannot be started from a gateway PHA.

There are two options of the loop back test. The default loop back test is the standard test as described in the GR-1248 ATM specification. This test is useful for checking provisioning between ATM end points through an ATM center-stage switch. This test verifies that the far end point received the loop back cell, and returned the cell within proper time interval. This test will not detect the case where the far end point that returned the ATM loop back cell was not the end point specified by the input command. This could happen if there is a misprovisioned ATM center-stage switch that connects to an ATM end point that can return the loop back cell.

The second option is the "Enhanced" test, which is invoked using the "ENH" parameter. The enhancement option is a non-standard, Alcatel-Lucent-only loop back test that explicitly verifies the virtual path between Alcatel-Lucent PHAs. This test uses the information available at the far end point to overwrite part of the ATM loop back cell "tag" field before sending back the cell. The originating end point validates the received "tag", and outputs the far end point's PSU CA as well as the VPI on which the loop back cell was received. This test can only be properly used between Alcatel-Lucent PSU CA end points.

2. FORMAT

```
[1] TST:PSLNK=a-b[,ENH];  
[2] TST:PSLNK,PSUCA=a,FARCA=b[,ENH];  
[3] TST:PSLNK,PSU=c-d,FARCA=b[,ENH];  
[4] TST:PSLNK,VPATH=a-b[,FARSN=e][,ENH];  
[5] TST:PSLNK,VPATH,PSUCA=a,FARCA=b[,FARSN=e][,ENH];  
[6] TST:PSLNK,VPATH,PSU=c-d,FARCA=b[,FARSN=e][,ENH];
```

3. EXPLANATION OF MESSAGE

- a = Near end PSU community address (a non-zero number) of the PSU link or virtual path.
- b = Far end PSU community address (a non-zero number) of a PSU link or of a virtual path.
- c = Switching module (SM) number.
- d = PSU number
- e = Far subnetwork number

ENH = Enhancement option for more rigorous verification of the "tag" field in the ATM loop back cell. With this option, the far end point and the virtual path taken by the responding loop back cell are explicitly verified. See above for more complete explanation. This test is only to be used between PSU CA end points.

4. SYSTEM RESPONSE

NG = No good. The request has been denied. The message is valid but the request conflicts with current equipage or status.

PF = Printout follows. Followed by the TST:PSLNK output message.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Appendix(es):
APP:RANGES

Output Message(s):
TST:PSLNK

ID TST:PSLNK-C
RELEASE 5E17(1) only
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests an asynchronous transfer mode (ATM) level loop back test between two endpoints of a packet switch unit (PSU) link (PSLNK) in a point-to-point network configuration (Formats 1 through 3) or between two end points of a virtual path in a point-to-multipoint ATM network (Formats 4 through 6). Each endpoint is uniquely addressed with a non-zero PSU community address (CA) within that network.

A PSU link is uniquely identified by the CAs of two PSUs within the point-to-point network, that this PSU link connects. Similarly, a virtual path (VPATH) is uniquely identified by the CAs of two PSUs within the point-to-multipoint ATM network, that this VPATH connects. The near end PSU CA can be entered directly in the input message line or can be translated by the switch from the entered PSU equipment number. However, the PSU link's or VPATH's far end PSU CA can not be specified by the PSU equipment number and must always be entered as PSU CA. When requesting an inter-network loop back test, the far subnetwork number is needed. The test cannot be started from a gateway PHA.

There are two options of the loop back test. The default loop back test is the standard test as described in the GR-1248 ATM specification. This test is useful for checking provisioning between ATM endpoints through an ATM center-stage switch. This test verifies that the far endpoint received the loop back cell, and returned the cell within the proper time interval. This test will not detect the case where the far endpoint that returned the ATM loop back cell was not the endpoint specified by the input message. This could happen if there is a misprovisioned ATM center-stage switch that connects to an ATM end point that can return the loop back cell.

The second option is the "enhanced" test, which is invoked using the "ENH" parameter. The enhancement option is a non-standard, loop back test that explicitly verifies the virtual path between Alcatel-Lucent PHAs. This test uses the information available at the far endpoint to overwrite part of the ATM loop back cell "tag" or "Source ID" field before sending back the cell. The originating endpoint validates the received "tag" or "Source ID" and outputs the far endpoint's PSU CA as well as the far network and VPI/VCI on which the loop back cell was received. This test can only be properly used between PSU CA endpoints.

The delay option can be used to measure the roundtrip time that the ATM loopback cell takes to go between PSU CA endpoints. This time includes the PHA scheduling and processing time as well as the ATM delay time. Note: For each PHA1 endpoint the approximate processing and scheduling time is 3-5 ms. The delay time will be output when the test successfully completes.

The trace option can be used to trace the PSU routing that is used by each PSU CA endpoint. When originating or responding to the original ATM loopback cell, the near PSU will use its own routing data to determine the correct PVC to use. The source and destination PVC types will be output when the test successfully completes.

2. FORMAT

```
[1]      TST:PSLNK=a-b[,ENH];  
[2]      _____  
          TST:PSLNK,PSUCA=a,FARCA=b[,ENH];  
[3]      _____  
          TST:PSLNK,PSU=c-d,FARCA=b[,ENH];  
[4]      _____  
          TST:PSLNK,VPATH=a-b[,FARSN=f][,ENH][,DELAY][,TRACE][,{VPIVC}];  
[5]      _____  
          TST:PSLNK,VPATH,PSUCA=a,FARCA=b[,FARSN=f][,ENH][,DELAY][,TRACE][,{VPIVC}];
```

[6]	TST:PSLNK,VPATH,PSU=c-d,FARCA=b[,FARSN=f][,ENH][,DELAY][,TRACE][,{VP VC}];
[7]	TST:PSLNK,VPATH,PSALNK=c-d-e,FARCA=b[,FARSN=f][,ENH][,DELAY][,TRACE][,{VP VC}];

3. EXPLANATION OF MESSAGE

ENH	= Enhancement option for more rigorous verification of the "tag" or "Source ID" field in the ATM loop back cell. With this option, the far endpoint and the virtual path taken by the responding loop back cell are explicitly verified. Refer to the PURPOSE section for more complete explanation. This test is only to be used between PSU CA end points.
DELAY	= Perform the same tests as specified in the enhancement option and in addition specifies that the ATM delay time between PSU CA end points be displayed.
TRACE	= Perform the same tests as specified in the enhancement option and in addition specifies that a trace of the far PSU CA endpoints routing data be executed.
VC	= Virtual channel option specifies that a virtual channel test be executed.
VP	= Virtual path option specifies that a virtual path test be executed.
a	= Near end PSU community address (a non-zero number) of the PSU link or virtual path.
b	= Far end PSU community address (a non-zero number) of a PSU link or of a virtual path.
c	= Switching module (SM) number.
d	= PSU number.
e	= PSU link number.
f	= Far subnetwork number.

4. SYSTEM RESPONSE

NG	= No good. The request has been denied. The message is valid but the request conflicts with current equipage or status.
PF	= Printout follows. Followed by the TST:PSLNK output message.
RL	= Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
TST:PSLNK

Input Appendix(es):
APP:RANGES

ID TST:PSLNK-D
RELEASE 5E18(1) - 5E19(1)
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests an asynchronous transfer mode (ATM) level loop back test between two endpoints of a packet switch unit (PSU) link (PSLNK) in a point-to-point network configuration (Formats 1 through 3) or between two end points of a virtual path in a point-to-multipoint ATM network (Formats 4 through 7). Each endpoint is uniquely addressed with a non-zero PSU community address (CA) within that network.

A PSU link is uniquely identified by the CAs of two PSUs within the point-to-point network, that this PSU link connects. Similarly, a virtual path (VPATH) is uniquely identified by the CAs of two PSUs within the point-to-multipoint ATM network, that this VPATH connects. The near end PSU CA can be entered directly in the input message line or can be translated by the switch from the entered PSU equipment number. However, the PSU link's or VPATH's far end PSU CA can not be specified by the PSU equipment number and must always be entered as PSU CA. When requesting an inter-network loop back test, the far subnetwork number is needed.

There are two options of the loop back test. The default loop back test is the standard test as described in the GR-1248 ATM specification. This test is useful for checking provisioning between ATM endpoints through an ATM center-stage switch. This test verifies that the far endpoint received the loop back cell, and returned the cell within the proper time interval. This test will not detect the case where the far endpoint that returned the ATM loop back cell was not the endpoint specified by the input message. This could happen if there is a misprovisioned ATM center-stage switch that connects to an ATM end point that can return the loop back cell.

The second option is the "enhanced" test, which is invoked using the "ENH" parameter. The enhancement option is a non-standard, loop back test that explicitly verifies the virtual path between Alcatel-Lucent PHAs. This test uses the information available at the far endpoint to overwrite part of the ATM loop back cell "tag" or "Source ID" field before sending back the cell. The originating endpoint validates the received "tag" or "Source ID" and outputs the far endpoint's PSU CA as well as the virtual path identifier (VPI)/virtual channel identifier (VCI) on which the loop back cell was received. For a protocol handler for ATM version 2 (PHA2) originated and terminated test the near PSU link number and far endpoint's network and PSU link number will also be output. This test can only be properly used between PSU CA endpoints.

The delay option can be used to measure the round trip time that the ATM loopback cell takes to go between PSU CA endpoints. This time includes the PHA scheduling and processing time as well as the ATM delay time. Note: For each PHA1 endpoint the approximate processing and scheduling time is 3-5 ms. The delay time will be output when the test successfully completes.

The trace option can be used to trace the PSU routing that is used by each PSU CA endpoint. When originating or responding to the original ATM loopback cell, the near PSU will use its own routing data to determine the correct PVC to use. The source and destination PVC types will be output when the test successfully completes. The trace option may fail if the routing assignments for the far endpoint PSU are assigned to multiple PHA2 links.

The application type (AT) option can be used to specify whether only a high or low priority PVC test should be executed. When the AT is not specified the test will be executed over the appropriate PVCs based on the current routing assignment and/or PSU CA data.

2. FORMAT

[1]	TST:PSLNK=a-b[,ENH];
[2]	TST:PSLNK,PSUCA=a,FARCA=b[,ENH];
[3]	TST:PSLNK,PSU=c-d,FARCA=b[,ENH];
[4]	TST:PSLNK,VPATH=a-b[,FARSN=f][,ENH][,DELAY][,TRACE][,{VP VC}][,AT=g];
[5]	TST:PSLNK,VPATH,PSUCA=a,FARCA=b[,FARSN=f][,ENH][,DELAY][,TRACE][,{VP VC}][,AT=g];
[6]	TST:PSLNK,VPATH,PSU=c-d,FARCA=b[,FARSN=f][,ENH][,DELAY][,TRACE][,{VP VC}][,AT=g];
[7]	TST:PSLNK,VPATH,PSALNK=c-d-e,FARCA=b[,FARSN=f][,ENH][,DELAY][,TRACE][,{VP VC}][,AT=g];

3. EXPLANATION OF MESSAGE

ENH	= Enhancement option for more rigorous verification of the "tag" or "Source ID" field in the ATM loop back cell. With this option, the far endpoint and the virtual path taken by the responding loop back cell are explicitly verified. Refer to the PURPOSE section for more complete explanation. This test is only to be used between PSU CA end points.
DELAY	= Perform the same tests as specified in the enhancement option and in addition specifies that the ATM delay time between PSU CA end points be displayed.
TRACE	= Perform the same tests as specified in the enhancement option and in addition specifies that a trace of the far PSU CA endpoints routing data be executed. This parameter is only valid for PHA2 initiated tests.
VC	= Virtual channel option specifies that a virtual channel test be executed. This parameter is only valid for PHA2 initiated tests.
VP	= Virtual path option specifies that a virtual path test be executed. This parameter is only valid for PHA2 initiated tests.
a	= Near end PSU community address (a non-zero number) of the PSU link or virtual path.
b	= Far end PSU community address (a non-zero number) of a PSU link or of a virtual path.
c	= Switching module (SM) number.
d	= PSU number.
e	= PSU link number. This parameter is only valid for PHA2 initiated tests.
f	= Far subnetwork number. This parameter is only valid for PHA2 initiated tests.
g	= Application type. Valid value(s): H = High priority application. L = Low priority application. This parameter is only valid for PHA2 initiated tests.

4. SYSTEM RESPONSE

NG	= No good. The request has been denied. The message is valid but the request conflicts with current equipage or status.
PF	= Printout follows. Followed by the TST:PSLNK output message.

RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
TST:PSLNK

Input Appendix(es):
APP:RANGES

ID TST:PSLNK-E
RELEASE 5E20(1) and later
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests an asynchronous transfer mode (ATM) level loop back test between two endpoints of a packet switch unit (PSU) link (PSLNK) in a point-to-point network configuration (Formats 1 through 3) or between two end points of a virtual path in a point-to-multipoint ATM network (Formats 4 through 7) or between 2 endpoints in an internet protocol (IP) network (formats 4 through 7). Each endpoint is uniquely addressed with a non-zero PSU community address (CA) within that network.

A PSU link is uniquely identified by the CAs of two PSUs within the point-to-point network, that this PSU link connects. Similarly, a virtual path (VPATH) is uniquely identified by the CAs of two PSUs within the point-to-multipoint ATM network, that this VPATH connects. In an IP network, an IP connection is uniquely identified by the CAs of two PSUs with IP soft hand-off (SHO) protocol handlers (PHs). The near end PSU CA can be entered directly in the input message line or can be translated by the switch from the entered PSU equipment number. However, the PSU link's or VPATH's far end PSU CA can not be specified by the PSU equipment number and must always be entered as PSU CA. When requesting an inter-network loop back test, the far subnetwork number is needed.

There are two options of the loop back test. The default loop back test is the standard test as described in the GR-1248 ATM specification. This test is useful for checking provisioning between ATM endpoints through an ATM center-stage switch. This test verifies that the far endpoint received the loop back cell, and returned the cell within the proper time interval. This test will not detect the case where the far endpoint that returned the ATM loop back cell was not the endpoint specified by the input message. This could happen if there is a misprovisioned ATM center-stage switch that connects to an ATM end point that can return the loop back cell.

The second option is the "enhanced" test, which is invoked using the "ENH" parameter. The enhancement option is a non-standard, loop back test that explicitly verifies the virtual path between Alcatel-Lucent PHAs. This test uses the information available at the far endpoint to overwrite part of the ATM loop back cell "tag" or "Source ID" field before sending back the cell. The originating endpoint validates the received "tag" or "Source ID" and outputs the far endpoint's PSU CA as well as the virtual path identifier (VPI)/virtual channel identifier (VCI) on which the loop back cell was received. For a protocol handler for ATM version 2 (PHA2) originated and terminated test the near PSU link number and far endpoint's network and PSU link number will also be output. This test can only be properly used between PSU CA endpoints.

The delay option can be used to measure the round trip time that the ATM loopback cell takes to go between PSU CA endpoints. This time includes the PHA scheduling and processing time as well as the ATM delay time. Note: For each PHA1 endpoint the approximate processing and scheduling time is 3-5 ms. The delay time will be output when the test successfully completes.

The trace option can be used to trace the PSU routing that is used by each PSU CA endpoint. When originating or responding to the original ATM loopback cell, the near PSU will use its own routing data to determine the correct PVC to use. The source and destination PVC types will be output when the test successfully completes. The trace option may fail if the routing assignments for the far endpoint PSU are assigned to multiple PHA2 links.

The application type (AT) option can be used to specify whether only a high or low priority PVC test should be executed. When the AT is not specified the test will be executed over the appropriate PVCs based on the current routing assignment and/or PSU CA data.

The IP option can be used to specify a test between IP SHO PHs within 2 different CAs.

2. FORMAT

[1]	TST:PSLNK=a-b[,ENH];
[2]	TST:PSLNK,PSUCA=a,FARCA=b[,ENH];
[3]	TST:PSLNK,PSU=c-d,FARCA=b[,ENH];
[4]	TST:PSLNK,VPATH=a-b[,FARSN=f][[,ENH][,DELAY][,TRACE] [, {VP VC IP}][,AT=g];
[5]	TST:PSLNK,VPATH,PSUCA=a,FARCA=b[,FARSN=f][[,ENH] [,DELAY][,TRACE][, {VP VC IP}][,AT=g];
[6]	TST:PSLNK,VPATH,PSU=c-d,FARCA=b[,FARSN=f][[,ENH] [,DELAY][,TRACE][, {VP VC IP}][,AT=g];
[7]	TST:PSLNK,VPATH,PSALNK=c-d-e,FARCA=b[,FARSN=f][[,ENH] [,DELAY][,TRACE][, {VP VC IP}][,AT=g];

3. EXPLANATION OF MESSAGE

ENH	= Enhancement option for more rigorous verification of the "tag" or "Source ID" field in the ATM loop back cell. With this option, the far endpoint and the virtual path taken by the responding loop back cell are explicitly verified. Refer to the PURPOSE section for more complete explanation. This test is only to be used between PSU CA end points.
DELAY	= Perform the same tests as specified in the enhancement option and in addition specifies that the ATM delay time between PSU CA end points be displayed.
IP	= Internet protocol. This parameter is only valid for PHE4 initiated tests.
TRACE	= Perform the same tests as specified in the enhancement option and in addition specifies that a trace of the far PSU CA endpoints routing data be executed. This parameter is only valid for PHA2 initiated tests.
VC	= Virtual channel option specifies that a virtual channel test be executed. This parameter is only valid for PHA2 initiated tests.
VP	= Virtual path option specifies that a virtual path test be executed. This parameter is only valid for PHA2 initiated tests.
a	= Near end PSU community address (a non-zero number) of the PSU link or virtual path.
b	= Far end PSU community address (a non-zero number) of a PSU link or of a virtual path.
c	= Switching module (SM) number.
d	= PSU number.
e	= PSU link number. This parameter is only valid for PHA2 initiated tests.
f	= Far subnetwork number. This parameter is only valid for PHA2 and PHE4 initiated tests.
g	= Application type. Valid value(s): H = High priority application. L = Low priority application. Note: Low priority application is only supported within the same switch.

This parameter is only valid for PHA2 and PHE4 initiated tests.

4. SYSTEM RESPONSE

- NG = No good. The request has been denied. The message is valid but the request conflicts with current equipage or status.
- PF = Printout follows. Followed by the TST:PSLNK output message.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Output Message(s):
TST:PSLNK

Input Appendix(es):
APP:RANGES

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID TST:PSUPH-FAULT-A
RELEASE 5E15 only
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the specified software fault be inserted into a packet switch unit (PSU) protocol handler (PH).

Warning: *The user is responsible for any effects on system operation that result from the use of this input message. Use of this message can lead to a service outage. Know the effects of the message before using it.*

2. FORMAT

TST:PSUPH=a-b-c-d,FAULT=e[-f[-g...[-n]][,COUNT=o];

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = PSU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Protocol handler number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e-n = ID number(s) for the desired software fault.
- o = Number of times to execute specified test (default is 1).

4. SYSTEM RESPONSE

NA = No acknowledgement. This response is expected due to potential for recovery action.

5. REFERENCES

Input Appendix(es):
APP:RANGES

MCC Display Page(s):
118x (PSU SHELF)
1186 (PSU NETWORK)
1187 (PSU LINK STATUS)

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID TST:PSUPH-FAULT-B
RELEASE 5E16(1) and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests that the specified software fault be inserted into a packet switch unit (PSU) protocol handler (PH).

Warning: *The user is responsible for any effects on system operation that result from the use of this input message. Use of this message can lead to a service outage. Know the effects of the message before using it.*

2. FORMAT

TST:PSUPH=a-b-c-d,FAULT=e[-f[-g...[-n]][,COUNT=o];

3. EXPLANATION OF MESSAGE

- a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = PSU number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Protocol handler number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e-n = ID number(s) for the desired software fault.
- o = Number of times to execute specified test (default is 1).

4. SYSTEM RESPONSE

NA = No acknowledgement. This response is expected due to potential for recovery action.

5. REFERENCES

Input Appendix(es):
APP:RANGES

MCC Display Page(s):
PSU SHELF
PSU NETWORK
PSU LINK STATUS

ID TST:RATE
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests that a rate query be sent to the real time rating system (RTRS) database to verify its operation.

It should be noted that optional fields specified in this message which are not valid for that query type will be ignored. The query request will be processed as if they were not entered.

2. FORMAT

```
TST:RATE=a-b-c-d-e-f-g-h-i[,PTP][,CTYP=j][,ACI][,STYP=k]
[,DUR=l][,CCL=m][,CCRD=n][,CU104][,CMCD=o][,CP104][,BAL=p]
[,MQD=q][,CRS=r][,API=s][,SC=t][,A0=u][,FNE=v][,SAS=w][,PCCS=x][,FMS]
[,SRCHTYP1=y-z][,SRCHTYP2=a'-b'][,DATYPE=c'][,PAYCOMP=d'];
```

3. EXPLANATION OF MESSAGE

ACI	= Automated call indicator. Absence of this indicates that the call was operator-handled.												
CP104	= Comparison card 10+4 indicator. Indicates that the comparison card was a 10+4 card. Absence of this implies some other kind of calling card.												
CU104	= Customer card 10+4 indicator. Indicates that the customer calling card was a 10+4 card. Absence of this implies some other kind of calling card.												
FMS	= Flat and measured services indicator. Specifies that both flat and measured services rates are requested in the rating reply.												
PTP	= Person-to-person indicator. Absence of this indicates that the call was station-to-station.												
a	= The originating ten digit directory number.												
b	= The terminating directory number. For a U.S. number, this is a ten digit directory number. For an international number, this is the country code followed by the national number.												
c	= The carrier ID. For an interexchange carrier, this is the four-digit carrier code. For a non-interexchange carrier, use 16383 for the carrier code.												
d	= Number of days that have elapsed between the start of the current year and the day the call started.												
e	= Hour of the start time of the call (0 to 23).												
f	= Minutes of the start time of the call (0 to 59).												
g	= Seconds of the start time of the call (0 to 59).												
h	= The query type. Valid value(s): <table border="0" style="margin-left: 20px;"> <tr> <td>EC</td> <td>= End-of-call query.</td> </tr> <tr> <td>IC</td> <td>= Initial coin query.</td> </tr> <tr> <td>IN</td> <td>= Interim query.</td> </tr> <tr> <td>PLI</td> <td>= Purchase limits initial query.</td> </tr> <tr> <td>PLS</td> <td>= Purchase limits subsequent query.</td> </tr> <tr> <td>RQ</td> <td>= Rate quote query.</td> </tr> </table>	EC	= End-of-call query.	IC	= Initial coin query.	IN	= Interim query.	PLI	= Purchase limits initial query.	PLS	= Purchase limits subsequent query.	RQ	= Rate quote query.
EC	= End-of-call query.												
IC	= Initial coin query.												
IN	= Interim query.												
PLI	= Purchase limits initial query.												
PLS	= Purchase limits subsequent query.												
RQ	= Rate quote query.												
i	= The billing class. Valid value(s): <table border="0" style="margin-left: 20px;"> <tr> <td>ASP</td> <td>= Automatic charge quotation service (ACQS) sent-paid.</td> </tr> </table>	ASP	= Automatic charge quotation service (ACQS) sent-paid.										
ASP	= Automatic charge quotation service (ACQS) sent-paid.												

- CCB = Calling card billing.
COB = Collect billing.
CSP = Coin sent paid.
NSP = Non-coin/non-ACQS sent paid.
TNB = Third number billing.
- j = Call type. Valid value(s):
OM = Zero minus.
OP = Zero plus (default).
1P = One plus.
- k = Special type (STYP). Defaults to no special type. Valid value(s):
BLV = Busy line verification.
CC = Call completion.
CCTC = Call completion with time and charge.
DAC = Directory assistance call.
NCN = Non-coin notify.
TAC = Time & charge call.
- l = Duration (DUR) of the call in seconds. This is required if the query type is EC, IN or PLS.
- m = Country code length (CCL). This is required if the terminating directory number is an international number.
- n = Customer credit card (CCRD). This is an optional field for a calling card rate quote, T&C, or purchase limits initial or subsequent query. This is the vendor/issuer ID digits (first 2-7 digits of calling card). If the calling customer's card is a LEC(10+4) card, only 6 digits of the card should be entered. The card will be accepted even if 6 digits are not entered, but the rating results will be incorrect. Otherwise, the number of digits in the vendor/issuer ID should match their corresponding entries in the card recognition tables RC/V View 27.55.
- o = Comparison credit card (CMCD). This is an optional field for rate quote differentiation of card service charges queries. This is the vendor/issuer ID digits (first 2-7 digits of comparison card). If the comparison card is a LEC(10+4) card, only 6 digits of the card should be entered. The card will be accepted even if 6 digits are not entered, but the rating results will be incorrect. Otherwise, the number of digits in the vendor/issuer ID should match their corresponding entries in the card recognition tables. If this field is specified, the CCRD field above must also be included in the input message.
- p = Purchase limits balance (BAL) in pennies. This field is required if this is an initial purchase limits query request. The range of values is from 0 to 999999 (0-\$9999.99).
- q = Method of ACQS quote delivery. This is required if the billing class is ASP, the query type is EC or RQ and the ACQS rate distinction secure feature bit is active. Valid value(s):
FAX = FAX quote.
NWA = Network autoquote.
PLA = Private line autoquote.
VCQ = Voice quote.
- r = Card rate specifier (CRS). This is an optional field used to obtain rate quotes for calls billed to special cards. This field should only be entered if the billing class is "Calling card billing". The absence of this field should be interpreted as card rate = 0 (standard card rates).
- s = Access provider identifier (API). This is an optional field used to identify the source carrier for certain types of incoming feature group D (FGD) calls. It must be a valid carrier identification code (CIC). The API is four digits in length (0 to 9999).
- t = Service code (SC). This is an optional field used to obtain rate quotes for a specific set

of incoming FGD calls requiring access to operator service position system (OSPS) toll and assistance (T&A) features. It is used to identify specific services or billing arrangements based on the back number. The SC is four digits in length (0 to 9999).

- u = Automation offering (AO). This is an optional field used to identify the level of automation (type of treatment) associated with a given OSPS 0-/00- originated call. Valid value(s):
- APS = Automated position system handled.
 - NA = Not applicable (not used by call processing at this time).
 - OPER = Operator handled.
 - SWITCH = Switch (not used by call processing at this time).
- v = Forward number entry (FNE). This is an optional field used to identify who entered the forward number associated with a given OSPS 0-/00- originated call. Valid value(s):
- CUST = Customer entered the forward number at the APS.
 - NA = Not applicable (not used by call processing at this time).
 - OPER = Operator entered the forward number.
 - SWITCH = Switch (not used by call processing at this time).
- w = Special access service identifier (SASI). This is an optional field used to identify the special access service identifier associated with a special access call handling call. The range of values is from 1 to 10.
- x = Prior call completion status (PCCS). This is an optional field used to identify the prior call completion status associated with a special access call handling call. Valid value(s):
- NEG = Negative prior call completion status.
 - POS = Positive prior call completion status.
- y = Directory Assistance Search Type 1 (SRCHTYP1). This is an optional field used to identify the first search type value of a directory assistance call. The range of values is from 1 to 999.
- z = Number of searches for directory assistance search type 1 (SRCHTYP1). This is an optional field (used in conjunction with field y) used to identify the number of searches for directory assistance search type 1 of a directory assistance call. The range of values is from 1 to 999.
- a¹ = Directory assistance search type 2 (SRCHTYP2). This is an optional field used to identify the second search type value of a directory assistance call. The range of values is from 1 to 999.
- b¹ = Number of searches for directory assistance search type 2 (SRCHTYP2). This is an optional field (used in conjunction with field a¹) used to identify the number of searches for directory assistance search type 2 of a directory assistance call. The range of values is from 1 to 999.
- c' = Directory assistance type indicator (DATYPE). This is an optional field used to identify the directory assistance type for a directory assistance call. The range of values is from 1 to 20.
- d' = AMA - Record ANI II Digits payphone compensable parameter. This is an optional field used to identify if the Payphone Compensable Eligibility module should be appended. With the value of 0, the module is appended and the call is not payphone compensable. With the value of 1, the module is appended and the call is payphone compensable.

4. SYSTEM RESPONSE

- NG = No good. Valid value(s):

- AUTOMATION OFFERING REQUIRES THE CALL TYPE FIELD TO BE ZERO MINUS (0M) = The automated service access prompting (ASAP) module is appended when the automation offering field is populated. This module requires the call type field to be populated with zero minus (0M).
- AUTOMATION OFFERING REQUIRES THE FORWARD NUMBER ENTRY FIELD TO BE POPULATED = The ASAP module is appended when the automation offering field is populated. This module requires both the automation offering field and the forward number entry field to be populated.
- COMPARISON CARD VENDOR/ISSUER ID INVALID = The number of calling card digits specified for a comparison card is not 2 through 7 digits in the CMCD input field.
- CRS PERMITTED ONLY WITH CARD BILLING CLASS = The card rate specifier expects a billing class of calling card.
- CUSTOMER VENDOR/ISSUER ID INVALID = The number of calling card digits specified for a calling customer is not 2 through 7 digits in the CCRD input field.
- CUSTOMER VENDOR/ISSUER ID MISSING = A comparison card vendor/issuer ID has been specified without indicating a customer vendor/issuer ID in the input message.
- DURATION EXCEEDED = The DUR field for EC and IN query types cannot exceed a value of 12 hours in seconds.
- DURATION MISSING = DUR is required for query type of IN, EC, or PLS. This response is also printed if a duration of zero is specified.
- FEATURE NOT AVAILABLE = The requested action failed. The feature required to process the request is not present in the switch or the given module.
- FLAT AND MEASURED SERVICES (FMS) AND CALLING CARDS (CCRD) ARE MUTUALLY EXCLUSIVE = The requested action failed. The flat and measured services (FMS) feature does not work with calling cards.
- FLAT AND MEASURED SERVICES (FMS) REQUIRES THE CALL TYPE FIELD TO BE ONE PLUS (1P) = The requested action failed. The flat and measured services (FMS) feature only works when prefix is 1+.
- FLAT AND MEASURED SERVICES (FMS) REQUIRES THE BILL CLASS FIELD TO BE OTHER SPECIAL (NSP) = The requested action failed. The flat and measured services (FMS) feature only works when the billing class is non-coin/non-ACQS sent paid.
- FLAT AND MEASURED SERVICES (FMS) REQUIRES THE SPECIAL TYPE FIELD TO BE NO SPECIAL TYPE = The requested action failed. The flat and measured services (FMS) feature only works when there is no special type.
- FORWARD NUMBER ENTRY REQUIRES THE AUTOMATION OFFERING FIELD TO BE POPULATED = The ASAP module is appended when the automation offering field is populated. This module requires both the automation offering field and the forward number entry field to be populated. Since the forward number entry field is populated and the automation offering field is not, the query cannot be processed with this lack of information.
- METHOD OF QUOTE DELIVERY INVALID = The MQD field must not be entered if the billing class is not ASP and the ACQS rate distinction secure feature bit is not active.
- METHOD OF QUOTE DELIVERY MISSING = The MQD field must be entered for a billing class of ASP when the ACQS rate distinction secure feature bit is active.
- NUMBER OF SEARCHES FOR SEARCH TYPE 1 MISSING = The number of searches for directory assistance search type 1 must be entered if a value for the first directory assistance search type has been entered.
- NUMBER OF SEARCHES FOR SEARCH TYPE 2 MISSING = The number of searches for directory assistance search type 2 must be entered if a value for the second directory assistance search type has been entered.
- ORIGINATING DN = The originating directory number must be ten digits.

- PRIOR CALL COMPLETION STATUS MISSING = The PCCS field must be entered if a value for the SASI field has been entered.
- PURCHASE LIMITS BALANCE OUT OF RANGE = The BAL field for a PLI query cannot exceed a value of \$9999.99 in pennies. This response is also printed if the BAL field is not specified for a PLI rating test query.
- PURCHASE LIMITS DURATION EXCEEDED = The DUR field for a subsequent PLS query cannot exceed a value of 48 hours in seconds.
- QUERY TYPE/BILLING CLASS INVALID = The billing class of ASP requires a query type of EC or RQ when the ACQS rate distinction secure feature bit is active.
- SEARCH TYPE 1 MISSING = The value of the first directory assistance search type must be entered if a value has been entered for the number of searches for directory assistance search type 1.
- SEARCH TYPE 2 MISSING = The value of the second directory assistance search type must be entered if a value has been entered for the number of searches for directory assistance search type 2.
- SPECIAL ACCESS SERVICE IDENTIFIER MISSING = The SASI field must be entered if a value for the PCCS field has been entered.
- TERMINATING DN = The terminating directory number must be either a ten digit U.S. number or a country code and national number with the length of the country code specified using the keyword CCL.
- UNABLE TO SEND QUERY = The query could not be sent to the RTRS database.

PF = Printout follows. The request has been received. Followed by the TST:RATE output message.

RL = Retry later. Valid value(s):

- TEST IN PROGRESS = Another RTRS test is in progress.
- TOO MANY QUERIES RUNNING = No RATE query IDs are available.

5. REFERENCES

Input Message(s):

EXC:DSTT
TST:BNS
TST:CAS
TST:CCRD
TST:INWATS
TST:NCD

Output Message(s):

EXC:DSTT
TST:BNS
TST:CAS
TST:CCRD
TST:INWATS
TST:NCD
TST:RATE

RC/V View(s):

27.55 (OSPS TELEPHONE CREDIT CARD IDENTIFICATION)

ID TST:TRK-A
RELEASE 5E15 only
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests automatic operational or transmission tests on individual trunks, a range of trunks in a trunk group, or an entire trunk group. In addition, X.25 access on T1 (XAT) ports and packet handler voice (PHV) speech handler trunks can be tested using this message, with corresponding additional identifiers.

Note: For Cell site and IVT APX trunks, the ECP must be notified before a test can be run.

For the APX trunks only, the trunk status will be changed to OOS before the trunk is tested and the trunk will be restored to its original status when the test is complete. For all others, when the tests are completed, the trunk will be restored to the state that it was in before being tested.

This message cannot be used to run explicit hardware tests. Refer to the DGN:TEN and DGN:DFI input messages for hardware tests of analog and digital trunks, respectively.

Format 1 (TKGMN) allows for a single trunk or a range of trunks in a trunk group to be tested.

Format 2 (TEN) tests a single analog trunk.

Format 3 (DEN) tests a single digital trunk.

Format 4 network equipment number (NEN) tests a single trunk on a digital network unit - synchronous optical network (SONET) (DNU-S).

Format 5 (TG) tests a trunk group.

Format 6 (MLHG) tests a trunk that has multi-line hunt group and member associated with it. Currently this includes XAT ports.

Format 7 (PKTDN) tests a trunk that has a packet directory number associated with it. Currently this includes XAT ports.

Format 8 (PLTEN) tests a trunk that has a peripheral control and timing (PCT) line and trunk equipment number associated with it.

Format 9 (SLEN) tests a *SLC*® line equipment number.

Format 10 (ILEN) tests an integrated digital carrier unit line equipment number.

Format 11 (PSUEN) test a single protocol handler channel. Currently this includes speech handler trunks on PHV ports.

Format 12 (INEN) tests a single digital trunk.

2. FORMAT

- [1] TST:TRK,TKGMN=a-b[&&c][,PRINT][,RPT=n][,TYPE=o][,OPDN=p][,DUR=q][,BLKSZ=r];
- [2] TST:TRK,TEN=d-e-f-g-h[,PRINT][,RPT=n][,TYPE=o][,OPDN=p];
- [3] TST:TRK,DEN=d-j-k-l[,PRINT][,RPT=n][,TYPE=o][,OPDN=p][,DUR=q][,BLKSZ=r];
- [4] TST:TRK,NEN=d-a¹-b¹-c¹-d¹-e¹-f¹-g¹[,PRINT][,RPT=n][,TYPE=o][,OPDN=p][,DUR=q][,BLKSZ=r];
- [5] TST:TRK,TG=m[,PRINT][,RPT=n][,TYPE=o][,OPDN=p][,DUR=q][,BLKSZ=r];
- [6] TST:TRK,MLHG=s-t[,PRINT][,RPT=n][,TYPE=o][,DUR=q][,BLKSZ=r];
- [7] TST:TRK,PKTDN=u[,PRINT][,RPT=n][,TYPE=o][,DUR=q][,BLKSZ=r];

```
[8]      TST:TRK,PLTEN=d-k1-l1-m1-n1[,PRINT][,RPT=n][,TYPE=o][,DUR=q][,BLKSZ=r];
[9]      TST:TRK,SLEN=d-w-x-y[,PRINT][,RPT=n][,TYPE=o][,OPDN=p];
[10]     TST:TRK,ILEN=d-z-x-y[,PRINT][,RPT=n][,TYPE=o][,OPDN=p];
[11]     TST:TRK,PSUEN=d-h1-i1-j1[,PRINT][,RPT=n][,TYPE=o];
[12]     TST:TRK,INEN=d-a1-x-y[,PRINT][,RPT=n][,TYPE=o][,OPDN=p];
```

3. EXPLANATION OF MESSAGE

- Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.
- PRINT = Print the output generated from this request on the ROP. By default, if the request is entered from the Master Control Center (MCC) it prints on the ROP or if the request is entered from a terminal (TTY) other than the MCC the output will then only print on that TTY.
- RPT = Repeat the test.
- a = Trunk group number.
- b = Trunk member number or lower limit of range of trunk group member numbers.
- c = Upper limit of range of trunk group member numbers.
- d = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Trunk unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- g = Channel board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- h = Circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- j = Digital line and trunk unit (DLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- k = Digital facility interface (DFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- l = Channel number. If this is a DFI-1, there is only one facility, channels 1-24. If this is a DFI-2, channels 1-24 are associated with facility T1 A and channels 25-48 are associated with facility T1 B. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- m = Trunk group number. Each member of the group will be tested, and output will be reported for each trunk.
- n = Number of times to run test. (1-32, default 1).
If a value greater than 32 is specified, only 32 tests will be run. The output will be in a form that summarizes the results of all tests run.
- o = The type of test to be executed.
Transmission tests (refer to Exhibit A).
If no test type is specified, the office-defined default operational test type for the trunk group, if one exists, will be run.

The default test for packet switching trunks and XAT ports is an LBKOCU operational test, with a loopback (LBK) termination point at the office channel unit (OCU) interswitch transmission equipment.

Note that the only valid test types for packet switching trunks and XAT ports are LBKOCU and LBKCSU, a LBK termination point at the channel service unit (CSU) interswitch transmission equipment. Requests for any other test type on a packet switching trunk or an XAT port will be rejected.

Operational tests. Valid value(s):

103 = Signal-supervisory test line.
CTX2 = Phase II Centrex test type.
CTX3 = Phase III Centrex test type.
NSYNC = Non-synchronous test line.
PERM = Permanent busy test line.
SYNC = Synchronous test line.
SXS = Step-by-step test type.

- p = Digits to be outpulsed for the specified test. If they are not specified, the office-defined default digits for the test type will be used. Note that outpulsing is not applicable during the testing of packet switching trunks. If optional digits are specified, they will be ignored.
- q = Duration of digital tests, in seconds (1-3600). Default = 2 seconds (operational test only).
- r = Number of consecutive binary digits that are contained in a block (1-64000). Consecutive blocks are transmitted during the test and the number of error-free blocks received from the far end is printed when the test ends.
- s = MLHG number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- t = MLHG member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- u = Directory number (DN).
- w = Digital carrier line unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- x = Remote terminal (RT) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- y = RT line number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- z = Integrated digital carrier unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- a¹ = Digital network unit - SONET (DNU-S) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b¹ = Data group (DG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c¹ = SONET terminal equipment (STE) facility number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d¹ = Synchronous transport signal (STS) facility number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e¹ = Virtual tributary group (VTG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

- f^1 = Virtual tributary member (VTM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- g^1 = Digital Signal Level 0 (DS0) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- h^1 = PSU community number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- i^1 = PSU channel group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- j^1 = PSU channel group member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- k^1 = PCT line and trunk unit (PLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- l^1 = PCT facility interface (PCTFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- m^1 = Tributary number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- n^1 = Channel number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

Exhibit A: TYPES OF TRANSMISSION TESTS

Test Type	Measurement	Expected Level	Filter	Remarks
100	Level	0dBm0	1004Hz	Near end
100	Noise	--	C-message	
100RL	Level	0dBm0	1004Hz	Near end
100RL	Noise	--	C-message	
100RL	Echo return loss	Band-limited noise	--	
100RL	Singing return loss (low frequency)	Band-limited noise	--	
100RL	Singing return loss (high frequency)	Band-limited noise	--	
100ERL	Level	0dBm0	1004Hz	Near end
100ERL	Noise	--	C-message	
100ERL	Echo return loss	Band-limited noise		
100SRL	Level	0dBm0	1004Hz	Near end
100SRL	Noise	--	C-message	
100SRL	Singing return loss (low frequency)	Band-limited noise		
100SHI	Level	0dBm0	1004Hz	Near end
100SHI	Noise	--	--	
100SHI	Singing return loss (high frequency)	Band-limited noise	C-message	
102LB	Level	0dBm0	1004Hz	Near end
102	Level	0dBm	1004Hz	Both ends
102	Noise	--	C-message	

Test Type	Measurement	Expected Level	Filter	Remarks
105ALL	--	--	--	All 105 & CSTS not run
105L	Level	0dBm0	1004Hz	Both ends
105RN	Noise	--	C-message	Near end
105N	Noise	--	C-message	Far end
105L4	Level	-16dBm0	404Hz	Both ends
105L10	Level	-16dBm0	1004Hz	Both ends
105L28	Level	-16dBm0	2804Hz	Both ends
105NT	Noise with tone	--	1004Hz notch	Both ends
105ERL	Echo return loss	Band-limited noise	--	Both ends
105SRL	Singing return loss (low frequency)	Band-limited noise	--	Both ends
105SHI	Singing return loss (high frequency)	Band-limited noise	--	Both ends
106	Far to near loss	0dBm0	--	TR looped
106	Near to far loss	--	--	to T1 R1
CONT	Voice path assurance test tones and levels are trunk dependent.			CCS trunks only

- Note 1: The standard 105 test includes: 105L, 105RN, 105N, and 105NT.
Note 2: The 105RL (return loss) test includes: 105ERL, 105SRL, and 105SHI.
Note 3: The 105GS (gain slope) test includes: 105L4, 105L10, and 105L28.
Note 4: The 105ALL test includes the following 105 test line tests: 105L, 105RN, 105N, 105L4, 105L10, 105L28, and 105NT.
Note 5: 102LB test executes 1004 Hz at 0dB transmission and C-message noise filter used in measurement for noise. This test was designed for APX BSSAPS2 and IVT trunks.

Exhibit B: TYPES OF DIGITAL TESTS

Test Type	Measurement	Ideal Level	Remarks
LBK	Bit error rate	0.00E 00	Non-inverting test
LBK	Error free blocks	errors per bit	line at far end
LBKCSU	Bit error rate	0.00E 00	Packet switched
LBKCSU	Error free blocks	errors per bit	trunks only
LBKINV	Bit error rate	0.00E 00	Inverting test
LBKINV	Error free blocks	errors per bit	line at far end
LBKOCU	Bit error rate	0.00E 00	Packet switched
LBKOCU	Error free blocks	errors per bit	trunks only
MANSCRE	Bit error rate	0.00E 00	Manually initiated
MANSCRE	Error free blocks	errors per bit	non-inverting loopback at far end
SHCT	Bit error rate	0.00E 00	Speech handler
SHCT	Error free blocks	errors per bit	trunks only

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted, and will be followed by a TST:TRK output message.
- RL = Retry later. The request has been denied due to the system load. The OP:JOBSTATUS input message can be used to determine if the RL was issued because the maximum number of jobs are active.

5. REFERENCES

Input Message(s):

DGN:DFI
DGN:TEN
OP:JOBSTATUS

Output Message(s):

TST:TRK

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-190-115 *Local and Toll System Features*
235-190-120 *Common Channel Signaling Service Features*
235-900-113 *Product Specification*

RC/V View(s):

5.1 (TRUNK GROUP)
14.1 (AUTO TRUNK TEST)

ID TST:TRK-B
RELEASE 5E16(1) - 5E19(1)
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests automatic operational or transmission tests on individual trunks, a range of trunks in a trunk group, or an entire trunk group. In addition, X.25 access on T1 (XAT) ports and packet handler voice (PHV) speech handler trunks can be tested using this message, with corresponding additional identifiers.

Note: For Cell site and IVT APX trunks, the ECP must be notified before a test can be run.

For the APX trunks only, the trunk status will be changed to OOS before the trunk is tested and the trunk will be restored to its original status when the test is complete. For all others, when the tests are completed, the trunk will be restored to the state that it was in before being tested.

This message cannot be used to run explicit hardware tests. Refer to the DGN:TEN and DGN:DFI input messages for hardware tests of analog and digital trunks, respectively.

Format 1 (TKGMN) allows for a single trunk or a range of trunks in a trunk group to be tested.

Format 2 (TEN) tests a single analog trunk.

Format 3 (DEN) tests a single digital trunk.

Format 4 network equipment number (NEN) tests a single trunk on a digital network unit - synchronous optical network (SONET) (DNU-S).

Format 5 tests a trunk group.

Format 6 tests a trunk that has multi-line hunt group and member associated with it. Currently this includes XAT ports.

Format 7 tests a trunk that has a packet directory number associated with it. Currently this includes XAT ports.

Format 8 tests a trunk that has a peripheral control and timing (PCT) line and trunk equipment number associated with it.

Format 9 tests a *SLC*® line equipment number.

Format 10 tests an integrated digital carrier unit line equipment number.

Format 11 tests a single protocol handler channel. Currently this includes speech handler trunks on PHV ports.

Format 12 tests a single digital trunk.

Format 13 tests a virtual packet trunk.

Format 14 tests an optical interface unit equipment number.

2. FORMAT

- [1] TST:TRK,TKGMN=a-b[&&c][,PRINT][,RPT=n][,TYPE=o][,OPDN=p][,DUR=q][,BLKSZ=r][,CAMP=r¹];
- [2] TST:TRK,TEN=d-e-f-g-h[,PRINT][,RPT=n][,TYPE=o][,OPDN=p][,CAMP=r¹];
- [3] TST:TRK,DEN=d-j-k-l[,PRINT][,RPT=n][,TYPE=o][,OPDN=p][,DUR=q][,BLKSZ=r][,CAMP=r¹];
- [4] TST:TRK,NEN=d-a¹-b¹-c¹-d¹-e¹-f¹-g¹[,PRINT][,RPT=n][,TYPE=o][,OPDN=p][,DUR=q][,BLKSZ=r][,CAMP=r¹];

```
[5]    TST:TRK,TG=m[,PRINT][,RPT=n[,TYPE=o[,OPDN=p[,DUR=q[,BLKSZ=r]
      [,CAMP=r1];
[6]    TST:TRK,MLHG=s-t[,PRINT][,RPT=n[,TYPE=o[,DUR=q[,BLKSZ=r[,CAMP=r1];
[7]    TST:TRK,PKTDN=u[,PRINT][,RPT=n[,TYPE=o[,DUR=q[,BLKSZ=r[,CAMP=r1];
[8]    TST:TRK,PLTEN=d-l1-m1-n1-o1[,PRINT][,RPT=n[,TYPE=o[,DUR=q[,BLKSZ=r]
      [,CAMP=r1];
[9]    TST:TRK,SLEN=d-w-x-y[,PRINT][,RPT=n[,TYPE=o[,OPDN=p[,CAMP=r1];
[10]   TST:TRK,ILEN=d-z-x-y[,PRINT][,RPT=n[,TYPE=o[,OPDN=p[,CAMP=r1];
[11]   TST:TRK,PSUEN=d-h1-i1-j1-k1[,PRINT][,RPT=n[,TYPE=o[,CAMP=r1];
[12]   TST:TRK,INEN=d-a1-x-y[,PRINT][,RPT=n[,TYPE=o[,OPDN=p[,CAMP=r1];
[13]   TST:TRK,VRTX=d-p1-q1[,PRINT][,RPT=n[,TYPE=o[,OPDN=p[,DUR=q]
      [,BLKSZ=r[,CAMP=r1];
[14]   TST:TRK,OIUEN=d-s1-t1-u1-d1-e1-f1-g1[,PRINT][,RPT=n[,TYPE=o[,OPDN=p]
      [,DUR=q[,BLKSZ=r[,CAMP=r1];
```

3. EXPLANATION OF MESSAGE

Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

PRINT = Print the output generated from this request on the ROP. By default, if the request is entered from the Master Control Center (MCC) it prints on the ROP or if the request is entered from a terminal (TTY) other than the MCC the output will then only print on that TTY.

RPT = Repeat the test.

a = Trunk group number.

b = Trunk member number or lower limit of range of trunk group member numbers.

c = Upper limit of range of trunk group member numbers.

d = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

e = Trunk unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

f = Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

g = Channel board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

h = Circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

j = Digital line and trunk unit (DLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

k = Digital facility interface (DFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

l = Channel number. If this is a DFI-1, there is only one facility, channels 1-24. If this is a DFI-2, channels 1-24 are associated with facility T1 A and channels 25-48 are associated with facility T1 B. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

m = Trunk group number. Each member of the group will be tested, and output will be reported for each trunk.

n = Number of times to run test. (1-32, default 1).

If a value greater than 32 is specified, only 32 tests will be run. The output will be in a form that summarizes the results of all tests run.

o = The type of test to be executed.

Transmission tests. Refer to the APP:TRANS-TESTS appendix in the Appendixes section of the Input Messages manual.

If no test type is specified, the office-defined default operational test type for the trunk group, if one exists, will be run.

The default test for packet switching trunks and XAT ports is an LBKOCU operational test, with a loopback (LBK) termination point at the office channel unit (OCU) interswitch transmission equipment.

Note that the only valid test types for packet switching trunks and XAT ports are LBKOCU and LBKCSU, a LBK termination point at the channel service unit (CSU) interswitch transmission equipment. Requests for any other test type on a packet switching trunk or an XAT port will be rejected.

Operational tests. Valid value(s):

103	= Signal-supervisory test line.
CTX2	= Phase II Centrex test type.
CTX3	= Phase III Centrex test type.
NSYNC	= Non-synchronous test line.
PERM	= Permanent busy test line.
SYNC	= Synchronous test line.
SXS	= Step-by-step test type.

p = Digits to be outpulsed for the specified test. If they are not specified, the office-defined default digits for the test type will be used. Note that outpulsing is not applicable during the testing of packet switching trunks. If optional digits are specified, they will be ignored.

q = Duration of digital tests, in seconds (1-3600). Default = 2 seconds (operational test only).

r = Number of consecutive binary digits that are contained in a block (1-64000). Consecutive blocks are transmitted during the test and the number of error-free blocks received from the far end is printed when the test ends.

s = MLHG number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

t = MLHG member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

u = Directory number (DN).

w = Digital carrier line unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

x = Remote terminal (RT) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

y = RT line number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

z = Integrated digital carrier unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

a¹ = Digital network unit - SONET (DNU-S) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

b ¹	= Data group (DG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
c ¹	= SONET terminal equipment (STE) facility number.
d ¹	= Synchronous transport signal (STS) facility number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
e ¹	= Virtual tributary group (VTG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
f ¹	= Virtual tributary member (VTM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
g ¹	= Digital Signal Level 0 (DS0) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
h ¹	= PSU unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
i ¹	= PSU shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
j ¹	= PSU channel group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
k ¹	= PSU channel group member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
l ¹	= PCT line and trunk unit (PLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
m ¹	= PCT facility interface (PCTFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
n ¹	= Tributary number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
o ¹	= Channel number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
p ¹	= Virtual trunk facility number.
q ¹	= Virtual trunk channel number.
r ¹	= Camp-on (CAMP) time (15-3600). The test camps-on for the time specified (in seconds), waiting for the required resources to become available, at which time testing may proceed. If the resources do not become available in the specified time, the test is aborted.
s ¹	= Optical interface unit (OIU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
t ¹	= Protection group (PG) number.
u ¹	= OC-3 STE number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

PF	= Printout follows. The request has been accepted, and will be followed by a TST:TRK output message.
RL	= Retry later. The request has been denied due to the system load. The OP:JOBSTATUS input message can be used to determine if the RL was issued because the maximum number of jobs are active.

5. REFERENCES

Input Message(s):

DGN:DFI
DGN:TEN
OP:JOBSTATUS

Output Message(s):

TST:TRK

Input Appendix(es):

APP:DIG-TESTS
APP:RANGES
APP:TRANS-TESTS

Other Manual(s):

235-190-115 *Local and Toll System Features*
235-200-115 *CNI Common Channel Signaling*
235-200-116 *Signaling Gateway Common Channel Signaling*
235-900-113 *Product Specification*

RC/V View(s):

5.1 TRUNK GROUP
14.1 AUTO TRUNK TEST

ID TST:TRK-C
RELEASE 5E20(1) only
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests automatic operational or transmission tests on individual trunks, a range of trunks in a trunk group, or an entire trunk group. In addition, X.25 access on T1 (XAT) ports and packet handler voice (PHV) speech handler trunks can be tested using this message, with corresponding additional identifiers.

Note: For cell site and IVT APX trunks, the ECP must be notified before a test can be run.

For the APX trunks only, the trunk status will be changed to OOS before the trunk is tested and the trunk will be restored to its original status when the test is complete. For all others, when the tests are completed, the trunk will be restored to the state that it was in before being tested.

This message cannot be used to run explicit hardware tests. Refer to the DGN:TEN and DGN:DFI input messages for hardware tests of analog and digital trunks, respectively.

Format 1 (TKGMN) allows for a single trunk or a range of trunks in a trunk group to be tested.

Format 2 (TEN) tests a single analog trunk.

Format 3 (DEN) tests a single digital trunk.

Format 4 network equipment number (NEN) tests a single trunk on a digital network unit - synchronous optical network (SONET) (DNU-S).

Format 5 tests a trunk group.

Format 6 tests a trunk that has multi-line hunt group and member associated with it. Currently this includes XAT ports.

Format 7 tests a trunk that has a packet directory number associated with it. Currently this includes XAT ports.

Format 8 tests a trunk that has a peripheral control and timing (PCT) line and trunk equipment number associated with it.

Format 9 tests a SLC® line equipment number.

Format 10 tests an integrated digital carrier unit line equipment number.

Format 11 tests a single protocol handler channel. Currently this includes speech handler trunks and circuit vocoder trunks on PHV ports.

Format 12 tests a single digital trunk.

Format 13 tests a virtual packet trunk.

Format 14 tests an optical interface unit equipment number.

2. FORMAT

```
[1] TST:TRK,TKGMN=a-b[&&c][,PRINT][,RPT=n][,TYPE=o]. . .  
    . . .[,OPDN=p][,DUR=q][,BLKSZ=r][,CODEC=v1][,CAMP=r1];  
  
[2] TST:TRK,TEN=d-e-f-g-h[,PRINT][,RPT=n][,TYPE=o]. . .  
    . . .[,OPDN=p][,CAMP=r1];  
  
[3] TST:TRK,DEN=d-j-k-l[,PRINT][,RPT=n][,TYPE=o]. . .  
    . . .[,OPDN=p][,DUR=q][,BLKSZ=r][,CAMP=r1];
```

[4]	TST:TRK,NEN=d-a ¹ -b ¹ -c ¹ -d ¹ -e ¹ -f ¹ -g ¹ [,PRINT].[,RPT=n][,TYPE=o][,OPDN=p][,DUR=q][,BLKSZ=r].[,CAMP=r ¹];
[5]	TST:TRK,TG=m[,PRINT][,RPT=n][,TYPE=o][,OPDN=p].[,DUR=q][,BLKSZ=r][,CODEC=v ¹][,CAMP=r ¹];
[6]	TST:TRK,MLHG=s-t[,PRINT][,RPT=n][,TYPE=o][,DUR=q].[,BLKSZ=r][,CAMP=r ¹];
[7]	TST:TRK,PKTDN=u[,PRINT][,RPT=n][,TYPE=o][,DUR=q].[,BLKSZ=r][,CAMP=r ¹];
[8]	TST:TRK,PLTEN=d-] ¹ -m ¹ -n ¹ -o ¹ [,PRINT].[,RPT=n][,TYPE=o][,DUR=q][,BLKSZ=r][,CAMP=r ¹];
[9]	TST:TRK,SLEN=d-w-x-y[,PRINT][,RPT=n][,TYPE=o].[,OPDN=p][,CAMP=r ¹];
[10]	TST:TRK,ILEN=d-z-x-y[,PRINT][,RPT=n][,TYPE=o].[,OPDN=p][,CAMP=r ¹];
[11]	TST:TRK,PSUEN=d-h ¹ -i ¹ -j ¹ -k ¹ [,PRINT].[,RPT=n][,TYPE=o][,CODEC=v ¹][,CAMP=r ¹];
[12]	TST:TRK,INEN=d-a ¹ -x-y[,PRINT][,RPT=n][,TYPE=o].[,OPDN=p][,CAMP=r ¹];
[13]	TST:TRK,VTRK=d-p ¹ -q ¹ [,PRINT][,RPT=n].[,TYPE=o][,OPDN=p][,DUR=q][,BLKSZ=r][,CAMP=r ¹];
[14]	TST:TRK,OIEN=d-s ¹ -t ¹ -u ¹ -d ¹ -e ¹ -f ¹ -g ¹ [,PRINT].[,RPT=n][,TYPE=o][,OPDN=p][,DUR=q][,BLKSZ=r].[,CAMP=r ¹];

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

PRINT	= Print the output generated from this request on the ROP. By default, if the request is entered from the Master Control Center (MCC) it prints on the ROP or if the request is entered from a terminal (TTY) other than the MCC the output will then only print on that TTY.
RPT	= Repeat the test.
a	= Trunk group number.
b	= Trunk member number or lower limit of range of trunk group member numbers.
c	= Upper limit of range of trunk group member numbers.
d	= Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
e	= Trunk unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
f	= Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
g	= Channel board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

- h = Circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- j = Digital line and trunk unit (DLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- k = Digital facility interface (DFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- l = Channel number. If this is a DFI-1, there is only one facility, channels 1-24. If this is a DFI-2, channels 1-24 are associated with facility T1 A and channels 25-48 are associated with facility T1 B. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- m = Trunk group number. Each member of the group will be tested, and output will be reported for each trunk.
- n = Number of times to run test. (1-32, default 1).
If a value greater than 32 is specified, only 32 tests will be run. The output will be in a form that summarizes the results of all tests run.
- o = The type of test to be executed.
Transmission tests. Refer to the APP:TRANS-TESTS appendix in the Appendixes section of the Input Messages manual.
If no test type is specified, the office-defined default operational test type for the trunk group, if one exists, will be run.
The default test for packet switching trunks and XAT ports is an LBKOCU operational test, with a loopback (LBK) termination point at the office channel unit (OCU) interswitch transmission equipment.
Note that the only valid test types for packet switching trunks and XAT ports are LBKOCU and LBKCSU, a LBK termination point at the channel service unit (CSU) interswitch transmission equipment. Requests for any other test type on a packet switching trunk or an XAT port will be rejected.
Operational tests. Valid value(s):
103 = Signal-supervisory test line.
CTX2 = Phase II Centrex test type.
CTX3 = Phase III Centrex test type.
NSYNC = Non-synchronous test line.
PERM = Permanent busy test line.
SYNC = Synchronous test line.
SXS = Step-by-step test type.
- p = Digits to be outpulsed for the specified test. If they are not specified, the office-defined default digits for the test type will be used. Note that outpulsing is not applicable during the testing of packet switching trunks. If optional digits are specified, they will be ignored.
- q = Duration of digital tests, in seconds (1-3600). Default = 2 seconds (operational test only).
- r = Number of consecutive binary digits that are contained in a block (1-64000). Consecutive blocks are transmitted during the test and the number of error-free blocks received from the far end is printed when the test ends.
- s = MLHG number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

t	= MLHG member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
u	= Directory number (DN).
w	= Digital carrier line unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
x	= Remote terminal (RT) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
y	= RT line number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
z	= Integrated digital carrier unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
a ¹	= Digital network unit - SONET (DNU-S) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
b ¹	= Data group (DG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
c ¹	= SONET terminal equipment (STE) facility number.
d ¹	= Synchronous transport signal (STS) facility number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
e ¹	= Virtual tributary group (VTG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
f ¹	= Virtual tributary member (VTM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
g ¹	= Digital Signal Level 0 (DS0) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
h ¹	= PSU unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
i ¹	= PSU shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
j ¹	= PSU channel group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
k ¹	= PSU channel group member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
l ¹	= PCT line and trunk unit (PLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
m ¹	= PCT facility interface (PCTFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
n ¹	= Tributary number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
o ¹	= Channel number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
p ¹	= Virtual trunk facility number.
q ¹	= Virtual trunk channel number.
r ¹	= Camp-on (CAMP) time (15-3600). The test camps-on for the time specified (in seconds), waiting for the required resources to become available, at which time testing may proceed. If the resources do not become available in the specified time, the test is aborted.

- s¹ = Optical interface unit (OIU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- t¹ = Protection group (PG) number.
- u¹ = OC-3 STE number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- v¹ = Algorithm specified. Valid value(s):
13K
G711
EVRC
EVRCB

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted, and will be followed by a TST:TRK output message.
- RL = Retry later. The request has been denied due to the system load. The OP:JOBSTATUS input message can be used to determine if the RL was issued because the maximum number of jobs are active.

5. REFERENCES

Input Message(s):

DGN:DFI
DGN:TEN
OP:JOBSTATUS

Output Message(s):

TST:TRK

Input Appendix(es):

APP:DIG-TESTS
APP:RANGES
APP:TRANS-TESTS

Other Manual(s):

235-190-115 *Local and Toll System Features*
235-200-115 *CNI Common Channel Signaling*
235-200-116 *Signaling Gateway Common Channel Signaling*
235-900-113 *Product Specification*

RC/V View(s):

5.1 TRUNK GROUP
14.1 AUTO TRUNK TEST

ID TST:TRK-D
RELEASE 5E21(1) and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests automatic operational or transmission tests on individual trunks, a range of trunks in a trunk group, or an entire trunk group. In addition, X.25 access on T1 (XAT) ports and packet handler voice (PHV) speech handler trunks can be tested using this message, with corresponding additional identifiers.

Note: For cell site and IVT APX trunks, the ECP must be notified before a test can be run.

For the APX trunks only, the trunk status will be changed to OOS before the trunk is tested and the trunk will be restored to its original status when the test is complete. For all others, when the tests are completed, the trunk will be restored to the state that it was in before being tested.

This message cannot be used to run explicit hardware tests. Refer to the DGN:TEN and DGN:DFI input messages for hardware tests of analog and digital trunks, respectively.

Format 1 (TKGMN) allows for a single trunk or a range of trunks in a trunk group to be tested.

Format 2 (TEN) tests a single analog trunk.

Format 3 (DEN) tests a single digital trunk.

Format 4 network equipment number (NEN) tests a single trunk on a digital network unit - synchronous optical network (SONET) (DNU-S).

Format 5 tests a trunk group.

Format 6 tests a trunk that has multi-line hunt group and member associated with it. Currently this includes XAT ports.

Format 7 tests a trunk that has a packet directory number associated with it. Currently this includes XAT ports.

Format 8 tests a trunk that has a peripheral control and timing (PCT) line and trunk equipment number associated with it.

Format 9 tests a SLC® line equipment number.

Format 10 tests an integrated digital carrier unit line equipment number.

Format 11 tests a single protocol handler channel. Currently this includes speech handler, circuit vocoder and SuperVoice trunks on PHV ports.

Format 12 tests a single digital trunk.

Format 13 tests a virtual packet trunk.

Format 14 tests an optical interface unit equipment number.

2. FORMAT

```
[1] TST:TRK,TKGMN=a-b[&&c][,PRINT][,RPT=n][,TYPE=o][,OPDN=p]. . .  
    . . .[,DUR=q][,BLKSZ=r][,FRMHDR=w1][,CODEC=v1][,CAMP=r1];  
[2] TST:TRK,TEN=d-e-f-g-h[,PRINT][,RPT=n][,TYPE=o]. . .  
    . . .[,OPDN=p][,CAMP=r1];  
[3] TST:TRK,DEN=d-j-k-l[,PRINT][,RPT=n][,TYPE=o]. . .  
    . . .[,OPDN=p][,DUR=q][,BLKSZ=r][,CAMP=r1];
```

[4]	TST:TRK,NEN=d-a ¹ -b ¹ -c ¹ -d ¹ -e ¹ -f ¹ -g ¹ [,PRINT].[,RPT=n][,TYPE=o][,OPDN=p][,DUR=q][,BLKSZ=r].[,CAMP=r ¹];
[5]	TST:TRK,TG=m[,PRINT][,RPT=n][,TYPE=o][,OPDN=p].[,DUR=q][,BLKSZ=r][,FRMHDR=w ¹][,CODEC=v ¹][,CAMP=r ¹];
[6]	TST:TRK,MLHG=s-t[,PRINT][,RPT=n][,TYPE=o][,DUR=q].[,BLKSZ=r][,CAMP=r ¹];
[7]	TST:TRK,PKTDN=u[,PRINT][,RPT=n][,TYPE=o][,DUR=q].[,BLKSZ=r][,CAMP=r ¹];
[8]	TST:TRK,PLTEN=d-] ¹ -m ¹ -n ¹ -o ¹ [,PRINT].[,RPT=n][,TYPE=o][,DUR=q][,BLKSZ=r][,CAMP=r ¹];
[9]	TST:TRK,SLLEN=d-w-x-y[,PRINT][,RPT=n][,TYPE=o].[,OPDN=p][,CAMP=r ¹];
[10]	TST:TRK,ILEN=d-z-x-y[,PRINT][,RPT=n][,TYPE=o].[,OPDN=p][,CAMP=r ¹];
[11]	TST:TRK,PSUEN=d-h ¹ -j ¹ -k ¹ [,PRINT][,RPT=n].[,TYPE=o][,FRMHDR=w ¹][,CODEC=v ¹][,CAMP=r ¹];
[12]	TST:TRK,INEN=d-a ¹ -x-y[,PRINT][,RPT=n][,TYPE=o].[,OPDN=p][,CAMP=r ¹];
[13]	TST:TRK,VTRK=d-p ¹ -q ¹ [,PRINT][,RPT=n].[,TYPE=o][,OPDN=p][,DUR=q][,BLKSZ=r][,CAMP=r ¹];
[14]	TST:TRK,OIUVEN=d-s ¹ -t ¹ -u ¹ -d ¹ -e ¹ -f ¹ -g ¹ [,PRINT].[,RPT=n][,TYPE=o][,OPDN=p][,DUR=q][,BLKSZ=r].[,CAMP=r ¹];

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

PRINT	= Print the output generated from this request on the ROP. By default, if the request is entered from the Master Control Center (MCC) it prints on the ROP or if the request is entered from a terminal (TTY) other than the MCC the output will then only print on that TTY.
RPT	= Repeat the test.
a	= Trunk group number.
b	= Trunk member number or lower limit of range of trunk group member numbers.
c	= Upper limit of range of trunk group member numbers.
d	= Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
e	= Trunk unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
f	= Service group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
g	= Channel board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

- h = Circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- j = Digital line and trunk unit (DLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- k = Digital facility interface (DFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- l = Channel number. If this is a DFI-1, there is only one facility, channels 1-24. If this is a DFI-2, channels 1-24 are associated with facility T1 A and channels 25-48 are associated with facility T1 B. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- m = Trunk group number. Each member of the group will be tested, and output will be reported for each trunk.
- n = Number of times to run test. (1-32, default 1).
If a value greater than 32 is specified, only 32 tests will be run. The output will be in a form that summarizes the results of all tests run.
- o = The type of test to be executed.
Transmission tests. Refer to the APP:TRANS-TESTS appendix in the Appendixes section of the Input Messages manual.
If no test type is specified, the office-defined default operational test type for the trunk group, if one exists, will be run.
The default test for packet switching trunks and XAT ports is an LBKOCU operational test, with a loopback (LBK) termination point at the office channel unit (OCU) interswitch transmission equipment.
Note that the only valid test types for packet switching trunks and XAT ports are LBKOCU and LBKCSU, a LBK termination point at the channel service unit (CSU) interswitch transmission equipment. Requests for any other test type on a packet switching trunk or an XAT port will be rejected.
Operational tests. Valid value(s):
103 = Signal-supervisory test line.
CTX2 = Phase II Centrex test type.
CTX3 = Phase III Centrex test type.
NSYNC = Non-synchronous test line.
PERM = Permanent busy test line.
SYNC = Synchronous test line.
SXS = Step-by-step test type.
- p = Digits to be outpulsed for the specified test. If they are not specified, the office-defined default digits for the test type will be used. Note that outpulsing is not applicable during the testing of packet switching trunks. If optional digits are specified, they will be ignored.
- q = Duration of digital tests, in seconds (1-3600). Default = 2 seconds (operational test only).
- r = Number of consecutive binary digits that are contained in a block (1-64000). Consecutive blocks are transmitted during the test and the number of error-free blocks received from the far end is printed when the test ends.
- s = MLHG number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

t	= MLHG member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
u	= Directory number (DN).
w	= Digital carrier line unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
x	= Remote terminal (RT) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
y	= RT line number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
z	= Integrated digital carrier unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
a ¹	= Digital network unit - SONET (DNU-S) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
b ¹	= Data group (DG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
c ¹	= SONET terminal equipment (STE) facility number.
d ¹	= Synchronous transport signal (STS) facility number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
e ¹	= Virtual tributary group (VTG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
f ¹	= Virtual tributary member (VTM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
g ¹	= Digital Signal Level 0 (DS0) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
h ¹	= PSU unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
i ¹	= PSU shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
j ¹	= PSU channel group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
k ¹	= PSU channel group member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
l ¹	= PCT line and trunk unit (PLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
m ¹	= PCT facility interface (PCTFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
n ¹	= Tributary number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
o ¹	= Channel number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
p ¹	= Virtual trunk facility number.
q ¹	= Virtual trunk channel number.
r ¹	= Camp-on (CAMP) time (15-3600). The test camps-on for the time specified (in seconds), waiting for the required resources to become available, at which time testing may proceed. If the resources do not become available in the specified time, the test is aborted.

- s¹ = Optical interface unit (OIU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- t¹ = Protection group (PG) number.
- u¹ = OC-3 STE number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- v¹ = Algorithm specified. Valid value(s):
13K
G711
EVRC
EVRCB
- w¹ = Frame Header Format. This option only can be specified for PVELBK test on SuperVoice(SV) trunks which have service type of SV. Valid value(s):
SH = Speech Handler format.
CV = Circuit Vocoder RTP format.

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted, and will be followed by a TST:TRK output message.
- RL = Retry later. The request has been denied due to the system load. The OP:JOBSTATUS input message can be used to determine if the RL was issued because the maximum number of jobs are active.

5. REFERENCES

Input Message(s):

DGN:DFI
DGN:TEN
OP:JOBSTATUS

Output Message(s):

TST:TRK

Input Appendix(es):

APP:DIG-TESTS
APP:RANGES
APP:TRANS-TESTS

Other Manual(s):

235-190-115 *Local and Toll System Features*
235-200-115 *CNI Common Channel Signaling*
235-200-116 *Signaling Gateway Common Channel Signaling*
235-900-113 *Product Specification*

RC/V View(s):

5.1 TRUNK GROUP
14.1 AUTO TRUNK TEST

ID TST:UMBIL
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests a test (connectivity exercise) of the connection of a host umbilical (UMBIL).

A UMBIL is a host umbilical between a host switching module (HSM) and an RSM. The test does not interfere with stable calls.

2. FORMAT

TST:UMBIL=a-b-c;

3. EXPLANATION OF MESSAGE

- a = Host switching module (HSM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Remote switching module (RSM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Host umbilical (UMBIL) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The message syntax is valid, but the request conflicts with current system or equipment status.
- PF = Printout follows. A TST:UMBIL output message follows in response to the request.
- RL = Retry later. The request cannot be executed now due to unavailable system resources.

5. REFERENCES

Input Message(s):
RMV:UMBIL
RST:UMBIL

Output Message(s):
TST:UMBIL

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):
1740,xxx,yyy (HOST UMBILICALS (1 - 10))
1741,xxx,yyy (HOST UMBILICALS (11 - 20))

ID TST:VFL
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Requests an automatic voice frequency link (VFL) test for a specified common channel signaling (CCS) link.

Each 2.4 or 4.8 kbps CCS link consists of a pair of VFLs; one active and the other standby. When a VFL test is requested for a CCS link, the test will always be run for the standby VFL. The CCS link to test is specified by its group number and member number.

2. FORMAT

TST:VFL,GRP=a,MEM=b;

3. EXPLANATION OF MESSAGE

- a = Group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- NG = No good. The request was unsuccessful because:
- Invalid group number was specified.
 - Invalid member number was specified.
 - Link is not 2.4 or 4.8 kbps.
 - Link is unequipped.
 - Link is manual out-of-service.
- PF = Printout follows. The request has been accepted and an output message will follow.

5. REFERENCES

Output Message(s):
TST:VFL

Output Appendix(es):
APP:RANGES

MCC Display Page(s):
CNI FRAME AND CCS STATUS DISPLAY PAGE

ID TST:WLINE
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION AEWNC

1. PURPOSE

Requests that the continuity of analog lines terminated on the W-card of WNC be tested and printed out.

2. FORMAT

TST:WLINE[,DN=a|,LCKEN=b-c-d-e-f|,ALL]

3. EXPLANATION OF MESSAGE

- a = The DN number of the analog line being tested.
- b = Switching module (SM) number.
- c = Integrated services line unit (ISLU2) number.
- d = Line group number.
- e = Line card number.
- f = Circuit number.

4. SYSTEM RESPONSE

- RL = Retry later. May also include:
 - PREVIOUS TEST STILL RUNNING
- PF = Printout follows. The request has been accepted and is followed by an TST:WLINE output message.

5. REFERENCES

Output Message(s):

Output Appendix(es):

Other Manual(s):

230-701-100 **Air ExtensionSM** *Reference Guide*

235-701-120 **Air Extension** *User Guide*

ID TST:WSAUTO
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests trunk and line work station (TLWS) automatic tests. The line or trunk to be tested must have been seized using the CONN:WSLINE, CONN:WSTRK, or CONN:WSIC input messages.

Note: This input message is the message interface between the line/trunk testing software and the TLWS numeric menu options (refer to MCC display page 160). Except for a request to remove a port from service (RST) or perform an utility call trace (UCT) the port being tested at the TLWS test position is released prior to performing the requested test. The test results from this input message are displayed only on the receive-only printer (ROP). Direct entry of this input message is not recommended. Instead, use the TLWS menu options or one of the following input messages: DGN:AIULC, DGN:TEN, DGN:ISLULC, DGN:ISLULCKT, EXC:LIT, EXC:ALE, RMV:LINE, RMV:TRK, RST:LINE, RST:TRK, TRC:UTIL, TST:DSL, or TST:TRK.

Format 1 runs the line insulation test (LIT) and diagnostics.

Format 2 is used to remove or restore the port to service. A remove from service request does not release the port from the test position.

Format 3 performs tests on digital subscriber lines (DSL).

Format 4 runs an automatic test call on a trunk.

Format 5 generates an automatic line evaluation report.

Format 6 generates an UCT on the port seized or camped on at the test position. The call trace is performed without releasing the port from the test position.

2. FORMAT

```
[1] TST:WSAUTO,TP=a,{LIT|DGN};
[2] TST:WSAUTO,TP=a,{RMV|RST}[ ,e][ ,UCL];
[3] TST:WSAUTO,TP=a,TSTDSL[ ,CHAN=e|ALL][ ,TERM=f][ ,TEST=k[-o]]
    [ ,DUR=g][ ,BLKSZ=h][ ,MODE=i][ ,ABER=j][ ,PS][ ,UCL][ ,V];
[4] TST:WSAUTO,TP=a,TSTTRK[ ,TYPE=c][ ,OPD=d][ ,DUR=g][ ,BLKSZ=h];
[5] TST:WSAUTO,TP=a,ALE=l,m[ ,n];
[6] TST:WSAUTO,TP=a,UCT;
```

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

ALL = Run the test on all the channels of the DSL.

PS = Run a loop-back test on a packet switched channel, or on a channel used to support on-demand packet switching using the assigned PH. The CHAN parameter is mandatory for this test to be executed.

UCL = When used with RST, restore the selected trunk or line unconditionally; do not run diagnostic tests.

When used with TSTDSDL on a selected ANSI¹ U-DSL, execute the test unconditionally and do not interrupt when the NT1 goes into test mode.

- V = Output all intermediate test results (that is, output is verbose). This option is useful when performing CRC or fault sectionalization tests.
- a = TLWS test position (TP) number.
- c = Type of automatic trunk test to be run (transmission and operation tests are available as listed below). If no test is specified, the office-defined default operational test type for the trunk group is run, if one exists.

Transmission tests (also, refer to Exhibit A of the TST:TRK message). Valid value(s):

- 100 = Balance.
- 102 = Milliwatt.
- 102LB = Milliwatt loopback.
- 103 = Signal-supervisory test line.
- 104 = Transmission measure and voice checking.
- 105 = Automatic transmission measuring.
- 106 = Far to near loss and near to far loss transmission measurement.
- CONT = Voice path assurance/continuity test line for common channel signaling (CCS) trunks.
- LBK = Digital loopback test.
- LBKCSU = Loopback test at the channel service unit (CSU) interswitch transmission equipment (for packet switching trunks only).
- LBKINV = Inverted digital loopback test.
- LBKOCU = Loopback test at the office channel unit (OCU) interswitch transmission equipment (for packet switching trunks only).
- LBKSHT = Loopback test, for a speech handler trunk, sends the digital bit stream in to the speech handler (SH). The SH sends the bit stream back in the same format. This is valid for speech handler trunks only.
- MANSRCE = Loopback test, for a packet-switching digital trunk sends the digital bit stream out to the far end switch. The far end switch sends the digital bit stream back in the same format.

Note: The far end switch must manually set the loopback prior to running this test.

Valid for packet switching trunks only.

Operational tests. Valid value(s):

- CTX2 = Phase II Centrex test type.
- CTX3 = Phase III Centrex test type.
- NSYNC = Non-synchronous test line.
- PERM = Permanent busy test line.
- SXS = Step-by-step test type.
- SYNC = Synchronous test line.

- d = Digits to be outputted, which may be specified when the test type is specified. If not specified, the office-defined default digits for the test type are used.
- e = Channel (CHAN) of the DSL. Valid value(s):
 - B1 = Run the test on the B1-channel.
 - B2 = Run the test on the B2-channel.
 - D = Run the test on the D-channel.
- f = Termination (TERM) point of the automatic digital subscriber line (DSL) test. Valid value(s):

1. Registered trademark of American National Standards Institute.

- CUUn = Loopback at a specified BRITE CU. This loopback is valid only for U-DSLs. For ANSI U-DSLs, 'n' = 1 through 6. For AMI U-DSLs, 'n' = 1 through 4.
- EXT = Loopback at an external connection to the far-end office. The digital bit stream is sent out and it is the far-end offices' option to send the bits back in the sent format or in an inverted format.
- LT = Loopback at the line termination. Default value for DSL (DSL only).
- NT1 = Loopback at the network termination (NT1). Default value for U-DSL (U-DSL only).
- PH = Loopback in the protocol handler (DSL only).
- g = Number of seconds that the automatic digital test will be run. For trunk tests, the duration ranges from 1 - 3600 and defaults to 2 seconds. For DSL tests, the duration ranges from 0 - 3600 and defaults to 20 seconds. If the test duration is 0 and TEST=CRC, only LT reads will be performed and delivered on output. Attempting to run loopback tests for zero duration will result in the test running for 1 second.
- h = Number of bits in the blocks to be sent (1 - 64000; default is 56000 for DSLs, 64000 for digital trunks).
- i = Mode of TSTD DSL test. Valid value(s):
 - SECT = Fault sectionalization test. This option requests loopback tests to sectionalize the fault beginning with the TERM specified below. The sectionalization mode of testing is used to automatically isolate the operative/faulty portion of a DSLs digital path or transmission loop. This is accomplished by dividing the path and loop into a finite number of testable sections that are delineated by the available LPBK terminations. The maximum number of test sections possible is 10 for ANSI U-DSLs, 8 for AMI U-DSLs and 3 for T-DSLs.
 - SEQ = Digital loopback test in sequential mode. This will result in a loopback test's being performed at the specified loopback point and at every loopback point in toward the switch.
- j = Acceptable bit error rate (0 - 9, default 6) for circuit switched loopbacks. The value 1 - 9 is an absolute value of the exponent of the error rate accepted (10^{-1} - 10^{-9}). One presents a less stringent error rate specification. Nine pre represents the most strict error rate. If ABER=0 (valid only with the SECT option) each termination will be tested regardless of the error rate detected.
- k = Test type of TSTD DSL. Valid value(s):
 - CRC = Corrupt cyclic redundancy check (CRC) test. This test causes CRC errors which will increment the level 1 error counts. This test is valid only on ANSI U-DSL.
 - MSMTCH = Manual line termination (LT)/network termination (NT) mismatch test. This test detects layer 1 mismatch between the type of U-card and NT or the first BRITE CU. This test is valid only on U-DSL.
- l = Automatic line evaluation (ALE) session type. Valid value(s):
 - ALL = All of the below (default).
 - LEVEL1 = Applies to U-DSL layer 1 error counts. For ANSI U-cards, the counts are upstream and downstream block errors (BE), errored seconds (ES) and severe errored seconds (SES). For AMI U-cards, the count is upstream errored seconds.
 - LEVEL2 = Applies to all integrated services digital network (ISDN) protocol channel frame error information.
 - PER = Applies to the protocol error history for an ISDN protocol channel.
- m = ALE report/reset option. Valid value(s):
 - REPT = Retrieve and report the error counts (default).

- RESET = Reset the error counts and clear the PER tables. The current values of the error counts will be output before being cleared.
- SRESET = Silently reset the error counts. Operates exactly like the RESET option except that current values will not be output.
- n = Set of level 1 error counts. This option is valid only on ANSI U-DSL. Valid value(s):
- ALL = All of above counts.
- CU = When the CU option is not followed by a specific channel unit number (that is, CU only), then counts for all populated channel units will be printed. Due to the potential time required to collect data for a CU, this option is only allowed for single port ALE requests.
- CUn = Current and previous interval counts stored on a specified BRITE CU ('n' is 1 through 6).
- CURR = Current hour, interval, and day counts (default).
- DAY = Current and previous day counts (except BE).
- HIST = Recent interval history (ES only).
- HOURL = Current and previous hour counts.
- INT = Current and previous interval counts.
- LCCU = Current and previous hour counts, and current and previous interval counts on all BRITE CUs.
- PREV = Previous hour, interval, and day counts.
- o = If 'k' = CRC, test direction.
- The IDCUC CRC test is run in one direction at a time and this direction may be a specified value to the CRC parameter. Valid value(s):
- DWN = Perform a CRC test using the downstream registers of the LT on the U-DSL, reporting only downstream PM results on output.
- UP = Perform a CRC test using the upstream registers of the LT on the U-DSL, reporting only upstream PM results on output.
- The test direction values are not used by RISLU/ISLU DSLs, as these DSLs always run the CRC test in both directions.

4. SYSTEM RESPONSE

- NG = No good. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.
- OK = Good. The remove of the port from service was performed.
- PF = Printout follows.

5. REFERENCES

Input Message(s):
CONN:WSIC
CONN:WSLINE
CONN:WSTRK
DGN:AIULC
DGN:ISLULC
DGN:ISLULCKT
DGN:TEN
EXC:ALE
EXC:LIT
RLS:WSTST
RMV:LINE
RMV:TRK

RST:LINE
RST:TRK
SET:WSPOS
TRC:UTIL
TST:DSL
TST:TRK

Output Message(s):

DGN:AIULC
DGN:ISLULC
DGN:ISLULCKT
DGN:TEN
EXC:ALE
EXC:LIT
RST:LINE
RST:TRK
TST:TRK

Output Appendix(es):

APP:TLWS

Other Manual(s):

235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

14.1 (AUTO TRUNK TEST)

ID TST:WSCPE
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests a test of customer premises equipment (CPE) connected to a digital subscriber line (DSL) at the trunk and line work station (TLWS) test position (TP) number that was seized using a TLWS seize line input message. A TP must be selected before requesting the test. Refer to the SET:WSPOS input message.

Note: This input message is the message interface between the line/trunk testing software and the TLWS numeric menu options (refer to the MCC Display Page 160). The test results from this input message are displayed on a TLWS screen and are not printed on the ROP. Direct input of this message is not allowed. Instead, use the TST:DSL input message for testing.

The RMV and RST tests can be run on custom multi-point (MP) and standard interface CPEs. (However, FIP CPE on custom MP interface must be able to respond to a MIM end-point service message which notifies the CPE of a service state change).

2. FORMAT

```
[1] TST:WSCPE,TP=a,TEST={CPE|PRINT|REFRESH|USPID};
[2] TST:WSCPE,TP=a,TEST={RMV|RST},CPE=b;
[3] TST:WSCPE,TP=a,TEST=LPBK,CPE=b,BLKSZ=c,CHAN=d[,PS];
```

3. EXPLANATION OF MESSAGE

PS = Indicates a loopback test to be run a packet switched channel.

TEST = Type of test request. Valid value(s):

- CPE = Display the CPE information on the TLWS screen.
- LPBK = Interactive digital test with a loopback established at the CPE (valid only for CPE that support testing).
- PRINT = Print the CPE information, along with information about CPE provisioned for service on the DSL, but not currently connected.
- REFRESH = Refresh the TLWS screen display.
- RMV = Remove a CPE from service.
- RST = Restore a CPE to service.
- USPID = Display the user service profile identifier (USPID) on the TLWS screen.

WSCPE = Work station customer premises equipment (CPE).

- a = TLWS TP number.
- b = The CPE number as displayed on the TLWS screen.
- c = Number of bits in the blocks (block size, BLKSZ) to be sent.
- d = Channel of the DSL (B1, B2, or ANY). 'ANY' causes the first valid B-channel available to be used for the test.

4. SYSTEM RESPONSE

Hardware and resource errors that occur after a TLWS message has been accepted are displayed on the TLWS menu screen.

IP = In progress.

NG = No good. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses. If this message is attempted as direct input, the error response "DIRECT INPUT NOT ALLOWED, USE TST:DSL" will be displayed.

RL = Retry later.

5. REFERENCES

Input Message(s):

OP:CPE
RLS:WSTST
RMV:CPE
RST:CPE
SET:WSPOS
TST:DSL

Output Appendix(es):

APP:TLWS

Other Manual(s):

235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

ID TST:WSDGTL
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests digital testing on the port seized at the trunk and line work station (TLWS) test position (TP).

2. FORMAT

TST:WSDGTL,TP=a[,TERM=b][,BLKSZ=d][,CHAN=e][,TESTEQ=f][,PS][,USERDEF]
[,UCL];

3. EXPLANATION OF MESSAGE

CHAN = Channel.

PS = Run a packet type test. This parameter is not necessary when running tests on channels with permanent circuit or packet service, because the test type can be determined internally according to the channel provisioning. However, this parameter must be specified to run a packet test on on-demand packet (ODP) channels (default test type for ODP channels is circuit).

TERM = Termination point.

TESTEQ = Information pertaining to the test equipment being used in the testing.

UCL = Do not interrupt the test when the NT1 goes to test mode. This option applies only on ANSI¹ U-DSL.

USERDEF = Run the digital test using the user-defined defaults. If no defaults have been previously set for the test position, the system defaults are used.

a = TLWS TP number.

b = Termination point for the loopback. Valid value(s):

CUC = Loopback point is a specified basic rate interface transmission extension (BRITE) channel unit (CU). Only valid on U-DSLs. For ANSI U-DSLs, c = 1 through 6. For AMI U-DSLs, c = 1 through 4.

EXT = Loopback is an external connection to the terminal. The digital bit stream is sent out, and it is the terminal's option to send the bits back in the sent format or in an inverted format.

LBK = Loopback test, for a digital trunk, sends the digital bit stream out to the far end office. The far end office sends the bit stream back in the same format. (digital trunks only)

LBKCSU = Loopback test, for a packet-switching digital trunk, sends the digital bit stream out to the channel service unit (CSU). The CSU sends the bit stream back in the same format. Valid for packet switching trunks only.

LBKINV = Loopback test, for a digital trunk, sends the digital bit stream out to the far end office. The far end office sends the bit stream back in the inverted format. (digital trunks only)

LBKOCU = Loopback test, for a packet-switching digital trunk, sends the digital bit stream out to the office channel unit (OCU). The OCU sends the bit stream back in the same format. Valid for packet switching trunks only.

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LBKSH	= Loopback test, for a speech handler trunk, sends the digital bit stream in to the speech handler (SH). The SH sends the bit stream back in the same format. Valid for speech handler trunks only.								
LT	= Loopback point is a physical loopback in the line card. Default value for the digital subscriber line (DSL). (DSL only)								
MANSINK	= Sets a loopback for a loopback test originated by the far end switch. When the far end switch sends a digital bit stream, the 5ESS® switch sends the digital bit stream back in the same format. Note: Block size entered is irrelevant when this termination is used. Valid for packet switching trunks only.								
MANSRCE	= Loopback test, for a packet-switching digital trunk sends the digital bit stream out to the far end switch. The far end switch sends the digital bit stream back in the same format. Note: the far end switch must manually set the loopback prior to running this test. Valid for packet switching trunks only.								
NT1	= Loopback point is a physical loopback at the network termination (NT1). Default value for U-DSL. (U-DSL only)								
PH	= Loopback point is in the protocol handler. (DSL only)								
d	= Number of bits in the blocks to be sent (1 - 64000, Default: 56000).								
e	= Channel of the DSL (valid for DSLs only). Valid value(s): <table><tr><td>ALL</td><td>= Run the test on all the channels of the DSL.</td></tr><tr><td>B1</td><td>= Run the test on the B1-channel.</td></tr><tr><td>B2</td><td>= Run the test on the B2-channel.</td></tr><tr><td>D</td><td>= Run the test on the D-channel.</td></tr></table>	ALL	= Run the test on all the channels of the DSL.	B1	= Run the test on the B1-channel.	B2	= Run the test on the B2-channel.	D	= Run the test on the D-channel.
ALL	= Run the test on all the channels of the DSL.								
B1	= Run the test on the B1-channel.								
B2	= Run the test on the B2-channel.								
D	= Run the test on the D-channel.								
f	= Channel of the DSL for which information pertaining to the test equipment being used in the testing is displayed. Valid value(s): (default). <table><tr><td>B1</td><td>= Display the B1-channel test equipment information.</td></tr><tr><td>B2</td><td>= Display the B2-channel test equipment information.</td></tr><tr><td>D</td><td>= Display the D-channel test equipment information.</td></tr></table>	B1	= Display the B1-channel test equipment information.	B2	= Display the B2-channel test equipment information.	D	= Display the D-channel test equipment information.		
B1	= Display the B1-channel test equipment information.								
B2	= Display the B2-channel test equipment information.								
D	= Display the D-channel test equipment information.								

4. SYSTEM RESPONSE

IP	= In progress.
NG	= No good. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.
RL	= Retry later. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

5. REFERENCES

Input Message(s):
CONN:WSIC
CONN:WSLINE
CONN:WSTRK
SET:WSPPOS
TST:DSL
TST:TRK

Output Message(s):
TST:DSL
TST:TRK

Output Appendix(es):
APP:TLWS

Other Manual(s):

235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):
160 (TRUNK & LINE MAINT)

ID TST:WSMEAS
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests to measure signal characteristics in a transmission test on the line or trunk that was seized at the trunk and line work station (TLWS) test position (TP).

Note: If the TLWS talk and monitor (T&M) phone is not busy, it is automatically brought into the connection. During measurements the phone is in the MONITOR mode.

2. FORMAT

TST:WSMEAS,TP=a[,TEST=b][,ST];

3. EXPLANATION OF MESSAGE

ST = Send tone simultaneous with the measurement. Sending a simultaneous tone is only allowed for the following measurement types: BBAND, L1, L2, L4, NOISE, and NWT. The tone is sent over the port at the frequency and level stored for the test position using the SET:WSFREQ input message.

a = TLWS TP number.

b = Type of measurement. Valid value(s):

BBAND	= Broadband level.
ERL	= Echo-return loss.
L4	= Level at 404 Hz.
L1	= Level at 1004 Hz.
L2	= Level at 2804 Hz.
MEASURE	= Composite measure at BBAND, 404 Hz, 1004 Hz and 2804 Hz with the results being the largest measurement response. This is the default test.
NOISE	= Far-to-near noise level.
NWT	= Far-to-near level at 1004 Hz, -16 db.
SRL	= Singing return loss.
SRLHI	= Singing return loss, high.

4. SYSTEM RESPONSE

IP = In progress.

NG = No good. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

5. REFERENCES

Input Message(s):

CONN:WSIC
CONN:WSLINE
CONN:WSTRK
RLS:WSTST
SET:WSPOS
STP:WSTST

Output Appendix(es):

APP:TLWS

Other Manual(s):

235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

ID TST:WSMET
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests testing the metallic characteristics of the line or trunk attached to a trunk and line work station (TLWS) test position (TP).

Note: If the TLWS talk & monitor (T&M) phone is not busy, it is automatically brought into the connection. During metallic measurements the phone is in the ON HOLD state, so as not to interfere with the measurements.

2. FORMAT

TST:WSMET,TP=a[,TEST=b;][[,testeq=c;][[,offtest=d;]

3. EXPLANATION OF MESSAGE

- a = TLWS TP number.
- b = Type of metallic measurement test. Valid value(s):
- ALL = Perform voltage, resistance, and capacitance tests.
 - C = Perform capacitance test.
 - CC = Perform collect coin test (DCTU on coin only).
 - DC = Perform detect coin test (DCTU on coin only).
 - DIST = Perform distance to open test (line only).
 - HT = Perform home totalizer test (DCTU on coin only).
 - OFKT = Perform SLIM Off-hook test (SLIM on analog line only).
 - PGTC = Add the pair gain test controller into the metallic connection for testing universal-SLC® (U-SLC) ports (DCTU only).
 - R = Perform resistance test.
 - RC = Perform return coin test (DCTU on coin only).
 - RINGER = Perform ringer count test (DCTU on line only).
 - SHORT = Perform monitor for short test.
 - V = Perform voltage test.
- c = Type of metallic test equipment. Valid value(s):
- DCTU = Directly connected test unit.
 - SLIM = Subscriber line and measurement.
- d = Type of SLIM off-hook test. Valid value(s):
- DIALPULSE = Perform dial speed abd pulse test.
 - FLASH = Perform duration test hook flash.
 - KEYTONE = Perform keytone test.
 - LOOPRES = Perform offhook loop resistance test.
 - RING = Perform ring line test (default).

4. SYSTEM RESPONSE

- IP = In progress.
- NG = No good. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

5. REFERENCES

Input Message(s):

CONN:WSIC
CONN:WSLINE
CONN:WSTRK
RLS:WSTST
SET:WSPOS
TST:WSMNTR

Output Appendix(es):

APP:TLWS

Other Manual(s):

235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

ID TST:WSMNTR
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests MONITOR access to either a busy or idle port at the trunk and line work station (TLWS) test position (TP), depending on the mode option chosen in the input message.

The TLWS talk & monitor (T&M) phone must be available for use with this connection. It is in the MONITOR state for the connection.

2. FORMAT

TST:WSMNTR,TP=a[,MODE=b];

3. EXPLANATION OF MESSAGE

a = TLWS TP number.

b = Mode for the MONITOR function. Valid value(s):

BUSY = The user can monitor audio only on a busy line/trunk.

IDLE = The user can monitor audio on either a busy or idle line/trunk. In addition to monitoring, this mode will display the dialed digits and signals/tones sent or received by the switch.

4. SYSTEM RESPONSE

IP = In progress.

NG = No good. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

5. REFERENCES

Input Message(s):

CONN:WSLINE

CONN:WSTRK

RLS:WSTST

SET:WSPOS

Output Appendix(es):

APP:TLWS

Other Manual(s):

235-100-125 *System Description*

235-105-110 *System Maintenance Requirements and Tools*

235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

ID TST:WSEND
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests that a tone be sent over, or a termination be applied to, the port currently seized at the trunk and line station (TLWS) test position (TP).

Note: If the TLWS talk and monitor (T&M) phone is not busy, it is automatically brought into the connection. During sending of tone, it is in the MONITOR mode.

2. FORMAT

[1] TST:WSEND,TP=a,SEND[,FREQ=b][,LVP=c[,LVN=d];
[2] TST:WSEND,TP=a[,TEST=e];

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

a = TLWS TP number.

b = Frequency in hertz (0 - 4000). If not specified, the user defined value set with the SET:WSFREQ input request will be used.

c = Level in positive tenths of db of the tone (0-30) (for example, +2.4 dbm is specified as 24). If not specified, the user defined value set with the SET:WSFREQ input request is used.

d = Level in negative tenths of a db of the tone (0 - 480) (for example, -24 dbm is specified as 240). If not specified, the user defined value set with the SET:WSFREQ input request is used.

e = Test to be run.

OPEN = Open termination: applies only to analog trunks; supervision is not monitored.

QUIET = Quiet termination: applies to both lines and trunks; supervision is monitored during the quiet interval.

SEND = Send tone at frequency and level stored for the TLWS TP. The SET:WSFREQ input request is used to store the frequency and level. This is the default test.

4. SYSTEM RESPONSE

IP = In progress.

NG = No good. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

5. REFERENCES

Input Message(s):
CONN:WSIC
CONN:WSLINE
CONN:WSTRK
RLS:WSTST
SET:WSFREQ

SET:WSPOS
TST:WSMNTR

Output Appendix(es):
APP:TLWS

Other Manual(s):

235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):
160 (TRUNK & LINE MAINT)

ID TST:WSSUPV-A
RELEASE 5E15 - 5E16(1)
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests that supervision characteristics of the line or trunk be tested at the trunk and line work station (TLWS) test position (TP) number that was seized using a TLWS seize line, trunk, or incoming call input message. A TP must be selected before requesting the test. Refer to the SET:WSPOS input message.

Format 1 is used to initiate a specific supervision test on a line or trunk [except for recorded announcement function (RAF) or service announcement system (SAS)]. Format 2 is used to play a single phrase or all phrases on a recorded announcement port. Format 2 can also be used to play a range of phrases (playing a range of phrases applies only to a SAS). Format 3 is used to play a complete announcement or execute a dial-through announcement test on a RAF or SAS port.

2. FORMAT

[1] TST:WSSUPV,TP=a,TEST=b;
[2] TST:WSSUPV,TP=a,TEST=PHRASE,PHRASE=c[&&h][,TIME=i];
[3] TST:WSSUPV,TP=a,TEST={ANN|DTA},APPL=d,HANN=e,TANN=f,INFL=g,ANNCSET=j[,TIME=i];

3. EXPLANATION OF MESSAGE

ANN = Play an announcement [digital service unit 2 - recorded announcement function (DSU2-RAF) or SAS port only].

DTA = Dial-through announcement test (DSU2-RAF or SAS port only).

PHRASE = Play phrase(s) (DSU2-RAF or SAS port only).

a = TLWS TP number.

b = Test options. Valid value(s):

CCOR = Coin collect and operator released signal test (incoming operator trunk only).

CNCL = Coin collect signal test (incoming operator trunk only).

CNDT = Coin detect (line only).

CNRT = Coin return signal test (incoming operator trunk only).

DSEC = Disable echo canceler (trunk only).

ENEC = Enable echo canceler (trunk only).

HMT0 = Home totalizer (line only).

MSMTCH = Network termination 1 (NT1) mismatch test (U-card only).

OFF = Trunk off-hook (trunk only).

ON = Trunk on-hook (non-common channel signaling [CCS] trunk only). For CCS7 trunks a release (REL) message is sent to the far end.

OPAT = Operator attached signal test (incoming operator trunk only).

OPRL = Operator released signal test (incoming operator trunk only).

PPTONE = Defense switch network (DSN) preemption tone (DSN office only).

QWINK = Quick wink test (trunk only).

RING = Ring line (line only).

RNGBK = Ringback test (trunk only).

ROH = Receiver off-hook (line only).

SHLB = Set up a loopback at the speech handler [speech handler trunk (SHT) only].

SHUNLB = Tear down a loopback at the speech handler (SHT only).

WINK = Wink test (trunk only).

- c = Phrase number (0-65535) for RAF, 0 plays all phrases. For SAS this is the low range (0-65530).
- d = Announcement application (APPL). Valid value(s):
- 2LVL = LASS 2-level activation.
 - ACSR = Automatic customer station rearrangement.
 - L2 = Non-English Language 2 for OSPS.
 - L3 = Non-English Language 3 for OSPS.
 - L4 = Non-English Language 4 for OSPS.
 - L5 = Non-English Language 5 for OSPS.
 - L6 = Non-English Language 6 for OSPS.
 - L7 = Non-English Language 7 for OSPS.
 - LASS = LASS screen list editing.
 - OSPSDA = Operator Services Position System (OSPS) directory assistance.
 - OSPSTA = OSPS toll and assistance.
 - PVN = Private virtual network custom announcements.
 - RAS = Remote access service.
- e = Header announcement (HANN) ID (0-65535).
- f = Trailer announcement (TANN) ID (0-65535).
- g = Inflection (INFL) ID (0-255).
- h = Phrase number high range (SAS only) (1-65530) .
- i = Time to wait for announcement or phrase playback (SAS only) (15-60) minutes.
- j = Alternate Announcement Set (ANNCSET) ID (0-1022).

4. SYSTEM RESPONSE

- NG = No good. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.
- OK = Good.

5. REFERENCES

Input Message(s):

CONN:WSIC
CONN:WSLINE
CONN:WSTRK
RLS:WSTST
SET:WSPOS
TST:WSMNTR

Output Appendix(es):

APP:TLWS

Other Manual(s):

235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

ID TST:WSSUPV-B
RELEASE 5E16(2) and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests that supervision characteristics of the line, trunk or signaling data link (SDL) be tested at the trunk and line work station (TLWS) test position (TP) number that was seized using a TLWS seize line, trunk, SDL port, or incoming call input message. A TP must be selected before requesting the test. Refer to the SET:WSPOS input message.

Format 1 is used to initiate a specific supervision test on a line, trunk or SDL port [except for recorded announcement function (RAF) or service announcement system (SAS)]. When a loopback test is set on an SDL port, the CCS link associated with the SDL port should be deactivated first and the status of the SDL port should be in service (IS).

The DUR in Format 1 is only valid when to set the loopback for an SDL port. When the duration is timed out or there is an interruption after the loopback is set, the loopback is cleared automatically for that SDL port. Also the testing resource associated with TLWS identifier (ID) number in 161,<TP>,<ID> poke is not applicable to set the loopback on an SDL port even if an ID is entered.

Format 2 is used to play a single phrase or all phrases on a recorded announcement port. Format 2 can also be used to play a range of phrases (playing a range of phrases applies only to a SAS).

Format 3 is used to play a complete announcement or execute a dial-through announcement test on a RAF or SAS port.

2. FORMAT

[1]	TST:WSSUPV,TP=a,TEST=b[,DUR=k];
[2]	TST:WSSUPV,TP=a,TEST=PHRASE,PHRASE=c[&&h][,TIME=i];
[3]	TST:WSSUPV,TP=a,TEST={ANN DTA},APPL=d,HANN=e,TANN=f.,INFL=g,ANNCSET=j[,TIME=i];

3. EXPLANATION OF MESSAGE

ANN	= Play an announcement [digital service unit 2 - recorded announcement function (DSU2-RAF) or SAS port only].
DTA	= Dial-through announcement test (DSU2-RAF or SAS port only).
PHRASE	= Play phrase(s) (DSU2-RAF or SAS port only).
a	= TLWS TP number.
b	= Test options. Valid value(s):
CCOR	= Coin collect and operator released signal test (incoming operator trunk only).
CLRLBK	= Tear down a loopback at the speech handler trunk (SHT) or SDL port only.
CNCL	= Coin collect signal test (incoming operator trunk only).
CNDT	= Coin detect (line only).
CNRT	= Coin return signal test (incoming operator trunk only).
DSEC	= Disable echo canceler (trunk only).
ENEC	= Enable echo canceler (trunk only).
HMT0	= Home totalizer (line only).
MSMTCH	= Network termination 1 (NT1) mismatch test (U-card only).

- OFF = Trunk off-hook (trunk only).
- ON = Trunk on-hook [non-common channel signaling (CCS) trunk only]. For CCS7 trunks a release message is sent to the far end.
- OPAT = Operator attached signal test (incoming operator trunk only).
- OPRL = Operator released signal test (incoming operator trunk only).
- PPTONE = Defense switch network (DSN) preemption tone (DSN office only).
- QWINK = Quick wink test (trunk only).
- RING = Ring line (line only).
- RNGBK = Ringback test (trunk only).
- ROH = Receiver off-hook (line only).
- SETLBK = Set up a loopback at the speech handler SHT trunk or SDL port only.
- WINK = Wink test (trunk only).
- c = Phrase number (0-65535) for RAF, 0 plays all phrases. For SAS this is the low range (0-65530).
- d = Announcement application (APPL). Valid value(s):
 - 2LVL = LASS 2-level activation.
 - ACSR = Automatic customer station rearrangement.
 - L2 = Non-English language 2 for OSPS.
 - L3 = Non-English language 3 for OSPS.
 - L4 = Non-English language 4 for OSPS.
 - L5 = Non-English language 5 for OSPS.
 - L6 = Non-English language 6 for OSPS.
 - L7 = Non-English language 7 for OSPS.
 - LASS = LASS screen list editing.
 - OSPSDA = Operator Services Position System (OSPS) directory assistance.
 - OSPSTA = OSPS toll and assistance.
 - PVN = Private virtual network custom announcements.
 - RAS = Remote access service.
- e = Header announcement (HANN) ID (0-65535).
- f = Trailer announcement (TANN) ID (0-65535).
- g = Inflection (INFL) ID (0-255).
- h = Phrase number high range (SAS only) (1-65530) .
- i = Time to wait for announcement or phrase playback (SAS only) (15-60) minutes.
- j = Alternate announcement set (ANNCSET) ID (0-1022).
- k = Duration to set the loopback for a SDL port in seconds (1-3600). Default is 30 seconds.

4. SYSTEM RESPONSE

- NG = No good. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.
- OK = Good.

5. REFERENCES

Input Message(s):
CONN:WSIC
CONN:WSLINE
CONN:WSTRK
RLS:WSTST
SET:WSPOS
TST:WSMNTR

Output Appendix(es):
APP:TLWS

Other Manual(s):

235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 TRUNK & LINE MAINT

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:APPLY-BYTER-A
RELEASE 5E16(2) - 5E17(1)
COMMAND GROUP SFTMG7
APPLICATION 5,3B

1. PURPOSE

Requests application of a byte replacement update associated with a software update. BYTER writes into sequential memory locations in processes.

Format 1 is used for administrative module (AM) updates only. Format 2 is used for switching module (SM), communications module processor (CMP) or peripheral updates. Format 3 is used for updates that require the existence of the pathlist file to determine where the update is to be applied.

Warning: *This message overwrites data in the memory of the switch. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.*

2. FORMAT

```
[1]   UPD:APPLY:BYTER,UPNM="a",FN="b",TARGET=AM,ADDR=d,DATA=e,. . .
      . . .OLDDATA=f[,UCL][,WTIME="h"];
```

```
[2]   UPD:APPLY:BYTER,UPNM="a",FN="b",TARGET=c,PACKINFO="g",. . .
      . . .[,UCL][,DF="j"];
```

```
[3]   UPD:APPLY:BYTER,UPNM="a",FN="b",TARGET="AMPATH",PACKINFO="g". . .
      . . .DF="j"[,UCL];
```

3. EXPLANATION OF MESSAGE

UCL = Do not enforce order on the software update name 'a'.

a = Software update. This can be specified as BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn where BW, TMP, and CFT identify the category of software update, yy is the last two digits of the year issued, and nnnn is the sequence number identifying the software update. Double quotes (" ") are required.

b = The name of the file to be changed, specified by the pathname 'b'. Refer to the Routine Operations and Maintenance manual for definitions of file and pathname.

c = The processor to receive the update. Valid value(s):

AMPATH	= Office specific update in the AM.
CMP	= Communication module processor.
DDMA	= Diagnostic direct memory access
DNUSCC	= Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
DNUSTMX	= Transmission multiplexer.
DSC3	= Digital service circuit - model 3.
DSP13K	= 8K digital signal processor for code division multiple access (CDMA) protocol handler for voice.
DSP8K	= 8K digital signal processor for CDMA protocol handler for voice.
DSPEVRC	= EVRC digital signal processor for CDMA protocol handler for voice.
GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP22	= PH22 common input/output processor (IOP) image.

IP3S	= PH3 CCS IOP image.
IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MH32	= Switching module processor message handler 32 (MH32) image.
MHEIB	= Switching module processor message handler EIB (MHEIB) image.
MHLB	= Switching module processor MH little boot image.
MHPPC	= Switching module processor message handler <i>PowerPC</i> ¹ (MHPPC) image.
MHPPCLB	= Switching module processor MHPPC little boot image.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit (OIU) - 24 channels.
OIUIP	= Optical interface unit - internet protocol (IP).
PH2A	= Protocol handler 2 (PH2) ACCESS application processor (AP) image.
PH2G	= PH2 GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SM2KFX	= SM-2000 <i>PowerPC</i> upgrade.
V3DACP	= ACELP digital signal processor (DSP) for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEV1R1	= EVRC1 DSP, for CDMA for PHV4.
V4DEV1R2	= EVRC2 DSP, for CDMA for PHV4.
V4DEV1R3	= EVRC3 DSP, for CDMA for PHV4.
V4DVSP	= VSELP DSP, for TDMA for PHV4.
V4DISL	= ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K	= 13K DSP, for CDMA for PHV5.
V5D8K	= 8K DSP, for CDMA for PHV5.
V5DACP	= ACELP DSP, for TDMA for PHV5.

1. Registered trademark of International Business Machines Corp.

- V5DEV1 = EVRC1 DSP, for CDMA for PHV5.
V5DEV2 = EVRC2 DSP, for CDMA for PHV5.
V5DEV3 = EVRC3 DSP, for CDMA for PHV5.
V5DVSP = VSELP DSP, for TDMA PHV5.
V5DISL = ISLP DSP, for IS41 TDMA PHV5 data circuit.
- d = The starting address (in decimal) of the overwrite, which must be on a word boundary.
- e = The overwrite that will be placed at starting address 'd'. Each overwrite must be four bytes long. A list of up to 32 overwrites may be entered. The order they are entered is the order in which they will be written into the file, 'b'.
- f = Expected contents of the locations to be overwritten. Old contents must be given for every overwrite entered. The order they are entered will be the order they are compared to the contents in the file 'b', starting at address 'd'.
- g = Name of the PACKINFO file. Double quotes (" ") are required.
- h = The number of seconds ("wait time", WTIME), for the automatic backout wait (0-3600 seconds, default: 300). This parameter is only applicable when 'b' is non-killable.
- j = The pathname of the dependent file to be changed. Refer to the Routine Operations and Maintenance manual for definitions of file and pathname. Double quotes (" ") are required.

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted. Followed by the UPD:APPLY output message.

5. REFERENCES

Input Message(s):

UPD:BKOUT
UPD:DISPLAY
UPD:OFC
UPD:PMPPERF

Output Message(s):

UPD:APPLY
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1960 INSTALL BWM

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:APPLY-BYTER-B
RELEASE 5E16(1) only
COMMAND GROUP SFTMG7
APPLICATION 5,3B

1. PURPOSE

Requests application of a byte replacement update associated with a software update. BYTER writes into sequential memory locations in processes.

Format 1 is used for administrative module (AM) updates only. Format 2 is used for switching module (SM), communications module processor (CMP) or peripheral updates. Format 3 is used for updates that require the existence of the pathlist file to determine where the update is to be applied.

Warning: *This message overwrites data in the memory of the switch. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.*

2. FORMAT

```
[1]   UPD:APPLY:BYTER,UPNM="a",FN="b",TARGET=AM,ADDR=d,DATA=e,. . .
      . . .OLDDATA=f[,UCL][,WTIME="h"];
```

```
[2]   UPD:APPLY:BYTER,UPNM="a",FN="b",TARGET=c,PACKINFO="g",. . .
      . . .[,UCL][,DF="j"];
```

```
[3]   UPD:APPLY:BYTER,UPNM="a",FN="b",TARGET="AMPATH",PACKINFO="g". . .
      . . .DF="j"[,UCL];
```

3. EXPLANATION OF MESSAGE

UCL = Do not enforce order on the software update name 'a'.

a = Software update. This can be specified as BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn where BW, TMP, and CFT identify the category of software update, yy is the last two digits of the year issued, and nnnn is the sequence number identifying the software update. Double quotes (" ") are required.

b = The name of the file to be changed, specified by the pathname 'b'. Refer to the Routine Operations and Maintenance manual for definitions of file and pathname.

c = The processor to receive the update. Valid value(s):

AMPATH	= Office specific update in the AM.
CMP	= Communication module processor.
DDMA	= Diagnostic direct memory access
DNUSCC	= Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
DNUSTMX	= Transmission multiplexer.
DSC3	= Digital service circuit - model 3.
DSP13K	= 8K digital signal processor for code division multiple access (CDMA) protocol handler for voice.
DSP8K	= 8K digital signal processor for CDMA protocol handler for voice.
DSPEVRC	= EVRC digital signal processor for CDMA protocol handler for voice.
GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP22	= PH22 common input/output processor (IOP) image.

IP3S	= PH3 CCS IOP image.
IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MH32	= Switching module processor message handler 32 (MH32) image.
MHEIB	= Switching module processor message handler EIB (MHEIB) image.
MHLB	= Switching module processor MH little boot image.
MHPPC	= Switching module processor message handler power PC (MHPPC) image.
MHPPCLB	= Switching module processor MHPPC little boot image.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit - 24 channels.
PH2A	= Protocol handler 2 (PH2) ACCESS application processor (AP) image.
PH2G	= PH2 GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
V3DACP	= ACELP digital signal processor (DSP) for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEV1R1	= EVRC1 DSP, for CDMA for PHV4.
V4DEV1R2	= EVRC2 DSP, for CDMA for PHV4.
V4DEV1R3	= EVRC3 DSP, for CDMA for PHV4.
V4DVSP	= VSELP DSP, for TDMA for PHV4.
V4DISL	= ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K	= 13K DSP, for CDMA for PHV5.
V5D8K	= 8K DSP, for CDMA for PHV5.
V5DACP	= ACELP DSP, for TDMA for PHV5.
V5DEV1R1	= EVRC1 DSP, for CDMA for PHV5.
V5DEV1R2	= EVRC2 DSP, for CDMA for PHV5.
V5DEV1R3	= EVRC3 DSP, for CDMA for PHV5.
V5DVSP	= VSELP DSP, for TDMA PHV5.
V5DISL	= ISLP DSP, for IS41 TDMA PHV5 data circuit.

- d = The starting address (in decimal) of the overwrite, which must be on a word boundary.
- e = The overwrite that will be placed at starting address 'd'. Each overwrite must be four bytes long. A list of up to 32 overwrites may be entered. The order they are entered is the order in which they will be written into the file, 'b'.
- f = Expected contents of the locations to be overwritten. Old contents must be given for every overwrite entered. The order they are entered will be the order they are compared to the contents in the file 'b', starting at address 'd'.
- g = Name of the PACKINFO file. Double quotes (" ") are required.
- h = The number of seconds ("wait time", WTIME), for the automatic backout wait (0-3600 seconds, default: 300). This parameter is only applicable when 'b' is non-killable.
- j = The pathname of the dependent file to be changed. Refer to the Routine Operations and Maintenance manual for definitions of file and pathname. Double quotes (" ") are required.

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted. Followed by the UPD:APPLY output message.

5. REFERENCES

Input Message(s):

UPD:BKOUT
UPD:DISPLAY
UPD:OFC
UPD:PMPPERF

Output Message(s):

UPD:APPLY
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1960 INSTALL BWM

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:APPLY-BYTER-C
RELEASE 5E16(2) - 5E17(1)
COMMAND GROUP SFTMG7
APPLICATION 5,3B

1. PURPOSE

Requests application of a byte replacement update associated with a software update. BYTER writes into sequential memory locations in processes.

Format 1 is used for administrative module (AM) updates only. Format 2 is used for switching module (SM), communications module processor (CMP) or peripheral updates. Format 3 is used for updates that require the existence of the pathlist file to determine where the update is to be applied.

Warning: *This message overwrites data in the memory of the switch. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.*

2. FORMAT

```
[1]   UPD:APPLY:BYTER,UPNM="a",FN="b",TARGET=AM,ADDR=d,DATA=e,. . .
      . . .OLDDATA=f[,UCL][,WTIME="h"];
```

```
[2]   UPD:APPLY:BYTER,UPNM="a",FN="b",TARGET=c,PACKINFO="g",. . .
      . . .[,UCL][,DF="j"];
```

```
[3]   UPD:APPLY:BYTER,UPNM="a",FN="b",TARGET="AMPATH",PACKINFO="g". . .
      . . .DF="j"[,UCL];
```

3. EXPLANATION OF MESSAGE

UCL = Do not enforce order on the software update name 'a'.

a = Software update. This can be specified as BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn where BW, TMP, and CFT identify the category of software update, yy is the last two digits of the year issued, and nnnn is the sequence number identifying the software update. Double quotes (" ") are required.

b = The name of the file to be changed, specified by the pathname 'b'. Refer to the Routine Operations and Maintenance manual for definitions of file and pathname.

c = The processor to receive the update. Valid value(s):

AMPATH	= Office specific update in the AM.
CMP	= Communication module processor.
DDMA	= Diagnostic direct memory access
DNUSCC	= Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
DNUSTMX	= Transmission multiplexer.
DSC3	= Digital service circuit - model 3.
DSP13K	= 8K digital signal processor for code division multiple access (CDMA) protocol handler for voice.
DSP8K	= 8K digital signal processor for CDMA protocol handler for voice.
DSPEVRC	= EVRC digital signal processor for CDMA protocol handler for voice.
GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP22	= PH22 common input/output processor (IOP) image.

IP3S	= PH3 CCS IOP image.
IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MH32	= Switching module processor message handler 32 (MH32) image.
MHEIB	= Switching module processor message handler EIB (MHEIB) image.
MHLB	= Switching module processor MH little boot image.
MHPPC	= Switching module processor message handler <i>PowerPC</i> ¹ (MHPPC) image.
MHPPCLB	= Switching module processor MHPPC little boot image.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit (OIU) - 24 channels.
OIUIP	= Optical interface unit - internet protocol (IP).
PH2A	= Protocol handler 2 (PH2) ACCESS application processor (AP) image.
PH2G	= PH2 GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SM2KFX	= SM-2000 <i>PowerPC</i> upgrade.
V3DACP	= ACELP digital signal processor (DSP) for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEV1R1	= EVRC1 DSP, for CDMA for PHV4.
V4DEV1R2	= EVRC2 DSP, for CDMA for PHV4.
V4DEV1R3	= EVRC3 DSP, for CDMA for PHV4.
V4DVSP	= VSELP DSP, for TDMA for PHV4.
V4DISL	= ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K	= 13K DSP, for CDMA for PHV5.
V5D8K	= 8K DSP, for CDMA for PHV5.
V5DACP	= ACELP DSP, for TDMA for PHV5.

1. Registered trademark of International Business Machines Corp.

- V5DEV1 = EVRC1 DSP, for CDMA for PHV5.
V5DEV2 = EVRC2 DSP, for CDMA for PHV5.
V5DEV3 = EVRC3 DSP, for CDMA for PHV5.
V5DVSP = VSELP DSP, for TDMA PHV5.
V5DISL = ISLP DSP, for IS41 TDMA PHV5 data circuit.
- d = The starting address (in decimal) of the overwrite, which must be on a word boundary.
- e = The overwrite that will be placed at starting address 'd'. Each overwrite must be four bytes long. A list of up to 32 overwrites may be entered. The order they are entered is the order in which they will be written into the file, 'b'.
- f = Expected contents of the locations to be overwritten. Old contents must be given for every overwrite entered. The order they are entered will be the order they are compared to the contents in the file 'b', starting at address 'd'.
- g = Name of the PACKINFO file. Double quotes (" ") are required.
- h = The number of seconds ("wait time", WTIME), for the automatic backout wait (0-3600 seconds, default: 300). This parameter is only applicable when 'b' is non-killable.
- j = The pathname of the dependent file to be changed. Refer to the Routine Operations and Maintenance manual for definitions of file and pathname. Double quotes (" ") are required.

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted. Followed by the UPD:APPLY output message.

5. REFERENCES

Input Message(s):

UPD:BKOUT
UPD:DISPLAY
UPD:OFC
UPD:PMPPERF

Output Message(s):

UPD:APPLY
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1960 INSTALL BWM

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:APPLY-BYTER-D
RELEASE 5E18(1) - 5E19(1)
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests application of a byte replacement update associated with a software update. BYTER writes into sequential memory locations in processes.

Format 1 is used for administrative module (AM) updates only. Format 2 is used for switching module (SM), communications module processor (CMP) or peripheral updates. Format 3 is used for updates that require the existence of the pathlist file to determine where the update is to be applied.

Warning: *This message overwrites data in the memory of the switch. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.*

2. FORMAT

```
[1]   UPD:APPLY:BYTER,UPNM="a",FN="b",TARGET=AM,ADDR=d,DATA=e,. . .
      . . .OLDDATA=f[,UCL][,WTIME="h"];
```

```
[2]   UPD:APPLY:BYTER,UPNM="a",FN="b",TARGET=c,PACKINFO="g",. . .
      . . .[,UCL][,DF="j"];
```

```
[3]   UPD:APPLY:BYTER,UPNM="a",FN="b",TARGET="AMPATH",PACKINFO="g". . .
      . . .DF="j"[,UCL];
```

3. EXPLANATION OF MESSAGE

UCL = Do not enforce order on the software update name 'a'.

a = Software update, specified as BWMrr-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn. Valid value(s):

 BWM = Indicates an off-site originated update.

 CFT = Indicates an on-site originated update.

 TMP = Indicates an off-site originated update.

 nnnn = The sequence number identifying the software update.

 rr = The release number [for example, 18 for 5E18(1)].

 yy = The last two digits of the year issued,

Note: Double quotes (" ") are required.

b = The name of the file to be changed, specified by the pathname 'b'. Refer to the Routine Operations and Maintenance manual for definitions of file and pathname.

c = The processor to receive the update. Valid value(s):

 AMPATH = Office specific update in the AM.

 CMP = Communication module processor.

 DDMA = Diagnostic direct memory access

 DNUSCC = Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.

 DNUSTMX = Transmission multiplexer.

 DSC3 = Digital service circuit - model 3.

 DSP13K = 8K digital signal processor for code division multiple access (CDMA) protocol handler for voice.

 DSP8K = 8K digital signal processor for CDMA protocol handler for voice.

 DSPEVRC = EVRC digital signal processor for CDMA protocol handler for voice.

 GDSF = Global digital services function - model 3.

HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP22	= PH22 common input/output processor (IOP) image.
IP3S	= PH3 CCS IOP image.
IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MH32	= Switching module processor message handler 32 (MH32) image.
MHEIB	= Switching module processor message handler EIB (MHEIB) image.
MHLB	= Switching module processor MH little boot image.
MHPPC	= Switching module processor message handler <i>PowerPC</i> ¹ (MHPPC) image.
MHPPCLB	= Switching module processor MHPPC little boot image.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit (OIU) - 24 channels.
OIUIP	= Optical interface unit - internet protocol (IP).
PH2A	= Protocol handler 2 (PH2) ACCESS application processor (AP) image.
PH2G	= PH2 GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
PHV6C	= PHV6 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SM2KFX	= SM-2000 <i>PowerPC</i> upgrade.
V3DACP	= ACELP digital signal processor (DSP) for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEVR1	= EVRC1 DSP, for CDMA for PHV4.

1. Registered trademark of International Business Machines Corp.

V4DEVR2 = EVRC2 DSP, for CDMA for PHV4.
V4DEVR3 = EVRC3 DSP, for CDMA for PHV4.
V4DVSP = VSELP DSP, for TDMA for PHV4.
V4DISL = ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K = 13K + EVRC DSP, for CDMA for PHV5.
V5D8K = 8K DSP, for CDMA for PHV5.
V5DEVR1 = EVRC1 DSP, for CDMA for PHV5.
V5DEVR2 = EVRC2 DSP, for CDMA for PHV5.
V5DEVR3 = EVRC3 DSP, for CDMA for PHV5.
V5DVSP = VSELP DSP, for TDMA PHV5.
V5DISL = ISLP DSP, for IS41 TDMA PHV5 data circuit.

- d = The starting address (in decimal) of the overwrite, which must be on a word boundary.
- e = The overwrite that will be placed at starting address 'd'. Each overwrite must be four bytes long. A list of up to 32 overwrites may be entered. The order they are entered is the order in which they will be written into the file, 'b'.
- f = Expected contents of the locations to be overwritten. Old contents must be given for every overwrite entered. The order they are entered will be the order they are compared to the contents in the file 'b', starting at address 'd'.
- g = Name of the PACKINFO file. Double quotes (" ") are required.
- h = The number of seconds ("wait time", WTIME), for the automatic backout wait (0-3600 seconds, default: 300). This parameter is only applicable when 'b' is non-killable.
- j = The pathname of the dependent file to be changed. Refer to the Routine Operations and Maintenance manual for definitions of file and pathname. Double quotes (" ") are required.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the UPD:APPLY output message.

5. REFERENCES

Input Message(s):

UPD:BKOUT
UPD:DISPLAY
UPD:OFC
UPD:PMPPERF

Output Message(s):

UPD:APPLY
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1960 INSTALL BWM

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:APPLY-BYTER-E
RELEASE 5E20(1) and later
COMMAND GROUP SFTMG
APPLICATION 5,3B

1. PURPOSE

Requests application of a byte replacement update associated with a software update. BYTER writes into sequential memory locations in processes.

Format 1 is used for administrative module (AM) updates only. Format 2 is used for switching module (SM), communication module 3 (CM3) message switch application processor (CM3MSGSP), or peripheral updates. Format 3 is used for updates that require the existence of the pathlist file to determine where the update is to be applied.

Warning: *This message overwrites data in the memory of the switch. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.*

2. FORMAT

```
[1]   UPD:APPLY:BYTER,UPNM="a",FN="b",TARGET=AM,ADDR=d,DATA=e,. . .
      . . .OLDDATA=f[,UCL][,WTIME="h"];
```

```
[2]   UPD:APPLY:BYTER,UPNM="a",FN="b",TARGET=c,PACKINFO="g",. . .
      . . .[,UCL][,DF="j"];
```

```
[3]   UPD:APPLY:BYTER,UPNM="a",FN="b",TARGET="AMPATH",PACKINFO="g". . .
      . . .DF="j"[,UCL];
```

3. EXPLANATION OF MESSAGE

- UCL = Do not enforce order on the software update name 'a'.
- a = Software update, specified as BWMrr-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn. Valid value(s):
- BWM = Indicates an off-site originated update.
 - CFT = Indicates an on-site originated update.
 - TMP = Indicates an off-site originated update.
 - nnnn = The sequence number identifying the software update.
 - rr = The release number [for example, 18 for 5E18(1)].
 - yy = The last two digits of the year issued,
- Note:** Double quotes (" ") are required.
- b = The name of the file to be changed, specified by the pathname 'b'. Refer to the Routine Operations and Maintenance manual for definitions of file and pathname.
- c = The processor to receive the update. Refer to the APP:TARGETS appendix in the Appendixes section of the Input Messages manual.
- d = The starting address (in decimal) of the overwrite, which must be on a word boundary.
- e = The overwrite that will be placed at starting address 'd'. Each overwrite must be four bytes long. A list of up to 32 overwrites may be entered. The order they are entered is the order in which they will be written into the file, 'b'.
- f = Expected contents of the locations to be overwritten. Old contents must be given for every overwrite entered. The order they are entered will be the order they are compared to the contents in the file 'b', starting at address 'd'.
- g = Name of the PACKINFO file. Double quotes (" ") are required.

- h = The number of seconds ("wait time", WTIME), for the automatic backout wait (0-3600 seconds, default: 300). This parameter is only applicable when 'b' is non-killable.
- j = The pathname of the dependent file to be changed. Refer to the Routine Operations and Maintenance manual for definitions of file and pathname. Double quotes (" ") are required.

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted. Followed by the UPD:APPLY output message.

5. REFERENCES

Output Message(s):

UPD:APPLY
UPD:SYSERR
UPD:USRERR

Input Appendix(es):

APP:TARGETS

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1990 INSTALL BWM

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:APPLY-FILER-A
RELEASE 5E15 only
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests application of a file replacement update associated with a software update. FILER replaces an old file with a new one. The new file retains the old file's characteristics (mode, owner, and so forth).

Format 1 is to be used for administrative module (AM) updates only.

Format 2 is to be used for switching module (SM), communications module processor (CMP) or peripheral updates.

Format 4 is to be used for updates that need the existence of the pathlist file to determine where the update will be applied.

Warning: *This message overwrites data in system files. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.*

2. FORMAT

```
[1]   UPD:APPLY:FILER,UPNM="a",FN="b",TARGET=AM,UF="d"[ ,NREL][ ,UCL];
[2]   UPD:APPLY:FILER,UPNM="a",FN="b",TARGET=c,UF="d",DF="e"[ ,UCL];
[3]   UPD:APPLY:FILER,UPNM="a",FN="b",TARGET=g,UF="e",DF="f"[ ,UCL];
[4]   UPD:APPLY:FILER,UPNM="a",FN="b",TARGET="AMPATH",UF="d"[ ,NREL]. . .
      . . .[ ,UCL];
```

3. EXPLANATION OF MESSAGE

NREL = Forces a file replacement of 'b' by 'd' when the file types are different in their magic numbers or when one is in common object file format and the other is not.

UCL = Do not enforce order on the software update name 'a'.

a = Software update. These can be specified as BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn where BWM, TMP, and CFT identify the category of software update, yy is the last two digits of the year issued, and nnnn is the sequence number identifying the software update. Double quotes (") are required.

b = Pathname of the file to be replaced. Refer to the Routine Operations and Maintenance manual for definitions of pathname and file. If the file does not exist it will be created.

c = The processor to receive the update. Valid value(s):

AMPATH	= Office specific update in the AM.
CMP	= Communication module processor.
DDMA	= Diagnostic direct memory access
DNUSCC	= Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
DNUSTMX	= Transmission multiplexer.
DSC3	= Digital service circuit - model 3.
DSP13K	= 8K digital signal processor for CDMA protocol handler for voice.
DSP8K	= 8K digital signal processor for CDMA protocol handler for voice.
DSPEVRC	= EVRC digital signal processor for CDMA protocol handler for voice.
GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.

IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP3S	= Protocol handler 3 CCS OIP image.
IP4F	= Frame relay protocol handler version 4 I/O processor.
IP4I	= PH4I operational input/output processor.
IP4IF	= ISDN Frame Relay protocol handler version 4 I/O processor.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
PH2A	= Protocol handler 2 (PH2) with ACCESS application processor image.
PH2G	= PH2 with GATEWAY application processor image.
PH3C	= Protocol handler 3 (PH3) with COMMON application processor image.
PH3S	= PH3 CCS AP image.
PH4A	= Protocol handler 4 (PH4) access image.
PH4G	= PH4 gateway image.
PH4I	= PH4 with integrated services digital network (ISDN) application processor image.
PHA1A	= Protocol handler for ATM (asynchronous transfer mode).
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice for CDMA (code division multiple access).
PHV3C	= Protocol handler for voice version 3 for CDMA application.
PHV4C	= Protocol handler for voice version 4 for CDMA application.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SMPMH	= Switching module processor message handler (MH) operational image.
SMPMLB	= Switching module processor MH little boot image.
V3DACP	= ACELP digital signal processor, for TDMA protocol handler for voice.
V4D13K	= 13K DSP, for CDMA protocol handler for voice version 4.
V4D8K	= 8K DSP, for CDMA protocol handler for voice version 4.
V4DACP	= ACELP DSP, for TDMA protocol handler for voice version 4.
V4DEV1	= EVRC1 DSP, for CDMA protocol handler for voice version 4.
V4DEV2	= EVRC2 DSP, for CDMA protocol handler for voice version 4.
V4DEV3	= EVRC3 DSP, for CDMA protocol handler for voice version 4.
V4DVSP	= VSELP DSP, for TDMA protocol handler for voice version 4.
V4DISL	= ISLP DSP, for IS41 TDMA protocol handler for data circuit.

d = Name of the source file in the software update package.

e = Pathname of the dependent file to be replaced. Refer to the Operations and Routine Maintenance manual for definitions of pathname and file. If the file does not exist it will be created.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a UPD:APPLY output message.

5. REFERENCES

Input Message(s):
 UPD:BKOUT
 UPD:DISPLAY

UPD:OFC
UPD:PMPPERF

Output Message(s):

UPD:APPLY
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950	PROGRAM UPDATE MAINTENANCE
1960	INSTALL BWM

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:APPLY-FILER-B
RELEASE 5E16(1) only
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests application of a file replacement update associated with a software update. FILER replaces an old file with a new one. The new file retains the old file's characteristics (mode, owner, and so forth).

Format 1 is to be used for administrative module (AM) updates only.

Format 2 is to be used for switching module (SM), communications module processor (CMP) or peripheral updates.

Format 4 is to be used for updates that need the existence of the pathlist file to determine where the update will be applied.

Warning: *This message overwrites data in system files. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.*

2. FORMAT

```
[1]    UPD:APPLY:FILER,UPNM="a",FN="b",TARGET=AM,UF="d"[ ,NREL][ ,UCL];
[2]    _____
        UPD:APPLY:FILER,UPNM="a",FN="b",TARGET=c,UF="d",DF="e"[ ,UCL];
[3]    _____
        UPD:APPLY:FILER,UPNM="a",FN="b",TARGET=g,UF="e",DF="f"[ ,UCL];
[4]    _____
        UPD:APPLY:FILER,UPNM="a",FN="b",TARGET="AMPATH",UF="d"[ ,NREL]. . .
        . . .[ ,UCL];
```

3. EXPLANATION OF MESSAGE

NREL = Forces a file replacement of 'b' by 'd' when the file types are different in their magic numbers or when one is in common object file format and the other is not.

UCL = Do not enforce order on the software update name 'a'.

a = Software update. These can be specified as BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn where BW, TMP, and CFT identify the category of software update, yy is the last two digits of the year issued, and nnnn is the sequence number identifying the software update. Double quotes (" ") are required.

b = Pathname of the file to be replaced. Refer to the Routine Operations and Maintenance manual for definitions of pathname and file. If the file does not exist it will be created.

c = The processor to receive the update. Valid value(s):

- AMPATH = Office specific update in the AM.
- CMP = Communication module processor.
- DDMA = Diagnostic direct memory access
- DNUSCC = Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
- DNUSTMX = Transmission multiplexer.
- DSC3 = Digital service circuit - model 3.
- DSP13K = 8K digital signal processor (DSP) for code division multiple access (CDMA) protocol handler for voice.
- DSP8K = 8K digital signal processor for CDMA protocol handler for voice.
- DSPEVRC = EVRC digital signal processor for CDMA protocol handler for voice.

GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP22	= PH22 common input/output processor (IOP) image.
IP3S	= PH3 CCS IOP image.
IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit - 24 channels.
PH2A	= Protocol handler 2 (PH2) with ACCESS application processor (AP) image.
PH2G	= PH2 with GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 with COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 with ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SMPMH	= Switching module processor message handler (MH) operational image.
SMPMLB	= Switching module processor MH little boot image.
V3DACP	= ACELP DSP for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEVR1	= EVRC1 DSP, for CDMA for PHV4.
V4DEVR2	= EVRC2 DSP, for CDMA for PHV4.
V4DEVR3	= EVRC3 DSP, for CDMA for PHV4.
V4DVSP	= VSELP DSP, for TDMA for PHV4.
V4DISL	= ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K	= 13K DSP, for CDMA for PHV5.
V5D8K	= 8K DSP, for CDMA for PHV5.
V5DACP	= ACELP DSP, for TDMA for PHV5.
V5DEVR1	= EVRC1 DSP, for CDMA for PHV5.

V5DEVR2 = EVRC2 DSP, for CDMA for PHV5.
V5DEVR3 = EVRC3 DSP, for CDMA for PHV5.
V5DVSP = VSELP DSP, for TDMA PHV5.
V5DISL = ISLP DSP, for IS41 TDMA PHV5 data circuit.

- d = Name of the source file in the software update package.
- e = Pathname of the dependent file to be replaced. Refer to the Operations and Routine Maintenance manual for definitions of pathname and file. If the file does not exist it will be created.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a UPD:APPLY output message.

5. REFERENCES

Input Message(s):

UPD:BKOUT
UPD:DISPLAY
UPD:OFC
UPD:PMPPERF

Output Message(s):

UPD:APPLY
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1960 INSTALL BWM

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:APPLY-FILER-C
RELEASE 5E16(2) - 5E17(1)
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests application of a file replacement update associated with a software update. FILER replaces an old file with a new one. The new file retains the old file's characteristics (mode, owner, and so forth).

Format 1 is to be used for administrative module (AM) updates only.

Format 2 is to be used for switching module (SM), communications module processor (CMP) or peripheral updates.

Format 4 is to be used for updates that need the existence of the pathlist file to determine where the update will be applied.

Warning: *This message overwrites data in system files. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.*

2. FORMAT

```
[1]    UPD:APPLY:FILER,UPNM="a",FN="b",TARGET=AM,UF="d"[ ,NREL][ ,UCL];
[2]    _____
        UPD:APPLY:FILER,UPNM="a",FN="b",TARGET=c,UF="d",DF="e"[ ,UCL];
[3]    _____
        UPD:APPLY:FILER,UPNM="a",FN="b",TARGET=g,UF="e",DF="f"[ ,UCL];
[4]    _____
        UPD:APPLY:FILER,UPNM="a",FN="b",TARGET="AMPATH",UF="d"[ ,NREL]. . .
        . . .[ ,UCL];
```

3. EXPLANATION OF MESSAGE

NREL = Forces a file replacement of 'b' by 'd' when the file types are different in their magic numbers or when one is in common object file format and the other is not.

UCL = Do not enforce order on the software update name 'a'.

a = Software update. These can be specified as BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn where BW, TMP, and CFT identify the category of software update, yy is the last two digits of the year issued, and nnnn is the sequence number identifying the software update. Double quotes (" ") are required.

b = Pathname of the file to be replaced. Refer to the Routine Operations and Maintenance manual for definitions of pathname and file. If the file does not exist it will be created.

c = The processor to receive the update. Valid value(s):

- AMPATH = Office specific update in the AM.
- CMP = Communication module processor.
- DDMA = Diagnostic direct memory access
- DNUSCC = Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
- DNUSTMX = Transmission multiplexer.
- DSC3 = Digital service circuit - model 3.
- DSP13K = 8K digital signal processor (DSP) for code division multiple access (CDMA) protocol handler for voice.
- DSP8K = 8K digital signal processor for CDMA protocol handler for voice.
- DSPEVRC = EVRC digital signal processor for CDMA protocol handler for voice.

GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP22	= PH22 common input/output processor (IOP) image.
IP3S	= PH3 CCS IOP image.
IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit (OIU) - 24 channels.
OIUIP	= Optical interface unit - internet protocol (IP).
PH2A	= Protocol handler 2 (PH2) with ACCESS application processor (AP) image.
PH2G	= PH2 with GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 with COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 with ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SM2KFX	= SM-2000 <i>PowerPC</i> ¹ upgrade.
SMPMH	= Switching module processor message handler (MH) operational image.
SMPMLB	= Switching module processor MH little boot image.
V3DACP	= ACELP DSP for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEV1	= EVRC1 DSP, for CDMA for PHV4.
V4DEV2	= EVRC2 DSP, for CDMA for PHV4.
V4DEV3	= EVRC3 DSP, for CDMA for PHV4.
V4DVSP	= VSELP DSP, for TDMA for PHV4.

1. Registered trademark of International Business Machines Corp.

V4DISL = ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K = 13K DSP, for CDMA for PHV5.
V5D8K = 8K DSP, for CDMA for PHV5.
V5DACP = ACELP DSP, for TDMA for PHV5.
V5DEVR1 = EVRC1 DSP, for CDMA for PHV5.
V5DEVR2 = EVRC2 DSP, for CDMA for PHV5.
V5DEVR3 = EVRC3 DSP, for CDMA for PHV5.
V5DVSP = VSELP DSP, for TDMA PHV5.
V5DISL = ISLP DSP, for IS41 TDMA PHV5 data circuit.

- d = Name of the source file in the software update package.
- e = Pathname of the dependent file to be replaced. Refer to the Operations and Routine Maintenance manual for definitions of pathname and file. If the file does not exist it will be created.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a UPD:APPLY output message.

5. REFERENCES

Input Message(s):

UPD:BKOUT
UPD:DISPLAY
UPD:OFC
UPD:PMPPERF

Output Message(s):

UPD:APPLY
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1960 INSTALL BWM

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:APPLY-FILER-D
RELEASE 5E18(1) only
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests application of a file replacement update associated with a software update. FILER replaces an old file with a new one. The new file retains the old file's characteristics (mode, owner, and so forth).

Format 1 is to be used for administrative module (AM) updates only.

Format 2 is to be used for switching module (SM), communications module processor (CMP) or peripheral updates.

Format 4 is to be used for updates that need the existence of the pathlist file to determine where the update will be applied.

Warning: *This message overwrites data in system files. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.*

2. FORMAT

```
[1]      UPD:APPLY:FILER,UPNM="a",FN="b",TARGET=AM,UF="d"[ ,NREL][ ,UCL];
[2]      _____
[2]      UPD:APPLY:FILER,UPNM="a",FN="b",TARGET=c,UF="d",DF="e"[ ,UCL];
[3]      _____
[3]      UPD:APPLY:FILER,UPNM="a",FN="b",TARGET=g,UF="e",DF="f"[ ,UCL];
[4]      _____
[4]      UPD:APPLY:FILER,UPNM="a",FN="b",TARGET="AMPATH",UF="d"[ ,NREL]. . .
          . . .[ ,UCL];
          _____
```

3. EXPLANATION OF MESSAGE

NREL = Forces a file replacement of 'b' by 'd' when the file types are different in their magic numbers or when one is in common object file format and the other is not.

UCL = Do not enforce order on the software update name 'a'.

a = Software update, specified as BWMrr-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn. Valid value(s):

BWM	= Indicates an off-site originated update.
CFT	= Indicates an on-site originated update.
TMP	= Indicates an off-site originated update.
yy	= The last two digits of the year issued,
rr	= The release number [for example, 18 for 5E18(1)].
nnnn	= The sequence number identifying the software update.

Note: Double quotes (" ") are required.

b = Pathname of the file to be replaced. Refer to the Routine Operations and Maintenance manual for definitions of pathname and file. If the file does not exist it will be created.

c = The processor to receive the update. Valid value(s):

AMPATH	= Office specific update in the AM.
CMP	= Communication module processor.
DDMA	= Diagnostic direct memory access
DNUSCC	= Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.

DNUSTMX	= Transmission multiplexer.
DSC3	= Digital service circuit - model 3.
DSP13K	= 8K digital signal processor (DSP) for code division multiple access (CDMA) protocol handler for voice.
DSP8K	= 8K digital signal processor for CDMA protocol handler for voice.
DSPEVRC	= EVRC digital signal processor for CDMA protocol handler for voice.
GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP22	= PH22 common input/output processor (IOP) image.
IP3S	= PH3 CCS IOP image.
IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit (OIU) - 24 channels.
OIUIP	= Optical interface unit - internet protocol (IP).
PH2A	= Protocol handler 2 (PH2) with ACCESS application processor (AP) image.
PH2G	= PH2 with GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 with COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 with ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
PHV6C	= PHV6 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SM2KFX	= SM-2000 PowerPC\rg upgrade.
SMPMH	= Switching module processor message handler (MH) operational image.
SMPMLB	= Switching module processor MH little boot image.
V3DACP	= ACELP DSP for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.

V4DEV1R1 = EVRC1 DSP, for CDMA for PHV4.
V4DEV1R2 = EVRC2 DSP, for CDMA for PHV4.
V4DEV1R3 = EVRC3 DSP, for CDMA for PHV4.
V4DVSP = VSELP DSP, for TDMA for PHV4.
V4DISL = ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K = 13K + EVRC DSP, for CDMA for PHV5.
V5D8K = 8K DSP, for CDMA for PHV5.
V5DEV1R1 = EVRC1 DSP, for CDMA for PHV5.
V5DEV1R2 = EVRC2 DSP, for CDMA for PHV5.
V5DEV1R3 = EVRC3 DSP, for CDMA for PHV5.
V5DVSP = VSELP DSP, for TDMA PHV5.
V5DISL = ISLP DSP, for IS41 TDMA PHV5 data circuit.
V6D13K = 13K + EVRC DSP, for CDMA for PHV6.

- d = Name of the source file in the software update package.
- e = Pathname of the dependent file to be replaced. Refer to the Operations and Routine Maintenance manual for definitions of pathname and file. If the file does not exist it will be created.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a UPD:APPLY output message.

5. REFERENCES

Input Message(s):

UPD:BKOUT
UPD:DISPLAY
UPD:OFC
UPD:PMPPERF

Output Message(s):

UPD:APPLY
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1960 INSTALL BWM

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:APPLY-FILER-E
RELEASE 5E19(1) only
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests application of a file replacement update associated with a software update. FILER replaces an old file with a new one. The new file retains the old file's characteristics (mode, owner, and so forth).

Format 1 is to be used for administrative module (AM) updates only.

Format 2 is to be used for switching module (SM), communications module processor (CMP) or peripheral updates.

Format 4 is to be used for updates that need the existence of the pathlist file to determine where the update will be applied.

Warning: *This message overwrites data in system files. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.*

2. FORMAT

```
[1]    UPD:APPLY:FILER,UPNM="a",FN="b",TARGET=AM,UF="d"[ ,NREL][ ,UCL];
[2]    _____
        UPD:APPLY:FILER,UPNM="a",FN="b",TARGET=c,UF="d",DF="e"[ ,UCL];
[3]    _____
        UPD:APPLY:FILER,UPNM="a",FN="b",TARGET=g,UF="e",DF="f"[ ,UCL];
[4]    _____
        UPD:APPLY:FILER,UPNM="a",FN="b",TARGET="AMPATH",UF="d"[ ,NREL]. . .
        . . .[ ,UCL];
_____
```

3. EXPLANATION OF MESSAGE

NREL = Forces a file replacement of 'b' by 'd' when the file types are different in their magic numbers or when one is in common object file format and the other is not.

UCL = Do not enforce order on the software update name 'a'.

a = Software update, specified as BWMrr-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn. Valid value(s):

BWM	= Indicates an off-site originated update.
CFT	= Indicates an on-site originated update.
TMP	= Indicates an off-site originated update.
yy	= The last two digits of the year issued,
rr	= The release number [for example, 18 for 5E18(1)].
nnnn	= The sequence number identifying the software update.

Note: Double quotes (" ") are required.

b = Pathname of the file to be replaced. Refer to the Routine Operations and Maintenance manual for definitions of pathname and file. If the file does not exist it will be created.

c = The processor to receive the update. Valid value(s):

AMPATH	= Office specific update in the AM.
CMP	= Communication module processor.
DDMA	= Diagnostic direct memory access
DNUSCC	= Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.

DNUSTMX	= Transmission multiplexer.
DSC3	= Digital service circuit - model 3.
DSP13K	= 8K digital signal processor (DSP) for code division multiple access (CDMA) protocol handler for voice.
DSP8K	= 8K digital signal processor for CDMA protocol handler for voice.
DSPEVRC	= EVRC digital signal processor for CDMA protocol handler for voice.
GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP22	= PH22 common input/output processor (IOP) image.
IP3S	= PH3 CCS IOP image.
IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit (OIU) - 24 channels.
OIUIP	= Optical interface unit - internet protocol (IP).
PH2A	= Protocol handler 2 (PH2) with ACCESS application processor (AP) image.
PH2G	= PH2 with GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 with COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 with ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PHE3B	= Protocol handler for IP backhaul image.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
PHV6C	= PHV6 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SM2KFX	= SM-2000 <i>PowerPC</i> ¹ upgrade.
SMPMH	= Switching module processor message handler (MH) operational image.
SMPMHLB	= Switching module processor MH little boot image.

1. Registered trademark of International Business Machines Corp.

V3DACP = ACELP DSP for TDMA PHV3.
V4D13K = 13K DSP, for CDMA for PHV4.
V4D8K = 8K DSP, for CDMA for PHV4.
V4DACP = ACELP DSP, for TDMA for PHV4.
V4DEV1 = EVRC1 DSP, for CDMA for PHV4.
V4DEV2 = EVRC2 DSP, for CDMA for PHV4.
V4DEV3 = EVRC3 DSP, for CDMA for PHV4.
V4DVSP = VSELP DSP, for TDMA for PHV4.
V4DISL = ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K = 13K + EVRC DSP, for CDMA for PHV5.
V5D8K = 8K DSP, for CDMA for PHV5.
V5DEV1 = EVRC1 DSP, for CDMA for PHV5.
V5DEV2 = EVRC2 DSP, for CDMA for PHV5.
V5DEV3 = EVRC3 DSP, for CDMA for PHV5.
V5DVSP = VSELP DSP, for TDMA PHV5.
V5DISL = ISLP DSP, for IS41 TDMA PHV5 data circuit.
V6D13K = 13K + EVRC DSP, for CDMA for PHV6.

d = Name of the source file in the software update package.

e = Pathname of the dependent file to be replaced. Refer to the Operations and Routine Maintenance manual for definitions of pathname and file. If the file does not exist it will be created.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a UPD:APPLY output message.

5. REFERENCES

Input Message(s):

UPD:BKOUT
UPD:DISPLAY
UPD:OFC
UPD:PMPPERF

Output Message(s):

UPD:APPLY
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1960 INSTALL BWM

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:APPLY-FILER-F
RELEASE 5E20(1) and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests application of a file replacement update associated with a software update. FILER replaces an old file with a new one. The new file retains the old file's characteristics (mode, owner, and so forth).

Format 1 is to be used for administrative module (AM) updates only.

Format 2 is to be used for switching module (SM) or peripheral updates.

Format 3 is to be used for updates that need the existence of the pathlist file to determine where the update will be applied.

Warning: *This message overwrites data in system files. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.*

2. FORMAT

```
[1]      UPD:APPLY:FILER,UPNM="a",FN="b",TARGET=AM,UF="d"[ ,NREL][ ,UCL];
[2]      UPD:APPLY:FILER,UPNM="a",FN="b",TARGET=c,UF="d",DF="e"[ ,UCL];
[3]      UPD:APPLY:FILER,UPNM="a",FN="b",TARGET="AMPATH",UF="d"[ ,NREL]. . .
        . . .[ ,UCL];
```

3. EXPLANATION OF MESSAGE

NREL = Forces a file replacement of 'b' by 'd' when the file types are different in their magic numbers or when one is in common object file format and the other is not.

UCL = Do not enforce order on the software update name 'a'.

a = Software update, specified as BWMrr-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn. Valid value(s):

BWM = Indicates an off-site originated update.

CFT = Indicates an on-site originated update.

TMP = Indicates an off-site originated update.

yy = The last two digits of the year issued,

rr = The release number [for example, 18 for 5E18(1)].

nnnn = The sequence number identifying the software update.

Note: Double quotes (" ") are required.

b = Pathname of the file to be replaced. Refer to the Routine Operations and Maintenance manual for definitions of pathname and file. If the file does not exist it will be created.

c = The processor to receive the update. Refer to the APP:TARGETS appendix in the Appendixes section of the Input Messages manual.

d = Name of the source file in the software update package.

e = Pathname of the dependent file to be replaced. Refer to the Operations and Routine Maintenance manual for definitions of pathname and file. If the file does not exist it will be created.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a UPD:APPLY output message.

5. REFERENCES

Output Message(s):

UPD:APPLY

UPD:SYSERR

UPD:USRERR

Input Appendix(es):

APP:TARGETS

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE

1990 INSTALL BWM

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:APPLY-FUNCR-A
RELEASE 5E15 only
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests application of a function replacement update associated with a software update.

Format 1 is to be used for AM updates only.

Format 2 is to be used for SM, CMP or peripheral updates.

Format 3 is to be used for updates that need the existence of the pathlist file to determine where the update will be applied.

Warning: *This message overwrites data in system files and in the memory of the switch. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.*

2. FORMAT

```
[1]   UPD:APPLY:FUNCR,UPNM="a",FN="b",TARGET=AM,{UF="e"|UFFN="f"}. . .
      . . .[,UCL][,WTIME="h"];
[2]   UPD:APPLY:FUNCR,UPNM="a",FN="b",TARGET=c,PACKINFO="d". . .
      . . .[,DF="g"][,UCL];
[3]   UPD:APPLY:FUNCR,UPNM="a",FN="b",TARGET="AMPATH",PACKINFO="d". . .
      . . .[,DF="g"][,UCL];
```

3. EXPLANATION OF MESSAGE

UCL = Do not enforce order on the BWM name 'a'.

a = Software update. These can be specified as BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn where BWM, TMP, and CFT identify the category of software update, yy are the last two digits of the year, and nnnn is the sequence number identifying the software update. Double quotes (" ") are required.

b = Pathname of the file to be modified. Refer to the Operations and Routine Maintenance manual for definitions of pathname, directory and files.

c = The processor to receive the update. Valid value(s):

AMPATH	= Office specific update in the AM.
CMP	= Communication module processor.
DDMA	= Diagnostic direct memory access
DNUSCC	= Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
DNUSTMX	= Transmission multiplexer.
DSC3	= Digital service circuit - model 3.
DSP13K	= 8K digital signal processor for CDMA protocol handler for voice.
DSP8K	= 8K digital signal processor for CDMA protocol handler for voice.
DSPEVRC	= EVRC digital signal processor for CDMA protocol handler for voice.
GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP3S	= Protocol handler 3 CCS OIP image.
IP4F	= Frame relay protocol handler version 4 I/O processor.

IP4I	= PH4I operational input/output processor.
IP4IF	= ISDN frame relay protocol handler version 4 I/O processor.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
PH2A	= Protocol handler 2 (PH2) with ACCESS application processor image.
PH2G	= PH2 with GATEWAY application processor image.
PH3C	= Protocol handler 3 (PH3) with COMMON application processor image.
PH3S	= PH3 CCS AP image.
PH4A	= Protocol handler 4 (PH4) access image.
PH4G	= PH4 gateway image.
PH4I	= PH4 with integrated services digital network (ISDN) application processor image.
PHA1A	= Protocol handler for ATM (asynchronous transfer mode).
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice for CDMA (code division multiple access).
PHV3C	= Protocol handler for voice version 3 for CDMA application.
PHV4C	= Protocol handler for voice version 4 for CDMA application.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SMPMH	= Switching module processor message handler (MH) operational image.
SMPMHLB	= Switching module processor MH little boot image.
V3DACP	= ACELP digital signal processor, for TDMA protocol handler for voice.
V4D13K	= 13K DSP, for CDMA protocol handler for voice version 4.
V4D8K	= 8K DSP, for CDMA protocol handler for voice version 4.
V4DACP	= ACELP DSP, for TDMA protocol handler for voice version 4.
V4DEVR1	= EVRC1 DSP, for CDMA protocol handler for voice version 4.
V4DEVR2	= EVRC2 DSP, for CDMA protocol handler for voice version 4.
V4DEVR3	= EVRC3 DSP, for CDMA protocol handler for voice version 4.
V4DVSP	= VSELP DSP, for TDMA protocol handler for voice version 4.
V4DISL	= ISLP DSP, for IS41 TDMA protocol handler for data circuit.

d = Name of the PACKINFO file.

e = Pathname(s) of one or more update files. May be the name of a single .m file, or a list of .m files. Refer to the Operations and Routine Maintenance manual for instructions on entering a list of file names.

f = Name of the file containing list of .m files for this update.

g = Pathname of the dependent file to be modified. Refer to the Operations and Routine Maintenance manual for definitions of pathname, directory, and files.

h = The number of seconds ("wait time", WTIME), for the automatic backout wait (0-3600 seconds, default: 300). This parameter is only applicable when 'b' is non-killable.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the UPD:APPLY output message.

5. REFERENCES

Input Message(s):

UPD:BKOUT
UPD:DISPLAY
UPD:OFC
UPD:PMPPERF

Output Message(s):

UPD:APPLY
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950	PROGRAM UPDATE MAINTENANCE
1960	INSTALL BWM

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:APPLY-FUNCR-B
RELEASE 5E16(1) only
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests application of a function replacement update associated with a software update.

Format 1 is to be used for AM updates only.

Format 2 is to be used for SM, CMP or peripheral updates.

Format 3 is to be used for updates that need the existence of the pathlist file to determine where the update will be applied.

Warning: *This message overwrites data in system files and in the memory of the switch. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.*

2. FORMAT

```
[1]   UPD:APPLY:FUNCR,UPNM="a",FN="b",TARGET=AM,{UF="e"|UFFN="f"}. . .
      . . .[,UCL][,WTIME="h"];

[2]   UPD:APPLY:FUNCR,UPNM="a",FN="b",TARGET=c,PACKINFO="d". . .
      . . .[,DF="g"][,UCL];

[3]   UPD:APPLY:FUNCR,UPNM="a",FN="b",TARGET="AMPATH",PACKINFO="d". . .
      . . .[,DF="g"][,UCL];
```

3. EXPLANATION OF MESSAGE

UCL = Do not enforce order on the BWM name 'a'.

a = Software update. These can be specified as BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn where BWM, TMP, and CFT identify the category of software update, yy are the last two digits of the year, and nnnn is the sequence number identifying the software update. Double quotes (" ") are required.

b = Pathname of the file to be modified. Refer to the Operations and Routine Maintenance manual for definitions of pathname, directory and files.

c = The processor to receive the update. Valid value(s):

AMPATH	= Office specific update in the AM.
CMP	= Communication module processor.
DDMA	= Diagnostic direct memory access
DNUSCC	= Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
DNUSTMX	= Transmission multiplexer.
DSC3	= Digital service circuit - model 3.
DSP13K	= 8K digital signal processor (DSP) for code division multiple access (CDMA) protocol handler for voice.
DSP8K	= 8K digital signal processor for CDMA protocol handler for voice.
DSPEVRC	= EVRC digital signal processor for CDMA protocol handler for voice.
GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.

IDCULSI	= IDCU loop side interface.
IP22	= PH22 common input/output processor (IOP) image.
IP3S	= PH3 CCS IOP image.
IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MH32	= Switching module processor message handler 32 (MH32) image.
MHEIB	= Switching module processor message handler EIB (MHEIB) image.
MHLB	= Switching module processor MH little boot image.
MHPPC	= Switching module processor message handler power PC (MHPPC) image.
MHPPCLB	= Switching module processor MHPPC little boot image.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit - 24 channels.
PH2A	= Protocol handler 2 (PH2) ACCESS application processor (AP) image.
PH2G	= PH2 GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
V3DACP	= ACELP DSP for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEVR1	= EVRC1 DSP, for CDMA for PHV4.
V4DEVR2	= EVRC2 DSP, for CDMA for PHV4.
V4DEVR3	= EVRC3 DSP, for CDMA for PHV4.
V4DVSP	= VSELP DSP, for TDMA for PHV4.
V4DISL	= ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K	= 13K DSP, for CDMA for PHV5.
V5D8K	= 8K DSP, for CDMA for PHV5.
V5DACP	= ACELP DSP, for TDMA for PHV5.
V5DEVR1	= EVRC1 DSP, for CDMA for PHV5.
V5DEVR2	= EVRC2 DSP, for CDMA for PHV5.
V5DEVR3	= EVRC3 DSP, for CDMA for PHV5.

- V5DVSP = VSELP DSP, for TDMA PHV5.
V5DISL = ISLP DSP, for IS41 TDMA PHV5 data circuit.
- d = Name of the PACKINFO file.
- e = Pathname(s) of one or more update files. May be the name of a single .m file, or a list of .m files. Refer to the Operations and Routine Maintenance manual for instructions on entering a list of file names.
- f = Name of the file containing list of .m files for this update.
- g = Pathname of the dependent file to be modified. Refer to the Operations and Routine Maintenance manual for definitions of pathname, directory, and files.
- h = The number of seconds ("wait time", WTIME), for the automatic backout wait (0-3600 seconds, default: 300). This parameter is only applicable when 'b' is non-killable.

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted. Followed by the UPD:APPLY output message.

5. REFERENCES

Input Message(s):

UPD:BKOUT
UPD:DISPLAY
UPD:OFC
UPD:PMPPERF

Output Message(s):

UPD:APPLY
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1960 INSTALL BWM

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:APPLY-FUNCR-C
RELEASE 5E16(2) - 5E17(1)
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests application of a function replacement update associated with a software update.

Format 1 is to be used for AM updates only.

Format 2 is to be used for SM, CMP or peripheral updates.

Format 3 is to be used for updates that need the existence of the pathlist file to determine where the update will be applied.

Warning: *This message overwrites data in system files and in the memory of the switch. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.*

2. FORMAT

```
[1]   UPD:APPLY:FUNCR,UPNM="a",FN="b",TARGET=AM,{UF="e"|UFFN="f"}. . .
      . . .[,UCL][,WTIME="h"];

[2]   UPD:APPLY:FUNCR,UPNM="a",FN="b",TARGET=c,PACKINFO="d". . .
      . . .[,DF="g"][,UCL];

[3]   UPD:APPLY:FUNCR,UPNM="a",FN="b",TARGET="AMPATH",PACKINFO="d". . .
      . . .[,DF="g"][,UCL];
```

3. EXPLANATION OF MESSAGE

UCL = Do not enforce order on the BWM name 'a'.

a = Software update. These can be specified as BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn where BWM, TMP, and CFT identify the category of software update, yy are the last two digits of the year, and nnnn is the sequence number identifying the software update. Double quotes (" ") are required.

b = Pathname of the file to be modified. Refer to the Operations and Routine Maintenance manual for definitions of pathname, directory and files.

c = The processor to receive the update. Valid value(s):

AMPATH	= Office specific update in the AM.
CMP	= Communication module processor.
DDMA	= Diagnostic direct memory access
DNUSCC	= Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
DNUSTMX	= Transmission multiplexer.
DSC3	= Digital service circuit - model 3.
DSP13K	= 8K digital signal processor (DSP) for code division multiple access (CDMA) protocol handler for voice.
DSP8K	= 8K digital signal processor for CDMA protocol handler for voice.
DSPEVRC	= EVRC digital signal processor for CDMA protocol handler for voice.
GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.

IDCULSI	= IDCU loop side interface.
IP22	= PH22 common input/output processor (IOP) image.
IP3S	= PH3 CCS IOP image.
IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MH32	= Switching module processor message handler 32 (MH32) image.
MHEIB	= Switching module processor message handler EIB (MHEIB) image.
MHLB	= Switching module processor MH little boot image.
MHPPC	= Switching module processor message handler <i>PowerPC</i> ¹ (MHPPC) image.
MHPPCLB	= Switching module processor MHPPC little boot image.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit (OIU) - 24 channels.
OIUIP	= Optical interface unit - internet protocol (IP).
PH2A	= Protocol handler 2 (PH2) ACCESS application processor (AP) image.
PH2G	= PH2 GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SM2KFX	= SM-2000 <i>PowerPC</i> upgrade.
V3DACP	= ACELP DSP for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEV1R1	= EVRC1 DSP, for CDMA for PHV4.
V4DEV2R2	= EVRC2 DSP, for CDMA for PHV4.
V4DEV3R3	= EVRC3 DSP, for CDMA for PHV4.
V4DVSP	= VSELP DSP, for TDMA for PHV4.
V4DISL	= ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K	= 13K DSP, for CDMA for PHV5.

1. Registered trademark of International Business Machines Corp.

- V5D8K = 8K DSP, for CDMA for PHV5.
V5DACP = ACELP DSP, for TDMA for PHV5.
V5DEVR1 = EVRC1 DSP, for CDMA for PHV5.
V5DEVR2 = EVRC2 DSP, for CDMA for PHV5.
V5DEVR3 = EVRC3 DSP, for CDMA for PHV5.
V5DVSP = VSELP DSP, for TDMA PHV5.
V5DISL = ISLP DSP, for IS41 TDMA PHV5 data circuit.
- d = Name of the PACKINFO file.
- e = Pathname(s) of one or more update files. May be the name of a single .m file, or a list of .m files. Refer to the Operations and Routine Maintenance manual for instructions on entering a list of file names.
- f = Name of the file containing list of .m files for this update.
- g = Pathname of the dependent file to be modified. Refer to the Operations and Routine Maintenance manual for definitions of pathname, directory, and files.
- h = The number of seconds ("wait time", WTIME), for the automatic backout wait (0-3600 seconds, default: 300). This parameter is only applicable when 'b' is non-killable.

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted. Followed by the UPD:APPLY output message.

5. REFERENCES

Input Message(s):

UPD:BKOUT
UPD:DISPLAY
UPD:OFC
UPD:PMPPERF

Output Message(s):

UPD:APPLY
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1960 INSTALL BWM

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:APPLY-FUNCR-D
RELEASE 5E18(1) - 5E19(1)
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests application of a function replacement update associated with a software update.

Format 1 is to be used for AM updates only.

Format 2 is to be used for SM, CMP or peripheral updates.

Format 3 is to be used for updates that need the existence of the pathlist file to determine where the update will be applied.

Warning: *This message overwrites data in system files and in the memory of the switch. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.*

2. FORMAT

```
[1]   UPD:APPLY:FUNCR,UPNM="a",FN="b",TARGET=AM,{UF="e"|UFFN="f"}. . .
      . . .[,UCL][,WTIME="h"];

[2]   UPD:APPLY:FUNCR,UPNM="a",FN="b",TARGET=c,PACKINFO="d". . .
      . . .[,DF="g"][,UCL];

[3]   UPD:APPLY:FUNCR,UPNM="a",FN="b",TARGET="AMPATH",PACKINFO="d". . .
      . . .[,DF="g"][,UCL];
```

3. EXPLANATION OF MESSAGE

UCL = Do not enforce order on the BWM name 'a'.

a = Software update, specified as BWMrr-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn. Valid value(s):

BWM = Indicates an off-site originated update.

CFT = Indicates an on-site originated update.

TMP = Indicates an off-site originated update.

yy = The last two digits of the year.

rr = The release number [such as, 18 for 5E18(1)].

nnnn = The sequence number identifying the software update.

Note: Double quotes (") are required.

b = Pathname of the file to be modified. Refer to the Operations and Routine Maintenance manual for definitions of pathname, directory and files.

c = The processor to receive the update. Valid value(s):

AMPATH = Office specific update in the AM.

CMP = Communication module processor.

DDMA = Diagnostic direct memory access

DNUSCC = Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.

DNUSTMX = Transmission multiplexer.

DSC3 = Digital service circuit - model 3.

DSP13K = 8K digital signal processor (DSP) for code division multiple access (CDMA) protocol handler for voice.

DSP8K = 8K digital signal processor for CDMA protocol handler for voice.

DSPEVRC	= EVRC digital signal processor for CDMA protocol handler for voice.
GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP22	= PH22 common input/output processor (IOP) image.
IP3S	= PH3 CCS IOP image.
IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MH32	= Switching module processor message handler 32 (MH32) image.
MHEIB	= Switching module processor message handler EIB (MHEIB) image.
MHLB	= Switching module processor MH little boot image.
MHPPC	= Switching module processor message handler <i>PowerPC</i> ¹ (MHPPC) image.
MHPPCLB	= Switching module processor MHPPC little boot image.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit (OIU) - 24 channels.
OIUIP	= Optical interface unit - internet protocol (IP).
PH2A	= Protocol handler 2 (PH2) ACCESS application processor (AP) image.
PH2G	= PH2 GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
PHV6C	= PHV6 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SM2KFX	= SM-2000 <i>PowerPC</i> upgrade.
V3DACP	= ACELP DSP for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.

1. Registered trademark of International Business Machines Corp.

V4DACP = ACELP DSP, for TDMA for PHV4.
V4DEVR1 = EVRC1 DSP, for CDMA for PHV4.
V4DEVR2 = EVRC2 DSP, for CDMA for PHV4.
V4DEVR3 = EVRC3 DSP, for CDMA for PHV4.
V4DVSP = VSELP DSP, for TDMA for PHV4.
V4DISL = ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K = 13K + EVRC DSP, for CDMA for PHV5.
V5D8K = 8K DSP, for CDMA for PHV5.
V5DEVR1 = EVRC1 DSP, for CDMA for PHV5.
V5DEVR2 = EVRC2 DSP, for CDMA for PHV5.
V5DEVR3 = EVRC3 DSP, for CDMA for PHV5.
V5DVSP = VSELP DSP, for TDMA PHV5.
V5DISL = ISLP DSP, for IS41 TDMA PHV5 data circuit.

- d = Name of the PACKINFO file.
- e = Pathname(s) of one or more update files. May be the name of a single .m file, or a list of .m files. Refer to the Operations and Routine Maintenance manual for instructions on entering a list of file names.
- f = Name of the file containing list of .m files for this update.
- g = Pathname of the dependent file to be modified. Refer to the Operations and Routine Maintenance manual for definitions of pathname, directory, and files.
- h = The number of seconds ("wait time", WTIME), for the automatic backout wait (0-3600 seconds, default: 300). This parameter is only applicable when 'b' is non-killable.

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted. Followed by the UPD:APPLY output message.

5. REFERENCES

Input Message(s):

UPD:BKOUT
UPD:DISPLAY
UPD:OFC
UPD:PMPPERF

Output Message(s):

UPD:APPLY
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1960 INSTALL BWM

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:APPLY-FUNCR-E
RELEASE 5E20(1) and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests application of a function replacement update associated with a software update.

Format 1 is to be used for administrative module (AM) updates only.

Format 2 is to be used for switching module (SM), Communication module 3 (CM3) message switch application processor (CM3MSGSP), or peripheral updates.

Format 3 is to be used for updates that need the existence of the pathlist file to determine where the update will be applied.

Warning: *This message overwrites data in system files and in the memory of the switch. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.*

2. FORMAT

```
[1]   UPD:APPLY:FUNCR,UPNM="a",FN="b",TARGET=AM,{UF="e"|UFFN="f"}. . .
      . . .[,UCL][,WTIME="h"];

[2]   UPD:APPLY:FUNCR,UPNM="a",FN="b",TARGET=c,PACKINFO="d". . .
      . . .[,DF="g"][,UCL];

[3]   UPD:APPLY:FUNCR,UPNM="a",FN="b",TARGET="AMPATH",PACKINFO="d". . .
      . . .[,DF="g"][,UCL];
```

3. EXPLANATION OF MESSAGE

UCL = Do not enforce order on the BWM name 'a'.

a = Software update, specified as BWMrr-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn. Valid value(s):

BWM = Indicates an off-site originated update.

CFT = Indicates an on-site originated update.

TMP = Indicates an off-site originated update.

yy = The last two digits of the year.

rr = The release number [such as, 18 for 5E18(1)].

nnnn = The sequence number identifying the software update.

Note: Double quotes (") are required.

b = Pathname of the file to be modified. Refer to the Operations and Routine Maintenance manual for definitions of pathname, directory and files.

c = The processor to receive the update. Refer to the APP:TARGETS appendix in the Appendixes section of the Input Messages manual.

d = Name of the PACKINFO file.

e = Pathname(s) of one or more update files. May be the name of a single .m file, or a list of .m files. Refer to the Operations and Routine Maintenance manual for instructions on entering a list of file names.

f = Name of the file containing list of .m files for this update.

- g = Pathname of the dependent file to be modified. Refer to the Operations and Routine Maintenance manual for definitions of pathname, directory, and files.
- h = The number of seconds ("wait time", WTIME), for the automatic backout wait (0-3600 seconds, default: 300). This parameter is only applicable when 'b' is non-killable.

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted. Followed by the UPD:APPLY output message.

5. REFERENCES

Output Message(s):

UPD:APPLY
UPD:SYSERR
UPD:USRERR

Input Appendix(es):

APP:TARGETS

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1990 INSTALL BWM

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:APPLY-UNIX-A
RELEASE 5E15 - 5E17(1)
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests update to the software update database (Cud) after the successful execution of the first input message preceding the first UPD:APPLY message in the APPLY section of the MSGS file in a software update (SU).

This input message is not part of the MSGS file and is automatically executed during the Software Update process. If there is no input message preceding the first UPD:APPLY line in the MSGS file, this input message will not be executed.

Warning: *This message overwrites data in system files and is automatically executed, if needed, when 9310 or 9410 is poked from the 1960 page or 9800 is poked from the 1940 page. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.*

2. FORMAT

UPD:APPLY:UNIXCMD,UPNM="a";

3. EXPLANATION OF MESSAGE

a = Software update: specified as BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn where BWM, TMP, and CFT identify the category of software update, yy is the last two digits of the year issued, and nnnn is the sequence number identifying the software update ("" is required).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a UPD:APPLY output message.

5. REFERENCES

Input Message(s):

UPD:APPLY-UNIX
UPD:BKOUT
UPD:DISPLAY
UPD:OFC

Output Message(s):

UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)
1960 (INSTALL BWM)

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:APPLY-UNIX-B
RELEASE 5E18(1) and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests update to the software update database after the successful execution of the first input message preceding the first UPD:APPLY message in the APPLY section of the MSGS file in a software update (SU).

This input message is not part of the MSGS file and is automatically executed during the software update process. If there is no input message preceding the first UPD:APPLY line in the MSGS file, this input message will not be executed.

Warning: *This message overwrites data in system files and is automatically executed, if needed, when 9310 or 9410 is poked from the 1960 page or 9800 is poked from the 1940 page. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.*

2. FORMAT

UPD:APPLY:UNIXCMD,UPNM="a" ;

3. EXPLANATION OF MESSAGE

a = Software update, specified as BWMrr-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn. Valid value(s):

BWM	= Indicates an off-site originated update.
CFT	= Indicates an on-site originated update.
TMP	= Indicates an off-site originated update.
yy	= The last two digits of the year issued.
rr	= The release number [for example, 18 for 5E18(1)].
nnnn	= The sequence number identifying the software update.

Note: Double quotes (" ") are required.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the UPD:APPLY output message.

5. REFERENCES

Input Message(s):

UPD:APPLY-UNIX
UPD:BKOUT
UPD:DISPLAY
UPD:OFC

Output Message(s):

UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950	PROGRAM UPDATE MAINTENANCE
1960	INSTALL BWM

ID UPD:AUTOCHK
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Resuests that an office health check be performed (UPD:AUTOCHK) or requests that the results of the last office healthcheck be displayed (UPD:AUTOCHK:STATUS).

2. FORMAT

UPD:AUTOCHK:[STATUS];

3. EXPLANATION OF MESSAGE

STATUS = Show the status of the last office health check that was performed.

4. SYSTEM RESPONSE

NG = No good. The software update process automation feature is not available.

PF = Printout follows. The request has been accepted. Followed by a UPD:AUTOCHK output message.

5. REFERENCES

Input Message(s):

UPD:AUTO
UPD:AUTOPROFILE
UPD:AUTOSCHED

Output Message(s):

UPD:AUTO
UPD:AUTOCHK
UPD:AUTOPROFILE
UPD:AUTOSCHED

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1941 (BWM AUTOMATION SCHEDULING)
1942 (BWM AUTOMATION OFFICE PROFILE)
1943 (BWM AUTOMATION HEALTH CHECK)
1950 (PROGRAM UPDATE MAINTENANCE)
1960 (INSTALL BWM)

ID UPD:AUTOPROFILE
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that the software update (SU) process automation office profile be changed according to the arguments and values specified in the input message. This SU process automation office profile is used when an SU is scheduled to be automatically installed. The values contained in the office profile are used as defaults when an SU is scheduled in the case where other information is not given.

For example, if an SU is scheduled for automatic installation and no installation state is specified, then the installation state defaults to what is listed in the office profile ('a' in this case).

Note: The valid values allowed for each argument are listed with the description of each argument.

2. FORMAT

UPD:AUTOPROFILE:{ [INSTATE="a"], [SOAKTM=b], [ALARMLVL="c"], [CSCANS="d"],
[WARNTM=e], [PROCINIT=f], [CLRBWM="g"], [SUNOFF=h-i], [MONOFF=h-i],
[TUEOFF=h-i], [WEDOFF=h-i], [THUOFF=h-i], [FRIOFF=h-i], [SATOFF=h-i],
[HCON=j], [HCOFF=k], [HCINFO=1] };

3. EXPLANATION OF MESSAGE

a = The install state. Valid value(s):

OFC
SOAK
Vfy

b = The length of soak time desired for an SU that is automatically installed in the form HHMM.

HH = Hours.
MM = Minutes.

c = The alarm level that should go off when an automated SU installation halts for any reason (MAJOR or MINOR). This also controls the level of alarm that fires for the advance warning message.

d = State indicating whether or not SU process automation update office profile input messages may be issued over the CSCANS interface (Y or N).

e = The time interval before SU automation starts that a warning message is desired in the form HHMM.

HH = Hours.
MM = Minutes.

For example, if set to 0030 then a warning message prints out and an office alarm goes off 30 minutes before a scheduled SU begins automatic installation.

f = The number of hours since any processor initialization took place for AM, SM, CMP in the form HH.

HH = Hours.

g = State indicating whether or not SU process automation should remove the SU after it has completed the make official stage (Y or N).

- h = The beginning of the time interval that SU automation is not allowed, for the given day in the form HHMM (from 0000 to 2359).
- i = The end of the time interval that SU automation is not allowed, for the given day in the form HHMM (from 0000 to 2359).
- j = A number indicating the health check condition that should be turned ON. Valid value(s) shown in Exhibit A.
- k = A number indicating the health check condition that should be turned OFF. Valid value(s) shown in Exhibit A.
- l = A number indicating the health check condition for which a more detailed explanation is desired. Valid value(s) shown in Exhibit A.

Value	Description
00	AM BREAKPOINTS
01	AM DUPLEX
02	BWM IS TEMP
03	BWM INCONSISTNT
04	SCC LINK
05	AM OVERLOAD
06	SM OVERLOAD
07	CMP OVERLOAD
08	SM HASHERR
09	LAST CMP HASHERR
10	LAST SM ISOLATED
11	LAST SM BREAKPOINTS
12	CMP BREAKPOINTS
13	LAST AM INIT
14	LAST SM INIT
15	LAST CMP INIT
16	RETR RC INHIBIT
17	DBREORG INHIBIT
18	RC CORCS INHIBIT
19	RETR GNUPD LTG
20	BWM ODD BACKUP
21	RC IN PROGRESS
22	GEN BACKUP
23	PERIPHERALS
24	FILESPEC

4. SYSTEM RESPONSE

- NG = No good. The software update process automation feature is not available.
- PF = Printout follows. The request has been accepted. Followed by a UPD:AUTOPROFILE output message.

5. REFERENCES

Input Message(s):

UPD:AUTO
UPD:AUTOCHK
UPD:AUTOSCHED

Output Message(s):

UPD:AUTO
UPD:AUTOCHK
UPD:AUTOPROFILE
UPD:AUTOSCHED

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1941 (BWM AUTOMATION SCHEDULING)
1942 (BWM AUTOMATION OFFICE PROFILE)
1943 (BWM AUTOMATION HEALTH CHECK)
1950 (PROGRAM UPDATE MAINTENANCE)
1960 (INSTALL BWM)

ID UPD:AUTOSCHED
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that the named software update (SU) be scheduled for automatic installation (UPNM option) or requests the status of the currently scheduled SU (STATUS option). It is important to note that if values are given for DATE, TIME, and/or STATE, then these values are used only for the SU currently being scheduled and these values will override the default values stored in the office profile. If no values are given, then the default values are used from the office profile.

2. FORMAT

UPD:AUTOSCHED:STATUS[,UPNM="a"][,DATE=b][,TIME=c][,STATE="d"]

3. EXPLANATION OF MESSAGE

STATUS = Show the status of the SU currently scheduled for automatic installation, if any.

a = The 10 character software update name.

b = The date to automatically install the SU in the form MMDDYY.

DD = Day.
MM = Month.
YY = Year.

c = The time to automatically install the SU in the form HHMM.

HH = Hour.
MM = Minute.

d = The install state to automatically install the SU. Valid value(s):

OFC
SOAK
VFY

4. SYSTEM RESPONSE

NG = No good. The software update process automation feature is not available.

PF = Printout follows. The request has been accepted. Followed by a UPD:AUTOSCHED output message.

5. REFERENCES

Input Message(s):

UPD:AUTO
UPD:AUTOCHK
UPD:AUTOPROFILE

Output Message(s):

UPD:AUTO
UPD:AUTOCHK
UPD:AUTOPROFILE
UPD:AUTOSCHED

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

- 1941 (BWM AUTOMATION SCHEDULING)
- 1942 (BWM AUTOMATION OFFICE PROFILE)
- 1943 (BWM AUTOMATION HEALTH CHECK)
- 1950 (PROGRAM UPDATE MAINTENANCE)
- 1960 (INSTALL BWM)

ID UPD:AUTO
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that the status of software update (SU) process automation be determined and/or changed. This input message may be used to inhibit, allow, stop, resume, cancel or request the current status of SU process automation.

2. FORMAT

UPD:AUTO:a[,REASON=b];

3. EXPLANATION OF MESSAGE

- a = Request type. Valid value(s):
- | | |
|--------|---|
| ALW | = Allow SU process automation. This allows an SU to be scheduled for automatic installation. |
| CANCEL | = Cancels the scheduled automatic installation for the SU that is currently scheduled for automatic installation. May also be used to cancel an SU that has stopped its automatic installation. |
| INH | = Inhibit SU process automation. This prevents an SU from being scheduled for automatic installation. |
| RESUME | = Resume a previously stopped or aborted automated SU installation. |
| Note: | This should NEVER appear in an SU MSGS file, and it should only be used by the office personnel to resume an automated SU installation that was previously stopped or aborted. |
| STATUS | = Show the current status of SU process automation. If it is inhibited this option shows why it is inhibited by displaying the contents of the reason field. |
| STOP | = Stop the automated SU installation that is currently in progress. |
| Note: | This causes an office alarm to fire (MAJOR or MINOR alarm, as set in the SU automation office profile). |
- b = Reason that the office is inhibiting SU process automation (maximum length = 50 characters).

4. SYSTEM RESPONSE

- NG = No good. The software update process automation feature is not available.
- PF = Printout follows. The request has been accepted. Followed by a UPD:AUTO output message.

5. REFERENCES

Input Message(s):

UPD:AUTOCHK
UPD:AUTOPROFILE
UPD:AUTOSCHED

Output Message(s):

UPD:AUTO
UPD:AUTOCHK

UPD:AUTOPROFILE
UPD:AUTOSCHED

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1941 (BWM AUTOMATION SCHEDULING)
1942 (BWM AUTOMATION OFFICE PROFILE)
1943 (BWM AUTOMATION HEALTH CHECK)
1950 (PROGRAM UPDATE MAINTENANCE)
1960 (INSTALL BWM)

ID UPD:BKOUT-A
RELEASE 5E15 - 5E17(1)
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that software updates be backed out. Software updates can be backed out only in the reverse order in which they were applied.

2. FORMAT

UPD:BKOUT:{UPNM="a"|ALL}[,OFC];

3. EXPLANATION OF MESSAGE

ALL = Remove all temporary software updates active in the system.
OFC = Backout software update 'a' even though it is official.
a = Software update: specified as BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn where BW, TMP, and CFT identify the category of software update, yy is the last two digits of the year, and nnnn is the sequence number identifying the software update (" " is required).

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by one or more UPD:BKOUT output messages.

5. REFERENCES

Input Message(s):

UPD:APPLY-BYTER
UPD:APPLY-FILER
UPD:APPLY-FUNCR
UPD:DISPLAY

Output Message(s):

UPD:BKOUT
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)
1960 (INSTALL BW)

ID UPD:BKOUT-B
RELEASE 5E18(1) and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that software updates be backed out. Software updates can be backed out only in the reverse order in which they were applied.

2. FORMAT

UPD:BKOUT:{UPNM="a"|ALL}[,OFC];

3. EXPLANATION OF MESSAGE

ALL = Remove all temporary software updates active in the system.
OFC = Backout software update 'a' even though it is official.
a = Software update, specified as BWMrr-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn. Valid value(s):
BWM = Indicates an off-site originated update.
CFT = Indicates an on-site originated update.
TMP = Indicates an off-site originated update.
yy = The last two digits of the year.
rr = The release number [for example, 18 for 5E18(1)].
nnnn = The sequence number identifying the software update.

Note: Double quotes (" ") are required.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by one or more UPD:BKOUT output messages.

5. REFERENCES

Input Message(s):

UPD:APPLY-BYTER
UPD:APPLY-FILER
UPD:APPLY-FUNCR
UPD:DISPLAY

Output Message(s):

UPD:BKOUT
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1960 INSTALL BWM

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:BLDBOOT
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that the administrative module (AM) minimum-configuration or full-configuration boot image be updated. This message replaces UPD:APPDMRT and UPD:DMRT input messages only.

Warning: *All existing data in the targeted boot image will be destroyed.*

2. FORMAT

UPD:BLDBOOT[,BOOTIMAGE="a"][,SGDB="b"][,SGEN="c"][,SHADOW="d"];

3. EXPLANATION OF MESSAGE

- a = Name of boot images to be generated. The default ("/dmert") rebuilds the minimum-configuration boot image. To rebuild the full-configuration boot image, use "/appdmert" (" " is required).
- b = Name of the system generation (SG) data base to be used in building the boot image. The default data base for the minimum-configuration boot image is /data base/dmert.sg. The default data base for the full-configuration boot image is /data base/appdmert.sg (" " is required).
- c = Pathname of the process to be executed to build the boot image. Refer to the Routine Operations and Maintenance manual for definitions of file and pathname. The default process pathname is /bin/isgen (" " is required).
- d = Pathname of a file (shadow file) used in building the boot image. The file must consist entirely of adequate contiguous space and is essential to safe updating of the boot image. The default shadow file is /..dmert (" " is required).

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted. Followed by a UPD:BLDBOOT output message.

5. REFERENCES

Output Message(s):

UPD:BLDBOOT
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)
1960 (INSTALL BWM)

ID UPD:BLOCK-A
RELEASE 5E15 - 5E17(1)
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that an official software update be blocked or inhibited from being backed out. This message blocks the software update message from being backed out and any other software updates below the one specified.

The UPD:BLOCK message should only be used when a software update name is specified. If it is necessary to block all software updates that have been made official, the UPD:BLOCK message should be used with the last software update that has been made official. This would block the last official software update and all previous official software updates.

2. FORMAT

UPD:BLOCK:UPNM="a";

3. EXPLANATION OF MESSAGE

a = Software update: specified as BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn where BWM, TMP, and CFT identify the category of software update, yy is the last two digits of the year issued, and nnnn is the sequence number identifying the software update (" " is required).

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by one or more UPD:BKOUT output messages.

5. REFERENCES

Input Message(s):
UPD:BKOUT

Output Message(s):
UPD:BKOUT
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):
1950 (PROGRAM UPDATE MAINTENANCE)
1960 (INSTALL BWM)

ID UPD:BLOCK-B
RELEASE 5E18(1) and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that an official software update be blocked or inhibited from being backed out. This message blocks the software update message from being backed out and any other software updates below the one specified.

The UPD:BLOCK message should only be used when a software update name is specified. If it is necessary to block all software updates that have been made official, the UPD:BLOCK message should be used with the last software update that has been made official. This would block the last official software update and all previous official software updates.

2. FORMAT

UPD:BLOCK:UPNM="a";

3. EXPLANATION OF MESSAGE

a = Software update, specified as BWMrr-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn. Valid value(s):

BWM	= Indicates an off-site originated update.
CFT	= Indicates an on-site originated update.
TMP	= Indicates an off-site originated update.
yy	= The last two digits of the year issued.
rr	= The release number [for example, 18 for 5E18(1)].
nnnn	= the sequence number identifying the software update.

Note: Double quotes (" ") are required.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by one or more UPD:BKOUT output messages.

5. REFERENCES

Input Message(s):
UPD:BKOUT

Output Message(s):
UPD:BKOUT
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950	PROGRAM UPDATE MAINTENANCE
1960	INSTALL BWM

ID UPD:BOLO
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that the last official software update be backed out. No more than three official software updates are permitted to be backed out. The three software update names are listed on MCC Display Page 1950 next to indicators showing the back-out level of each software update. The "LAST OFC" software update was most recently applied and made official. The "2nd FROM TOP" software update was made official before the "LAST OFC" software update. The "3rd FROM TOP" software update was applied and made official before both the "2nd FROM TOP" software update and the "LAST OFC" software update.

As a new software update is made official, it becomes the "LAST OFC" software update, and the previous "LAST OFC" and "2nd FROM TOP" software updates are moved down to be the "2nd FROM TOP" and "3rd FROM TOP" software updates, respectively. The previous "3rd FROM TOP" software update can no longer be backed out, and is therefore removed from the list of software updates permitted to be backed out.

Executing this input message (UPD:BOLO) in effect requests the back-out of the "LAST OFC" software update. Upon successful completion, the back-out removes the "LAST OFC" software update from the list of software updates permitted to be backed out and moves the "2nd FROM TOP" and "3rd FROM TOP" software updates up to be the new "LAST OFC" and "2nd FROM TOP" software updates, respectively. After an official back-out there is no "3rd FROM TOP" software update because one of the three software updates which could be backed out has been backed out. A software update name is added to the back-out list only when that software update is made official on the switch.

2. FORMAT

UPD:BOLO[:UCL];

3. EXPLANATION OF MESSAGE

UCL = Override the existence of the file odd.bwm, which would otherwise cause the UPD:BOLO input message to abort. The odd.bwm file contains ODD related changes associated with the software update.

4. SYSTEM RESPONSE

OK = Good. The request has been accepted. Followed by one or more UPD:BKOUT output messages and one UPD:BOLO output message.

5. REFERENCES

Input Message(s):

UPD:APPLY-BYTER
UPD:APPLY-FILER
UPD:APPLY-FUNCR
UPD:BKOUT
UPD:DISPLAY

Output Message(s):

UPD:BKOUT
UPD:BOLO

UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)

1960 (INSTALL BWM)

ID UPD:CA2IPMAP
RELEASE 5E20(1) and later
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests a packet switching unit (PSU) community address (CA) to internet protocol (IP) mapping (CA2IPMAP) update of all or specific IP neighbors in the IP address manager (AM) (IPAM) neighbor list for a given cluster or office.

The report will contain far clusters and offices as well as an indication of whether the update to the far end was successful.

2. FORMAT

UPD:CA2IPMAP[,CLUSTER=a][,OFFICE=b];

3. EXPLANATION OF MESSAGE

a = Cluster name.
b = Office name.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by one or more UPD:CA2IPMAP output messages.
NG = No good. May also include:
 - CLUSTER NOT PROVISIONED = The request has been denied. The message is valid but the cluster is not provisioned.
 - DATABASE ERROR = The request has been denied. The message is valid but an internal database error has prevented any action from being taken.
 - OFFICE NOT PROVISIONED = The request has been denied. The message is valid but the office is not provisioned.
RL = Retry later. May also include:
 - CMP UNAVAILABLE = The request has been denied. The message is valid but the CMP is not available.

5. REFERENCES

Output Message(s):
 OP:CA2IPMAP
 UPD:CA2IPMAP

Input Appendix(es):
 APP:RANGES

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:CCS-CUTOVER
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Used during the common network interface (CNI) to host global switching module (GSM) conversion procedure to copy and initialize integrated services user part (ISUP) trunk member data in the host GSM processor. The data is obtained from static data relations in the CMP processor and copied to the host GSM processor. Any ISUP trunk which is currently defined as using the CNI platform will be populated into the GSM platform relations to be used for distributing the incoming ISUP messages to the trunk SMs.

Warning: *This command uses the database manager to update internal switch cross processor static data. The command is allowed to execute only when the RC/V View 8.15 (CCS OFFICE PARAMETERS) field CUTOVER is set to the value PRECUT. Additionally, the host GSM processor is defined on the RC/V View 8.15 field HOST PLAT 2. There may also be many relation tuples requiring an update, and thus the command may take a significant amount of time to complete. The command will make a status report once every minute until it has completed.*

2. FORMAT

UPD:CCS,CUTOVER[,BKOUT];

3. EXPLANATION OF MESSAGE

BKOUT = Used to undo a previous invocation of the command. Only the previously inserted ISUP trunk data resulting from the running the UPD:CCS-CUTOVER input message is deleted from the host GSM processor.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the UPD:CCS-CUTOVER output message.

NG = No good. May also include:

- OFFICE NOT IN CUTOVER MODE = The update cannot be performed because the office is not in the correct state. RC/V View 8.15 field "CUTOVER MODE" must be set to the values PRECUT or POSTCUT for this input message to succeed.
- HOST PLAT 2 IS NOT A VALID GSM = The update cannot be performed because the GSM number specified on RC/V View 8.15 field "HOST PLAT 2" is not currently defined as a valid host GSM or does not exist. This indicates a problem with the internal data.
- CNI PRIMARY OPC NOT POPULATED ON HOST GSM = The update cannot be performed because the primary OPC of the CNI is not currently defined as the primary or alias OPC of the host GSM.

RL = Retry later. May also include:

- GSM NOT AVAILABLE = The GSM is not currently available, due to initialization or isolation.
- PREVIOUS REQUEST IN PROGRESS = A previous UPD:CCS request is being serviced.
- SYSTEM BUSY = A system resource error was encountered that prohibits the input message from running. OSDS on the AM processor failed to transmit a message to the CMP processor.

5. REFERENCES

Input Message(s):

UPD:CCS-PSUMOD

OP:CCS-GSM

Output Message(s):

UPD:CCS-CUTOVER

UPD:CCS-PSUMOD

OP:CCS-GSM

Other Manual(s):

235-200-115 *CNI Common Channel Signaling*

235-200-116 *Signaling Gateway Common Channel Signaling*

MCC Display Page(s):

118 CNI STATUS

1530 HOST GSM STATUS

RC/V View(s):

8.15 CCS OFFICE PARAMETERS

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:CCS-PSUMOD
RELEASE 5E15 and later
COMMAND GROUP CCS
APPLICATION 5

1. PURPOSE

Used during the common network interface (CNI) platform to host global switching module (GSM) platform conversion procedure to update internal integrated services user part (ISUP) trunk group/member and transaction capability application part (TCAP) application relational data for the "psu_mod" attribute. The psu_mod attribute indicates the target platform that is to be used to transport the SS7 message when the office is not in the platform conversion mode.

The input message is used towards the end of the conversion procedure to update this internal data to indicate the new signaling platform is the host GSM instead of the CNI. It may also be used during the backout of the conversion to indicate that the CNI platform is to return as the desired platform.

Warning: *This input message uses the database manager to update internal switch cross processor static data. The command is allowed to execute only when the RC/V View 8.15 (CCS OFFICE PARAMETERS) field CUTOVER is set to the value POSTCUT. There may also be many relation tuples requiring an update and the input message may take a significant amount of time to complete. The input message will make a status report once every minute until it has completed.*

2. FORMAT

UPD:CCS,PSUMOD,OLD=a,NEW=b;

3. EXPLANATION OF MESSAGE

- a = The platform number that is being switched from. When converting from the CNI platform to the host GSM platform, this parameter represents the CNI. If the platform conversion is being backed out, this parameter represents the host GSM. Valid value(s):
- 0 = CNI platform.
 - 1 -192 = GSM number.
- b = The platform number that is being switched to. When converting from the CNI platform to the host GSM platform, this parameter represents the host GSM. If the platform conversion is being backed out, this parameter represents the CNI. Valid value(s):
- 0 = CNI platform.
 - 1 -192 = GSM number.

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted. Followed by the UPD:CCS-PSUMOD output message.
- NG = No good. May also include:
- OFFICE NOT IN POST CUTOVER MODE = The update cannot be performed because the office is not in the correct state. RC/V View 8.15 field "CUTOVER MODE" must be set to the value POSTCUT for this input message to succeed.
 - CNI PRIMARY OPC NOT POPULATED ON HOST GSM = The update cannot be performed because the GSM number specified on RC/V View 8.15 field "HOST PLAT 2" is not currently defined as the valid host GSM.

- HOST PLAT 2 IS NOT A VALID GSM = The update cannot be performed because the GSM number specified on RC/V View 8.15 field "HOST PLAT 2" is not currently defined as a valid host GSM or does not exist. This indicates a problem with the internal data.
- GSM DOES NOT MATCH HOST PLAT 2 = The update cannot be performed because the GSM number specified in either the "NEW" or "OLD" field does not match RC/V View 8.15 field "HOST PLAT 2".
- OLD OR NEW PARAMETER MUST BE THE CNI = The update cannot be performed because one of the input parameters must be the CNI, represented as the value 0.

RL = Retry later. May also include:

- GSM NOT AVAILABLE = The GSM is not currently available, due to initialization or isolation.
- PREVIOUS REQUEST IN PROGRESS = A previous UPD:CCS request is being serviced.
- SYSTEM BUSY = A system resource error was encountered which prohibits the command from running. OSDS on the AM processor failed to transmit a message to the CMP processor.

5. REFERENCES

Input Message(s):

UPD:CCS-CUTOVER
OP:CCS-GSM

Output Message(s):

UPD:CCS-PSUMOD
UPD:CCS-CUTOVER
OP:CCS-GSM

Other Manual(s):

235-200-115 *CNI Common Channel Signaling*
235-200-116 *Signaling Gateway Common Channel Signaling*

MCC Display Page(s):

118 CNI STATUS
1530 HOST GSM STATUS

RC/V View(s):

8.15 CCS OFFICE PARAMETERS

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:CLR-A
RELEASE 5E15 - 5E17(1)
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that one or more software updates be cleared from the administrative module (AM) field update directory.

Warning: *Incorrect use of this message can result in the removal of needed files.*

2. FORMAT

UPD:CLR:BWM="a"[-"a"[-"a"...]];

3. EXPLANATION OF MESSAGE

a = Software update name. A list of 1 to 10 software update names may be specified, in the form BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn where BWM, TMP, and CFT identify the category of software update, yy is the last two digits of the year, and nnnn is the sequence number identifying the software update.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted.

5. REFERENCES

Input Message(s):
UPD:CLRBWM
UPD:OFC

Output Message(s):
UPD:CLR
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:CLR-B
RELEASE 5E18(1) and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that one or more software updates be cleared from the administrative module (AM) field update directory.

Warning: *Incorrect use of this message can result in the removal of needed files.*

2. FORMAT

UPD:CLR:BWM="a"[-"a"[-"a"...]];

3. EXPLANATION OF MESSAGE

a = Software update name. A list of 1 to 10 software update names may be specified, in the form BWMrr-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn. Valid value(s):

BWM	= Indicates an off-site originated update.
CFT	= Indicates an on-site originated update.
TMP	= Indicates an off-site originated update.
yy	= The last two digits of the year.
rr	= The release number [for example, 18 for 5E18(1)].
nnnn	= The sequence number identifying the software update.

Note: Double quotes (" ") are required.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted.

5. REFERENCES

Input Message(s):
UPD:OFC

Output Message(s):
UPD:CLR
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*

ID UPD:CSCANS-REPT
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests a report containing the current status of the active file receiving process from the Customer Service Computer Access Network System (CSCANS) interface.

2. FORMAT

UPD:CSCANS:REPORT;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted, and a UPD:CSCANS-REPT output message will follow.

RL = Retry later.

5. REFERENCES

Input Message(s):

UPD:CSCANS-STOP

UPD:INITPW

Output Message(s):

UPD:CSCANS-REPT

UPD:CSCANS-STOP

UPD:INITPW

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)

1960 (INSTALL BWM)

ID UPD:CSCANS-STOP
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that the download of software update files from the remote source be terminated. If file transmission has begun, a session-disconnect message is sent to the remote end to notify the Customer Service Computer Access Network System (CSCANS) of the termination.

2. FORMAT

UPD:CSCANS:STOP;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted, and a UPD:CSCANS-STOP output message will follow.

RL = Retry later.

5. REFERENCES

Input Message(s):

UPD:CSCANS-REPT

Output Message(s):

UPD:CSCANS

UPD:CSCANS-STOP

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)

1960 (INSTALL BWM)

ID UPD:DISPLAY-A
RELEASE 5E15 - 5E17(1)
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that information about administrative module (AM) software updates be displayed. The updates are selected on the basis of parameters which supply cumulative restrictions.

2. FORMAT

UPD:DISPLAY[:UPNM="a"][,STATUS=b][,BACKLOG][,SUM][,V];

3. EXPLANATION OF MESSAGE

BACKLOG = The BACKLOG option allows a user to request a summary report of previously applied software updates. Furthermore, the report will summarize software updates that no longer have the capability of BOLO.

SUM = A short summary of the last official, user, and temporary software updates and a list of active users.

V = A short version (verbose) of all updates on the switch.

a = Software update name.

b = Status of update or software update. Valid value(s):

OFC = Official.

TMP = Temporary.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the UPD:DISPLAY output message.

5. REFERENCES

Input Message(s):

UPD:APPLY-BYTER

UPD:APPLY-FILER

UPD:APPLY-FUNCR

UPD:BLDBOOT

UPD:OFC

Output Message(s):

UPD:DISPLAY

UPD:SYSERR

UPD:USRERR

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE

1960 INSTALL BWM

ID UPD:DISPLAY-B
RELEASE 5E18(1) and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that information about administrative module (AM) software updates be displayed. The updates are selected on the basis of parameters which supply cumulative restrictions.

2. FORMAT

UPD:DISPLAY[:UPNM="a"][,STATUS=b][,BACKLOG][,SUM][,V];

3. EXPLANATION OF MESSAGE

BACKLOG = The BACKLOG option allows a user to request a summary report of previously applied software updates. Furthermore, the report will summarize software updates that no longer have the capability of BOLO.

SUM = A short summary of the last official, user, and temporary software updates and a list of active users.

V = A short version (verbose) of all updates on the switch.

a = Software update name.

b = Status of update or software update. Valid value(s):

OFC = Official.

TMP = Temporary.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the UPD:DISPLAY output message.

5. REFERENCES

Input Message(s):

UPD:APPLY-BYTER

UPD:APPLY-FILER

UPD:APPLY-FUNCR

UPD:BLDBOOT

UPD:OFC

Output Message(s):

UPD:DISPLAY

UPD:SYSERR

UPD:USRERR

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE

1960 INSTALL BWM

ID UPD:DSPKGDEPEND
RELEASE 5E16(2) and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that when a call processing (CP) node is added (grown in) to a virtual switch, or there is inter-dependency between the 5ESS® software version and the administrative services module (ASM) software version, the CP node must be evaluated for the dependency.

A dependency check is used within the program update code during software update application to determine whether the ASM is at a prescribed minimum software update (SU) level. This will ensure that each CP node can communicate with the ASM in an intelligent distant reliable module (IDRM) type office.

2. FORMAT

UPD:DSPKGDEPEND:DATA,UPNM=a,[PKGDEPLIST=b],[UCL];

3. EXPLANATION OF MESSAGE

a = SU package name. The maximum length is 10 characters.

b = The file name which contains the following:
<software_package> <software_version> <hardware_target>

If no file name of pkgdeplist is provided with the "-f" option, the default file name will be "pkgdeplist" under the bwmname directory.

UCL = Unconditional command option. This is for the user to override checking ASM SU level.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. This is followed by
UPD:DSPKGDEPEND output message.

5. REFERENCES

Output Message(s):

UPD:DSPKGDEPEND

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:DUMPCORE-A
RELEASE 5E15 only
COMMAND GROUP SFTUTIL
APPLICATION 5

1. PURPOSE

To enable switching module (SM) or communication module processor (CMP) incore memory to be dumped to a file.

Format 1 is to be used to dump CMP memory to a file.

Format 2 is to be used to dump SM memory to a file.

Format 3 is to be used to dump SM memory to a file using a peripheral image address. This input message may be useful for problem resolution that involves examination of core memory. For example, if a range of memory in a certain SM is suspect, then this range of memory can be dumped to a file. Then the same range of memory in another SM of the same configuration can be dumped to a second file. Then *UNIX*¹ utilities can be used to compare to two files. Format 1 is for the CMP only. This input message requires that the primary or mate processor be specified since the primary and mate processors of the CMP function independently and they may or may not have the same core memory contents.

Format 2 is for the SM only and it does not support the primary or mate options because the mate module controller/time slot interchange (MCTSI) is continually updated [when in standby (STDBY) mode] with the contents of the active MCTSI. With the 'PADDR' option the user is requesting to dump a physical address in an SM. When the 'VADDR' option is given, the user is requesting a virtual address which will be internally mapped to the corresponding physical address in the requested SM.

Format 3 is for the SM only and does not support the mate option. This format is useful when the user wishes to dump SM memory based on a peripheral image address. This will get internally mapped to the corresponding physical address in the requested SM. The file that is created is a data file and can not be examined with tools or editors that expect American standard code for information interchange (ASCII) text input.

Warning: The amount of data that can be dumped is not restricted. The size of the output file will be the number of bytes that are specified after the L option. Thus all output files should only be placed in file systems that are designed to hold temporary files. Creating files in other file systems may interfere with other routine activities.

2. FORMAT

```
[1]    UPD:DUMPCORE:DATA,CMP=a,{PRIM|MATE}[ ,TARGET=c],ADDR=d. . .  
      . . . ,L=e,OUTFILE=f;  
[2]    UPD:DUMPCORE:DATA,SM=b,{PADDR=d|VADDR=d},L=e,OUTFILE=f;  
[3]    UPD:DUMPCORE:DATA,SM=b,PERF=c,PADDR=d,L=e,OUTFILE=f;
```

3. EXPLANATION OF MESSAGE

- a = CMP number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = SM number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

1. Registered trademark of X/Open Company, Ltd.

c = Targets. Valid value(s):

CMP
DDMA
DNUSCC
DNUSTMX
DSC3
DSP13K
DSP8K
DSPEVRC
GDSF
HDSU
HSAS
IDCUCCP
IDCULSI
IP3S
IP4F
IP4I
IP4IF
ISLU
ISLU2
ISTF
LDSU
LDSF
MSGH
ODMA
OIOP
PH2A
PH2G
PH3C
PH3S
PH4A
PH4G
PH4I
PHA1A
PI
PI2
PHV1C
PHV3C
PHV4C
RAF
SAS
SM
SM2K
SMPMH
SMPMLB
V3DACP
V4D13K
V4D8K
V4DACP
V4DEV1
V4DEV2
V4DEV3
V4DVSP
V4DISL

d = Address to start memory dump at.

e = Number of bytes to dump from core memory.

f = Full path name to the output file used to store the data dumped from core memory.

4. SYSTEM RESPONSE

PF = Printout follows. The message was accepted and the dump of incore memory has begun. This will be followed by a completion message when the dump successfully finishes.

5. REFERENCES

Output Message(s):
UPD:DUMPCORE
UPD:SYSERR
UPD:USRERR

Input Appendix(es):
APP:RANGES

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:DUMPCORE-B
RELEASE 5E16(1) only
COMMAND GROUP SFTUTIL
APPLICATION 5

1. PURPOSE

To enable switching module (SM) or communication module processor (CMP) incore memory to be dumped to a file.

Format 1 is to be used to dump CMP memory to a file.

Format 2 is to be used to dump SM memory to a file.

Format 3 is to be used to dump SM memory to a file using a peripheral image address.

This input message may be useful for problem resolution that involves examination of core memory. For example, if a range of memory in a certain SM is suspect, then this range of memory can be dumped to a file. Then the same range of memory in another SM of the same configuration can be dumped to a second file. Then *UNIX*¹ utilities can be used to compare to two files.

Format 1 is for the CMP only. This input message requires that the primary or mate processor be specified since the primary and mate processors of the CMP function independently and they may or may not have the same core memory contents.

Format 2 is for the SM only and it does not support the primary or mate options because the mate module controller/time slot interchange (MCTSI) is continually updated [when in standby (STDBY) mode] with the contents of the active MCTSI.

With the 'PADDR' option the user is requesting to dump a physical address in an SM. When the 'VADDR' option is given, the user is requesting a virtual address which will be internally mapped to the corresponding physical address in the requested SM.

Format 3 is for the SM only and does not support the mate option. This format is useful when the user wishes to dump SM memory based on a peripheral image address. This will get internally mapped to the corresponding physical address in the requested SM.

The file that is created is a data file and can not be examined with tools or editors that expect American standard code for information interchange (ASCII) text input.

Warning: *The amount of data that can be dumped is not restricted. The size of the output file will be the number of bytes that are specified after the L option. Thus all output files should only be placed in file systems that are designed to hold temporary files. Creating files in other file systems may interfere with other routine activities.*

2. FORMAT

[1]	UPD:DUMPCORE:DATA,CMP=a,{PRIM MATE}[,TARGET=c],ADDR=d. ,L=e,OUTFILE=f;
[2]	UPD:DUMPCORE:DATA,SM=b,{PADDR=d VADDR=d},L=e,OUTFILE=f;
[3]	UPD:DUMPCORE:DATA,SM=b,PERF=c,PADDR=d,L=e,OUTFILE=f;

1. UNIX is a Registered trademark of The Open Group in the United States and other countries.

3. EXPLANATION OF MESSAGE

- a = CMP number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = SM number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Targets. Valid value(s):
 - CMP
 - DDMA
 - DNUSCC
 - DNUSTMX
 - DSC3
 - DSP13K
 - DSP8K
 - DSPEVRC
 - GDSF
 - HDSU
 - HSAS
 - IDCUCCP
 - IDCULSI
 - IP22
 - IP3S
 - IP4F
 - IP4I
 - IP4IF
 - ISLU
 - ISLU2
 - ISTF
 - LDSU
 - LDSF
 - MH32
 - MHEIB
 - MHLB
 - MHPPC
 - MHPPCLB
 - MSGH
 - ODMA
 - OIOP
 - OIU24
 - PH2A
 - PH2G
 - PH22I
 - PH22S
 - PH3C
 - PH3S
 - PH4A
 - PH4G
 - PH4I
 - PHA1A
 - PHA2A
 - PHE2E
 - PI
 - PI2

PHV1C
PHV3C
PHV4C
PHV5C
RAF
SAS
SM
SM2K
V3DACP
V4D13K
V4D8K
V4DACP
V4DEV1R1
V4DEV1R2
V4DEV1R3
V4DVSP
V4DISL
V5D13K
V5D8K
V5DACP
V5DEV1R1
V5DEV1R2
V5DEV1R3
V5DVSP
V5DISL

- d = Address to start memory dump at.
e = Number of bytes to dump from core memory.
f = Full path name to the output file used to store the data dumped from core memory.

4. SYSTEM RESPONSE

- PF = Printout follows. The message was accepted and the dump of incore memory has begun. This will be followed by a completion message when the dump successfully finishes.

5. REFERENCES

Output Message(s):
UPD:DUMPCORE
UPD:SYSERR
UPD:USRERR

Input Appendix(es):
APP:RANGES

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:DUMPCORE-C
RELEASE 5E16(2) - 5E17(1)
COMMAND GROUP SFTUTIL
APPLICATION 5

1. PURPOSE

To enable switching module (SM) or communication module processor (CMP) incore memory to be dumped to a file.

Format 1 is to be used to dump CMP memory to a file.

Format 2 is to be used to dump SM memory to a file.

Format 3 is to be used to dump SM memory to a file using a peripheral image address.

This input message may be useful for problem resolution that involves examination of core memory. For example, if a range of memory in a certain SM is suspect, then this range of memory can be dumped to a file. Then the same range of memory in another SM of the same configuration can be dumped to a second file. Then *UNIX*¹ utilities can be used to compare to two files.

Format 1 is for the CMP only. This input message requires that the primary or mate processor be specified since the primary and mate processors of the CMP function independently and they may or may not have the same core memory contents.

Format 2 is for the SM only and it does not support the primary or mate options because the mate module controller/time slot interchange (MCTSI) is continually updated [when in standby (STDBY) mode] with the contents of the active MCTSI.

With the 'PADDR' option the user is requesting to dump a physical address in an SM. When the 'VADDR' option is given, the user is requesting a virtual address which will be internally mapped to the corresponding physical address in the requested SM.

Format 3 is for the SM only and does not support the mate option. This format is useful when the user wishes to dump SM memory based on a peripheral image address. This will get internally mapped to the corresponding physical address in the requested SM.

The file that is created is a data file and can not be examined with tools or editors that expect American standard code for information interchange (ASCII) text input.

Warning: *The amount of data that can be dumped is not restricted. The size of the output file will be the number of bytes that are specified after the L option. Thus all output files should only be placed in file systems that are designed to hold temporary files. Creating files in other file systems may interfere with other routine activities.*

2. FORMAT

[1]	UPD:DUMPCORE:DATA,CMP=a,{PRIM MATE}[,TARGET=c],ADDR=d. ,L=e,OUTFILE=f;
[2]	UPD:DUMPCORE:DATA,SM=b,{PADDR=d VADDR=d},L=e,OUTFILE=f;
[3]	UPD:DUMPCORE:DATA,SM=b,PERF=c,PADDR=d,L=e,OUTFILE=f;

1. UNIX is a Registered trademark of The Open Group in the United States and other countries.

3. EXPLANATION OF MESSAGE

- a = CMP number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = SM number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Targets. Valid value(s):
 - CMP
 - DDMA
 - DNUSCC
 - DNUSTMX
 - DSC3
 - DSP13K
 - DSP8K
 - DSPEVRC
 - GDSF
 - HDSU
 - HSAS
 - IDCUCCP
 - IDCULSI
 - IP22
 - IP3S
 - IP4F
 - IP4I
 - IP4IF
 - ISLU
 - ISLU2
 - ISTF
 - LDSU
 - LDSF
 - MH32
 - MHEIB
 - MHLB
 - MHPPC
 - MHPPCLB
 - MSGH
 - ODMA
 - OIOP
 - OIU24
 - OIUIP
 - PH2A
 - PH2G
 - PH22I
 - PH22S
 - PH3C
 - PH3S
 - PH4A
 - PH4G
 - PH4I
 - PHA1A
 - PHA2A
 - PHE2E
 - PI

PI2
PHV1C
PHV3C
PHV4C
PHV5C
RAF
SAS
SM
SM2K
SM2KFX
V3DACP
V4D13K
V4D8K
V4DACP
V4DEV1R1
V4DEV1R2
V4DEV1R3
V4DVSP
V4DISL
V5D13K
V5D8K
V5DACP
V5DEV1R1
V5DEV1R2
V5DEV1R3
V5DVSP
V5DISL

- d = Address to start memory dump at.
- e = Number of bytes to dump from core memory.
- f = Full path name to the output file used to store the data dumped from core memory.

4. SYSTEM RESPONSE

- PF = Printout follows. The message was accepted and the dump of incore memory has begun. This will be followed by a completion message when the dump successfully finishes.

5. REFERENCES

Output Message(s):
UPD:DUMPCORE
UPD:SYSERR
UPD:USRERR

Input Appendix(es):
APP:RANGES

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:DUMPCORE-D
RELEASE 5E18(1) - 5E19(1)
COMMAND GROUP SFTUTIL
APPLICATION 5

1. PURPOSE

To enable switching module (SM) or communication module processor (CMP) incore memory to be dumped to a file.

Format 1 is to be used to dump CMP memory to a file.

Format 2 is to be used to dump SM memory to a file.

Format 3 is to be used to dump SM memory to a file using a peripheral image address.

This input message may be useful for problem resolution that involves examination of core memory. For example, if a range of memory in a certain SM is suspect, then this range of memory can be dumped to a file. Then the same range of memory in another SM of the same configuration can be dumped to a second file. Then *UNIX*¹ utilities can be used to compare to two files.

Format 1 is for the CMP only. This input message requires that the primary or mate processor be specified since the primary and mate processors of the CMP function independently and they may or may not have the same core memory contents.

Format 2 is for the SM only and it does not support the primary or mate options because the mate module controller/time slot interchange (MCTSI) is continually updated [when in standby (STDBY) mode] with the contents of the active MCTSI.

With the 'PADDR' option the user is requesting to dump a physical address in an SM. When the 'VADDR' option is given, the user is requesting a virtual address which will be internally mapped to the corresponding physical address in the requested SM.

Format 3 is for the SM only and does not support the mate option. This format is useful when the user wishes to dump SM memory based on a peripheral image address. This will get internally mapped to the corresponding physical address in the requested SM.

The file that is created is a data file and can not be examined with tools or editors that expect American standard code for information interchange (ASCII) text input.

Warning: *The amount of data that can be dumped is not restricted. The size of the output file will be the number of bytes that are specified after the L option. Thus all output files should only be placed in file systems that are designed to hold temporary files. Creating files in other file systems may interfere with other routine activities.*

2. FORMAT

[1]	UPD:DUMPCORE:DATA,CMP=a,{PRIM MATE}[,TARGET=c],ADDR=d. ,L=e,OUTFILE=f;
[2]	UPD:DUMPCORE:DATA,SM=b,{PADDR=d VADDR=d},L=e,OUTFILE=f;
[3]	UPD:DUMPCORE:DATA,SM=b,PERF=c,PADDR=d,L=e,OUTFILE=f;

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3. EXPLANATION OF MESSAGE

- a = CMP number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = SM number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Targets. Valid value(s):
 - CMP
 - DDMA
 - DNUSCC
 - DNUSTMX
 - DSC3
 - DSP13K
 - DSP8K
 - DSPEVRC
 - GDSF
 - HDSU
 - HSAS
 - IDCUCCP
 - IDCULSI
 - IP22
 - IP3S
 - IP4F
 - IP4I
 - IP4IF
 - ISLU
 - ISLU2
 - ISTF
 - LDSU
 - LDSF
 - MH32
 - MHEIB
 - MHLB
 - MHPPC
 - MHPPCLB
 - MSGH
 - ODMA
 - OIOP
 - OIU24
 - OIUIP
 - PH2A
 - PH2G
 - PH22I
 - PH22S
 - PH3C
 - PH3S
 - PH4A
 - PH4G
 - PH4I
 - PHA1A
 - PHA2A
 - PHE2E
 - PI

PI2
PHV1C
PHV3C
PHV4C
PHV5C
PHV6C
RAF
SAS
SM
SM2K
SM2KFX
V3DACP
V4D13K
V4D8K
V4DACP
V4DEV1R1
V4DEV1R2
V4DEV1R3
V4DVSP
V4DISL
V5D13K
V5D8K
V5DEV1R1
V5DEV1R2
V5DEV1R3
V5DVSP
V5DISL
V6D13K

- d = Address to start memory dump at.
- e = Number of bytes to dump from core memory.
- f = Full path name to the output file used to store the data dumped from core memory.

4. SYSTEM RESPONSE

- PF = Printout follows. The message was accepted and the dump of incore memory has begun. This will be followed by a completion message when the dump successfully finishes.

5. REFERENCES

Output Message(s):
UPD:DUMPCORE
UPD:SYSERR
UPD:USRERR

Input Appendix(es):
APP:RANGES

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:DUMPCORE-E
RELEASE 5E20(1) and later
COMMAND GROUP SFTUTIL
APPLICATION 5

1. PURPOSE

To enable switching module (SM) incore memory to be dumped to a file.

Format 1 is to be used to dump SM memory to a file.

Format 2 is to be used to dump SM memory to a file using a peripheral image address.

This input message may be useful for problem resolution that involves examination of core memory. For example, if a range of memory in a certain SM is suspect, then this range of memory can be dumped to a file. Then the same range of memory in another SM of the same configuration can be dumped to a second file. Then *UNIX*¹ utilities can be used to compare to two files.

Format 1 is for the SM only and it does not support the primary or mate options because the mate module controller/time slot interchange (MCTSI) is continually updated [when in standby (STDBY) mode] with the contents of the active MCTSI.

With the 'PADDR' option the user is requesting to dump a physical address in an SM. When the 'VADDR' option is given, the user is requesting a virtual address which will be internally mapped to the corresponding physical address in the requested SM.

Format 2 is for the SM only and does not support the mate option. This format is useful when the user wishes to dump SM memory based on a peripheral image address. This will get internally mapped to the corresponding physical address in the requested SM.

The file that is created is a data file and can not be examined with tools or editors that expect American standard code for information interchange (ASCII) text input.

Warning: The amount of data that can be dumped is not restricted. The size of the output file will be the number of bytes that are specified after the L option. Thus all output files should only be placed in file systems that are designed to hold temporary files. Creating files in other file systems may interfere with other routine activities.

2. FORMAT

[1] UPD:DUMPCORE:DATA,SM=a,{PADDR=c|VADDR=c},L=d,OUTFILE=e;

[2] UPD:DUMPCORE:DATA,SM=a,PERF=b,PADDR=c,L=d,OUTFILE=e;

3. EXPLANATION OF MESSAGE

- a = SM number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Targets. Refer to the APP:TARGETS appendix in the Appendixes section of the Input Messages manual.
- c = Address to start memory dump at.
- d = Number of bytes to dump from core memory.
- e = Full path name to the output file used to store the data dumped from core memory.

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4. SYSTEM RESPONSE

PF = Printout follows. The message was accepted and the dump of incore memory has begun. This will be followed by a completion message when the dump successfully finishes.

5. REFERENCES

Output Message(s):
UPD:DUMPCORE

Input Appendix(es):
APP:RANGES
APP:TARGETS

ID UPD:EXPAND
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that the software update expansion process that takes place automatically during the download of a compressed software update (SU) be manually stopped (STOP), or requests that any compressed files in the software update specified (UPNM=a) be expanded to their original size so that software update application may begin immediately.

Note: the manual expansion is needed only if expansion was previously inhibited (through use of the STOP option), or if the expansion for the SU was previously aborted.

2. FORMAT

UPD:EXPAND:{UPNM="a" | STOP};

3. EXPLANATION OF MESSAGE

a = The software update name. All files in the software update package specified will be expanded to the original file size so that software update application may follow.

4. SYSTEM RESPONSE

OK = Good. The request has been accepted. Followed by a UPD:EXPAND output message.

5. REFERENCES

Input Message(s):

IN:REMOTE-REPT
UPD:CSCANS-REPT

Output Message(s):

IN:REMOTE
IN:REMOTE-ERROR
IN:REMOTE-INIT
IN:REMOTE-START
IN:REMOTE-STOP
UPD:EXPAND
UPD:CSCANS-REPT

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)
1960 (INSTALL BWM)

ID UPD:FLASH-DFC
RELEASE 5E15 and later
COMMAND GROUP N/A
APPLICATION 5,3B

1. PURPOSE

Requests a download of a pumpcode file into a small computer system interface (SCSI) device file controller's (DFC) non-volatile FLASH memory.

The input message can be used to request a download in three different ways.

- Request the DFC driver automatically perform a download using a disk file constructed from fields in the DFC UCB record.
- Request the DFC driver automatically perform a download using a disk file constructed from version information stored in HA memory.
- Request that a user specified file be downloaded.

The input message can also be used to check the integrity of a pumpcode file that is stored as a disk file.

Note: When the downloading is to be done automatically by the DFC driver; the driver will use the information stored in the DFC's UCB record to build the pumpcode file name. The file specified in the UCB record must exist in the directory /dfc, and the file name derived from the UCB record has the format 'xyz', where 'x' is the 4-alphanumeric characters packcode value (that is, u580) stored in the packcode field of the UCB, 'y' is the 1-digit value stored in the version field of the specified DFC's UCB, and 'z' is the 1-digit value stored in the issue field of the UCB. An example of a typical pumpcode file name is u58090; the pumpcode version implied by this filename is 9, the pumpcode issue is 0, and the packcode number is u580.

2. FORMAT

[1] UPD:FLASH;DFC a;
[2] UPD:FLASH;DFC a:DATA,FN= "b"[,CHECKSUM];

3. EXPLANATION OF MESSAGE

CHECKSUM = When this option is used, the integrity of the pumpcode contained in the specified file will be verified; no pumpcode downloading will occur.

a = Member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

b = Full pathname that specifies the pumpcode file to be downloaded into SCSI DFC or to be checked for the integrity of its data.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a UPD:FLASH-DFC output message.

5. REFERENCES

Output Message(s):
UPD:FLASH-DFC

Input Appendix(es):
APP:RANGES

MCC Display Page(s):
DISK FILE SYSTEM ACCESS

ID UPD:FLASH
RELEASE 5E15 and later
COMMAND GROUP N/A
APPLICATION 5,3B

1. PURPOSE

Requests an update of flash random access memory (RAM) on a specified peripheral controller (PC). Flash is a device designed to be programmed in a system with a standard 5V or 12V supply required for write or erase operations.

2. FORMAT

UPD:FLASH:a=b;

3. EXPLANATION OF MESSAGE

a = Member name. Valid value(s):

HSDC
MTTYC
SCSDC
SDLC
TTYC

b = Member number (0-255).

4. SYSTEM RESPONSE

?E = Invalid verb (system expecting UPD), missing or invalid keyword or data.

?I = Invalid data, missing data, or extra key word in the first, second, or third parameter or data blocks.

NG = No good. Cannot enable messages, access equipment configuration database (ECD), or PC is in a wrong state to process the input message. PC must be in the out-of-service (OOS) state, and its peripheral interface controller (IOP) must be in the active (ACT) state.

PF = Printout follows. Followed by a UPD-FLASH output message.

5. REFERENCES

Output Message(s):
UPD:FLASH

ID UPD:FTRC
RELEASE 5E15 and later
COMMAND GROUP SFTUTIL
APPLICATION 5,3B

1. PURPOSE

Requests that function information from a process file's symbol table be displayed for one to twenty five address or function entries.

The output contains the name of the file in which the function resides, the name of the function, its transfer vector address and the virtual address and size of the function. If a function does not contain a transfer vector, the transfer vector field in the output is zero. If a process file has been updated by a function replacement, new addresses for the updated functions will be printed.

Format 1 converts symbolic function names to physical addresses.

Format 2 converts physical addresses to symbolic function names.

Format 3 generates a symbolic function trace based on the stack trace addresses logged from a system integrity event.

Please note that the stack trace addresses are retrieved from the daylog file and as a result a small delay may precede the output.

2. FORMAT

```
[1]    UPD:FTRC:{FN="a" | SM="b"}, FCN="c"["-c"]..., TMP=d;  
[2]    UPD:FTRC:{FN="a" | SM="b"}, ADDR=h'e[-h'e]..., TMP=d;  
[3]    UPD:FTRC:{SM="b" | ENV="f"}, EVENT=g, TMP=d;
```

3. EXPLANATION OF MESSAGE

- a = Full path name of the object file, enclosed in double quotes. An SM filename may not be used as a valid value for this variable. This variable can not be specified if either the 'SM' or 'ENV' parameter is specified.
- b = Number of the switching module (SM) if applicable. This variable can not be specified if either the 'FN' or 'ENV' parameter is specified.
- c = Name of functions within the object file. A maximum of 25 function names can be specified but must be enclosed in double quotes.
- d = If 'd' = 'y', indicates that the object file to be used for the conversion has a temporary SU applied to it. This option is supported only for the SM and OKP object files. If 'y' is not specified, 'd' = 'n' is implied.
- e = Physical address within a function's text space in the object file. Can specify a maximum of 25 hexadecimal addresses.
- f = Environment that the system integrity event occurred in, enclosed in double quotes. The environment should be exactly the same as the ENV field in the system integrity output report. Either upper or lower case letters can be used. Not specified if the SM parameter is specified. The ENV parameter should not be used for OSDSM type system integrity events because the OSDSM type system integrity event requires the use of the SM parameter.
- g = System integrity event number.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the UPD:FTRC output message.

5. REFERENCES

Input Message(s):

UPD:APPLY-FUNCR

Output Message(s):

UPD:FTRC

ID UPD:G-APPLPROC
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests execution of the application process, APPLPROC, (/prc/supr/applproc) during a retrofit or update. The application process will invoke specific input messages and retrofit tools defined for APPLPROC through the argument specified.

2. FORMAT

UPD:GEN:APPLPROC[,ARG="a"];

3. EXPLANATION OF MESSAGE

a = An argument string that is to be passed to the application process.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.

PF = Printout follows. Followed by UPD:GEN-APPL output message.

5. REFERENCES

Input Message(s):

OP:G-READLOG
UPD:G-BACKOUT
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE

Output Message(s):

OP:GEN-READLOG
UPD:GEN-APPL
UPD:GEN-BACKOUT
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-24x *Software Release Retrofit*

235-105-34x *Software Release Update*

ID UPD:G-BACKOUT
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that the administrative module (AM) be prepared for booting from the old software release if it is necessary to back out of the new software release. This message performs an AM off-line boot by default unless no AM off-line boot is requested.

2. FORMAT

UPD:GEN:BACKOUT[,NOFLBOOT][:UCL];

3. EXPLANATION OF MESSAGE

NOFLBOOT = Do not execute an AM off-line boot.

UCL = Execute unconditionally; context checks are ignored.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.

PF = Printout follows. Followed by UPD:GEN-BACKOUT output message.

5. REFERENCES

Input Message(s):

OP:G-READLOG
STOP:GEN
STP:GEN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE

Output Message(s):

OP:GEN-READLOG
STOP:GEN
STP:GEN
UPD:GEN-BACKOUT
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*

MCC Display Page(s):
116 (MISCELLANEOUS)
124 (RETROFIT)

ID UPD:G-BEGIN
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests the start of the retrofit cycle. Marks the retrofit in progress indicator on the Master Control Center (MCC) MISCELLANEOUS page (116) and marks the MISC indicator in the status summary area.

2. FORMAT

UPD:GEN:BEGIN,{RETRO|UPDATE|LTG}[:UCL];

3. EXPLANATION OF MESSAGE

LTG = Select large terminal growth type of software release transition.
RETRO = Select retrofit type of software release transition.
UCL = Execute unconditionally; checks for correct sequence of input messages are ignored.
UPDATE = Select software release update type of software release transition.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.
PF = Printout follows. Message received and the UPD:GEN-BEGIN output message will follow.

5. REFERENCES

Input Message(s):
UPD:G-END

Output Message(s):
UPD:GEN-BEGIN
UPD:GEN-END

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*

MCC Display Page(s):
116 (MISCELLANEOUS)

ID UPD:G-COMMIT
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests commitment to the new switch software release by duplexing the disks and completes the propagation of the new software release into the system after the soak period.

2. FORMAT

UPD:GEN,COMMIT[:UCL];

3. EXPLANATION OF MESSAGE

UCL = Execute the message unconditionally; context checks are ignored.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.

PF = Printout follows. Followed by UPD:GEN-COMMIT output message.

5. REFERENCES

Input Message(s):

OP:G-READLOG
STOP:GEN
UPD:G-BACKOUT
UPD:G-CONTINUE
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE

Output Message(s):

OP:GEN-READLOG
STOP:GEN
UPD:GEN-BACKOUT
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*

ID UPD:G-CONTINUE
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that the continuation of a central processor or administrative module update process that requested a manual action using a UPD:G-[unit] output message.

This message acknowledges that the action requested has been completed. It also continues the execution of a system update process that has reported (using a UPD:G-[unit] output message) that it has stopped. The error code from the "stopped" message should be examined and any necessary corrective action taken before entering this input message.

2. FORMAT

UPD:GEN:CONTINUE;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.

PF = Printout follows. Followed by UPD:G-CONTINUE output message.

5. REFERENCES

Input Message(s):

UPD:G-BACKOUT
UPD:G-COMMIT
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE

Output Message(s):

UPD:GEN-BACKOUT
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE

ID UPD:G-END
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests the completion of the retrofit cycle. Clears the retrofit indicator on the Master Control Center (MCC) MISCELLANEOUS display page and the MISC lit on the status summary page.

2. FORMAT

UPD:GEN:END[:UCL];

3. EXPLANATION OF MESSAGE

UCL = Execute unconditionally; ignore checks made for correct sequence of retrofit input messages.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.

PF = Printout follows. Message received and printout will follow.

5. REFERENCES

Input Message(s):

UPD:G-BEGIN

Output Message(s):

UPD:GEN-BEGIN

UPD:GEN-END

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-24x *Software Release Retrofit*

MCC Display Page(s):

116 (MISCELLANEOUS)

ID UPD:GENP
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

To manually control the generation of update files (ufiles) and product files (pfiles) generated by the UPgenpcc process. If UPD:GENP:STOP is used, all files generated up to this point will remain. Pfile and ufile generation will continue with the UPD:GENP:RESUME input message. If UPD:GENP:QUIT is used, all files that have been generated so far will be deleted unconditionally.

2. FORMAT

UPD:GENP:{STOP|RESUME|QUIT};

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a UPD output message.
RL = Retry later.

5. REFERENCES

Output Message(s):

UPD:GENPCC
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)
1960 (INSTALL BWM)

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:G-ENTER
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that the new software release data be entered into the administrative module. This message is the first step of the system update procedure used to introduce a new software release into the system. Up to three different sequences of load disk from tape (LDFT) formatted tapes can be used to update a disk pair. Different disk layouts on each sequence of tapes will be accepted only for the offline disk method and only if the partition affected by the different disk layout was not updated in a previous sequence.

Warning: *During partial updates, the volume table of contents (VTOC) structure for all partitions that are not updated must be identical to the disk VTOC on all tape sequences. If they are not identical, then the starting location of some of the partitions will not match their actual starting location on the disk.*

2. FORMAT

```
UPD:GEN:ENTER[:UCL],{BKPRT|OFLDISK[=a][,NOBKUPD]},SRC="b",  
{DEST="c"|DEST="c"["-c"]...}[,SEQOPT=d|,SEQOPT=d[-d...]];
```

3. EXPLANATION OF MESSAGE

BKPRT = Backup partition method specification. This method requires that the disk layout in the new software release must be the same (such as, the VTOC partition in the new software release must be identical to the VTOC in the old software release) and all the disk partitions to be updated must have a corresponding backup partition (such as, like root/broot). The set of unused backup partitions will be updated (such as, if root is being used, broot will be updated).

NOBKUPD = Do not update backup partitions during off-line disk update procedures.

OFLDISK = Off-line disk method specification. This method requires that each disk pair to be updated must be duplex (such as, both disks active). One of the disks will be removed from service and the new software release data will be copied to this disk. The disk will also be marked off-line.

UCL = Execute unconditionally. If this option is not specified, the system update log file must be empty or removed. (The log file is in "/etc/log/suprlog". Refer to OP:G-READLOG).

a = Unit number of the disk file controller (DFC). Used to determine which moving head disk (MHD) unit(s) will be taken off-line (for the off-line disk method). If omitted, DFC 1 will be selected.

b = Special device file name that specifies the input magnetic tape. The name of the tape unit is of the form /dev/mtnn or mt?, where nn is a two-digit hexadecimal number and ? is the MTC controller number.

c = Special device file name that specifies the volume table of contents (VTOC) for the disk to be updated. Up to ten destinations may be specified. The file name (full pathname) cannot be greater than 40 characters long. Refer to the ECD/SG manual.

d = Tape sequence options that are to be used for each destination that was specified. Valid value(s):

DBL = update a disk using a double sequence of tapes
SGL = update a disk using a single sequence of tapes
TPL = update a disk using a triple sequence of tapes

If a sequence option is not specified at all (the SEQOPT keyword is not used on the input message line), the default values are used (double sequence for the bootdisk, single sequence for non-bootdisks). If default tape sequence options are not desired for all destinations, then all the tape sequence options must be specified (even the tape sequences using default values). If tape sequence options are specified, the number of specified tape sequence options must equal the number of specified destinations. The maximum number of tape sequence options allowed on the enter input message line is ten.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.
PF = Printout follows. Followed by UPD:G-ENTER output message.

5. REFERENCES

Input Message(s):

OP:G-READLOG
STOP:GEN
STP:GEN
UPD:G-BACKOUT
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-PROCEED
UPD:G-RESTORE

Output Message(s):

OP:GEN-READLOG
STOP:GEN
STP:GEN
UPD:GEN-BACKOUT
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*
235-600-30x *ECD/SG*

MCC Display Page(s):

116 (MISCELLANEOUS)
124 (RETROFIT)

ID UPD:G-PROCEED
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that the administrative module (AM) be prepared for booting from the new software release. This message performs an AM off-line boot by default unless no AM off-line boot is requested.

Note: This message must be executed after the UPD:G-ENTER input message.

2. FORMAT

UPD:GEN:PROCEED[,NOFLBOOT][:UCL];

3. EXPLANATION OF MESSAGE

NOFLBOOT = Do not execute an AM off-line boot.

UCL = Execute unconditionally; ignore context checks. If this option is specified, it will be ignored unless the previous step (entering UPD:G-ENTER) was not completed successfully.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.

PF = Printout follows. Followed by UPD:GEN-PROCEED output message.

5. REFERENCES

Input Message(s):

OP:G-READLOG
STOP:GEN
STP:GEN
UPD:G-BACKOUT
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-ENTER
UPD:G-RESTORE

Output Message(s):

OP:GEN-READLOG
STOP:GEN
STP:GEN
UPD:GEN-BACKOUT
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*

235-105-44x *Large Terminal Growth*

MCC Display Page(s):

116 (MISCELLANEOUS)

124 (RETROFIT)

ID UPD:G-RESTORE
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that the old software release be restored by removing the new software release from the administrative module (AM).

This message should be started after the UPD:G-ENTER and UPD:G-PROCEED messages have completed successfully. If either message did not complete successfully, then the unconditional option should be used. Using this message without the UCL option will produce an error even after a successful PROCEED. Only unconditional restores are valid. If the new software release was introduced using the backup partition method (UPD:G-ENTER), the disk to be updated and its mate must be active, even if only one of them was updated. For example, if moving head disk 0 (MHD0) was updated, then moving head disk 1 (MHD1) should be restored before this message is executed.

2. FORMAT

UPD:GEN:RESTORE[:UCL];

3. EXPLANATION OF MESSAGE

UCL = Execute unconditionally; ignore context checks. If this option is specified, it will be ignored if the previous step (entering UPD:G-PROCEED) was completed successfully.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.

PF = Printout follows. Followed by UPD:GEN-RESTORE output message.

5. REFERENCES

Input Message(s):

OP:G-READLOG
STOP:GEN
STP:GEN
UPD:G-BACKOUT
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-ENTER
UPD:G-PROCEED

Output Message(s):

OP:GEN-READLOG
STOP:GEN
STP:GEN
UPD:GEN-BACKOUT
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE

ID UPD:G-SMBKOUT
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that switching modules (SMs) be switched from module controller/time-slot interchange (MCTSI) side 1 to side 0 and perform an SM retrofit initialization during a retrofit or software release update.

2. FORMAT

UPD:GEN:SMBKOUT,SM=a[&&b][,LSM][,HSM][,RSM][,ORM][,TRM][:UCL];

3. EXPLANATION OF MESSAGE

HSM = Select modules of the type host switching module.
LSM = Select modules of the type local switching module.
ORM = Select modules of the type optical remote switching module.
RSM = Select modules of the type remote switching module.
TRM = Select modules of the type two-mile optical remote switching module.
UCL = Execute unconditionally; checks for existence of the APPLHOOK log file created by the UPD:G-BEGIN input message, the retrofit indicator on the Master Control Center (MCC) page 116, and that MCTSI side 0 is offline pumped are ignored.
a = SM number or lower limit of a range of SM numbers.
b = Upper limit of the range of SM numbers to be inhibited.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.
OK = Good.

5. REFERENCES

Input Message(s):

UPD:G-BEGIN
UPD:G-END
UPD:G-SMSWITCH
UPD:G-SWITCHBCK
UPD:G-SWITCHFWD

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*

MCC Display Page(s):

116 (MISCELLANEOUS)

ID UPD:G-SMSWITCH
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that switching modules (SMs) be switched from module controller/time-slot interchange (MCTSI) side 0 to side 1 and perform an SM retrofit initialization during a retrofit or update.

2. FORMAT

UPD:GEN:SMSWITCH,SM=a[&&b][,LSM][,HSM][,RSM][,ORM][,TRM][:UCL];

3. EXPLANATION OF MESSAGE

HSM = Select modules of the type host switching module.
LSM = Select modules of the type local switching module.
ORM = Select modules of the type optical remote switching module.
RSM = Select modules of the type remote switching module.
TRM = Select modules of the type two mile optically remote switching module.
UCL = Execute unconditionally. The following checks are ignored: checks for existence of the APPLHOOK log file created by the UPD:G-BEGIN input message, checks of the retrofit indicator on the Master Control Center (MCC) MISCELLANEOUS page, checks that SMs are on MCTSI side 0, and checks that MCTSI side 1 is offline pumped.
a = SM number or lower limit of a range of SM numbers.
b = Upper limit of the range of SM numbers.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.
OK = Good. Request accepted.

5. REFERENCES

Input Message(s):

UPD:G-BEGIN
UPD:G-END
UPD:G-SMBKOUT
UPD:G-SWITCHBCK
UPD:G-SWITCHFWD

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*

MCC Display Page(s):

116 (MISCELLANEOUS)

ID UPD:G-SWITCHBCK
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests a retrofit switch and initialization on switching modules (SMs) that were switched by the UPD:G-SWITCHFWD input message during a retrofit or update.

2. FORMAT

UPD:GEN:SWITCHBCK[:UCL];

3. EXPLANATION OF MESSAGE

UCL = Execute unconditionally; checks for existence of the APPLHOOK log file created by the UPD:G-BEGIN input message and the retrofit indicator on the Master Control Center (MCC) MISCELLANEOUS page are ignored.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.
OK = Good. Request accepted.

5. REFERENCES

Input Message(s):

UPD:G-BEGIN
UPD:G-END
UPD:G-SMBKOUT
UPD:G-SMSWITCH
UPD:G-SWITCHFWD

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*

MCC Display Page(s):

116 (MISCELLANEOUS)

ID UPD:G-SWITCHFWD
RELEASE 5E15 and later
COMMAND GROUP SFTMG
APPLICATION 5

1. PURPOSE

Requests a retrofit switch and initialization of switching modules (SMs) that are offline pumped and forced during a retrofit or update.

2. FORMAT

UPD:GEN:SWITCHFWD[:UCL];

3. EXPLANATION OF MESSAGE

UCL = Execute unconditionally. The following checks are ignored: checks for existence of the APPLHOOK log file created by the UPD:G-BEGIN input message, checks of the retrofit indicator on the Master Control Center (MCC) MISCELLANEOUS page, and checks that the retrofit PROCEED stage has completed successfully.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.

OK = Good. Request completed.

5. REFERENCES

Input Message(s):

UPD:G-BEGIN

UPD:G-END

UPD:G-SMBKOUT

UPD:G-SMSWITCH

UPD:G-SWITCHBCK

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-24x *Software Release Retrofit*

235-105-34x *Software Release Update*

MCC Display Page(s):

116 (MISCELLANEOUS)

ID UPD:G-TSM
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests the collection and logging of current out-of-service (OOS) trunks and their statuses during a software release transition (retrofit, update, or large terminal growth).

2. FORMAT

UPD:GEN:TSM,{OLD|NEW|RMV}[:UCL];

3. EXPLANATION OF MESSAGE

NEW = Gather trunk OOS data on destination/new software release.
OLD = Gather trunk OOS data on source/old software release.
RMV = Remove trunks from service that were previously OOS, but were in service after the transition.
UCL = Execute unconditionally. This will overwrite existing port_OOS files.

4. SYSTEM RESPONSE

NG = No good. Trunk status mapping (TSM) process not initiated.
PF = Printout follows. Message was received and the UPD:GEN-TSM output message will follow.

5. REFERENCES

Output Message(s):
UPD:GEN-TSM

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth Procedures*

MCC Display Page(s):
124 (RETROFIT)

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:HSCHK-A
RELEASE 5E15 only
COMMAND GROUP FHADM
APPLICATION 5

1. PURPOSE

To verify the integrity of the disk and core images for hash sum protected products.

Format 1 is used to perform hash sum checking on ALL of the hashsum protected products, a specific switching module (SM), or a specific target [such as, SM, integrated services line unit (ISLU), and so forth].

Format 2 is used to perform hash sum checking on a specific text file and it's associated hash sum file.

Format 3 is used to perform hash sum checking on a specific communications module processor (CMP).

This check is scheduled by cron to run daily on all text [not office-dependent data (ODD) products in the switch that have associated hash sum files. There are two major checks that are done. First the disk image is verified by calculating the hash sums over the entire image and comparing them with the sums stored in the associated hash sum files. The second check is to compare (not calculate) the disk hash sums with the core hash sums. These two checks, coupled with the routine incore hash sum checking, provide a comprehensive audit to guarantee integrity of the hash sum protected products.

This input message is provided so that hash sum checking can be invoked manually. There are several different options that are provided to narrow the focus of the check to a specific SM or CMP, a specific target (such as, ISLU), a particular configuration, or a particular file.

During routine (scheduled from cron) hash sum verification, the only messages that are seen are the beginning message, and the completion message. However, if an error is found, additional messages will provide information on the error(s) that were found. The hash sum check is more verbose if it is being run in response to the input message. In this case it will report when it is beginning the disk hash sum check for each specified target.

Regardless of how the audit is requested (manually or routinely), disk hash sum errors are reported with a ROP message, a major alarm, and the switching module processor (SMP)/ CMP FILE indicator on MCC Display Page 116 will read HASHERR.

When this input message is run with only the ALL option and it does not find any errors, it will reset MCC Display Page 116 to normal.

Warning: In the event that hash sum mismatches are found, corrective action should be taken immediately to prevent potential service impacting problems. Detailed procedures for correcting hash sum error problems are given in the Corrective Maintenance Manual. However, these should only be performed by trained and qualified personnel.

2. FORMAT

```
[1]    UPD:HSCHK:{SM=b|TARGET=c|ALL}[ ,OUTFILE=f|REPT][ ,DISK|CORE];  
[2]    UPD:HSCHK:FN=d,DF=e,TARGET=c[,OUTFILE=f];  
[3]    UPD:HSCHK:CMP=a,{PRIM|MATE}[ ,OUTFILE=f][ ,DISK|CORE];
```

3. EXPLANATION OF MESSAGE

ALL = Run the audit on all of the above targets,

CORE = If the CORE option is specified, then only incore hash sum checking is performed. The default is to do both disk and core hash sum checking.

- DISK = If the DISK option is specified, then only disk hash sum checking is performed. The default is to do both disk and core hash sum checking.
- REPT = The REPT option allows a user to request a summary report of any incore hash sum mismatches that occurred from a previous run of the audit. If the REPT option is specified, then no hash sum checking is performed. The only action that is performed is to look at the SM(s)/CMP(s) that mismatched and report the targets where errors were found. This is especially useful to quickly determine which targets encountered problems in a given SM. For example, if SM 3 is showing a D/C HASH status (on MCC Display Page 1800 or MCC Display pages 141-144), the hash sum mismatch could have occurred in the SM text file (IM.out) or in any of the peripherals that are supported in that configuration (such as, LDSU, RAF, and so forth). The REPT option will report all of the targets that had hash sum mismatches.
- a = CMP number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = SM number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Valid value(s):
- CMP
 - DDMA
 - DNUSCC
 - DNUSTMX
 - DSC3
 - DSP13K
 - DSP8K
 - DSPEVRC
 - GDSF
 - HDSU
 - HSAS
 - IDCUCCP
 - IDCUDLP
 - IDCULSI
 - IP3S
 - IP4F
 - IP4I
 - IP4IF
 - ISLU
 - ISLU2
 - ISTF
 - LDSU
 - LDSF
 - MSGH
 - ODMA
 - OIOP
 - PH2A
 - PH2G
 - PH3C
 - PH3S
 - PH4A
 - PH4G
 - PH4I
 - PHA1A
 - PI
 - PI2
 - PHV1C
 - PHV3C
 - PHV4C

RAF
SAS
SM
SM2K
SMPMH
SMPMLB
V3DACP
V4D13K
V4D8K
V4DACP
V4DEVR1
V4DEVR2
V4DEVR3
V4DVSP
V4DISL

- d = The FN option is provided to allow hash sum checking on files that are not supported in the list of targets above. If the FN option is specified, then the DF must also be provided to indicate the hash sum file. The intent of this option is to allow for DISK hash sum verification on files that reside in temporary locations. If the FN option is used, no incore hash sum checking is done. The full path name to the file is required.
- e = Hash sum file associated with the argument to the FN parameter. The DF option is required when the FN option is used. The full path name to the file is required.
- f = Full path name to the output file. When this option is specified, then the output of the audit is sent to the specified file rather than the ROP and the originating terminal. This allows for more verbose output from the audit since the amount of output to the ROP is restricted. The OUTFILE option provides additional information to assist technical support in the resolution of hashsum mismatch problems. All output files should only be placed in file systems that are designed to hold temporary files. Creating files in other file systems may interfere with routine activities in the switch. These files should be removed when they are no longer needed.

4. SYSTEM RESPONSE

- PF = Printout follows. The message was accepted and the audit has been scheduled. Followed by one or more UPD:HSCHK output messages.

5. REFERENCES

Output Message(s):

UPD:HSCHK
UPD:SYSERR
UPD:USRERR
UPD:INFO

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-220 *Corrective Maintenance*

MCC Display Page(s):

116 MISCELLANEOUS
141-144 SM 1 THROUGH SM 192 STATUS
1800 SM X INHIBIT AND RECOVERY CONTROL

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:HSCHK-B
RELEASE 5E16(1) only
COMMAND GROUP FHADM
APPLICATION 5

1. PURPOSE

To verify the integrity of the disk and core images for hash sum protected products.

Format 1 is used to perform hash sum checking on ALL of the hashsum protected products, a specific switching module (SM), or a specific target [such as, SM, integrated services line unit (ISLU), and so forth].

Format 2 is used to perform hash sum checking on a specific text file and it's associated hash sum file.

Format 3 is used to perform hash sum checking on a specific communications module processor (CMP).

This check is scheduled by cron to run daily on all text [not office-dependent data (ODD) products in the switch that have associated hash sum files. There are two major checks that are done. First the disk image is verified by calculating the hash sums over the entire image and comparing them with the sums stored in the associated hash sum files. The second check is to compare (not calculate) the disk hash sums with the core hash sums. These two checks, coupled with the routine incore hash sum checking, provide a comprehensive audit to guarantee integrity of the hash sum protected products.

This input message is provided so that hash sum checking can be invoked manually. There are several different options that are provided to narrow the focus of the check to a specific SM or CMP, a specific target (such as, ISLU), a particular configuration, or a particular file.

During routine (scheduled from cron) hash sum verification, the only messages that are seen are the beginning message, and the completion message. However, if an error is found, additional messages will provide information on the error(s) that were found. The hash sum check is more verbose if it is being run in response to the input message. In this case it will report when it is beginning the disk hash sum check for each specified target.

Regardless of how the audit is requested (manually or routinely), disk hash sum errors are reported with a ROP message, a major alarm, and the switching module processor (SMP)/ CMP FILE indicator on MCC Display Page 116 will read HASHERR.

When this input message is run with only the ALL option and it does not find any errors, it will reset MCC Display Page 116 to normal.

Warning: *In the event that hash sum mismatches are found, corrective action should be taken immediately to prevent potential service impacting problems. Detailed procedures for correcting hash sum error problems are given in the Corrective Maintenance Manual. However, these should only be performed by trained and qualified personnel.*

2. FORMAT

```
[1]      UPD:HSCHK:{SM=b|TARGET=c|ALL}[ ,OUTFILE=f|REPT][ ,DISK|CORE];  
[2]      _____  
          UPD:HSCHK:FN=d,DF=e,TARGET=c[ ,OUTFILE=f];  
[3]      _____  
          UPD:HSCHK:CMP=a,{PRIM|MATE}[ ,OUTFILE=f][ ,DISK|CORE];  
          _____
```

3. EXPLANATION OF MESSAGE

ALL = Run the audit on all of the above targets,

- CORE = If the CORE option is specified, then only incore hash sum checking is performed. The default is to do both disk and core hash sum checking.
- DISK = If the DISK option is specified, then only disk hash sum checking is performed. The default is to do both disk and core hash sum checking.
- REPT = The REPT option allows a user to request a summary report of any incore hash sum mismatches that occurred from a previous run of the audit. If the REPT option is specified, then no hash sum checking is performed. The only action that is performed is to look at the SM(s)/CMP(s) that mismatched and report the targets where errors were found. This is especially useful to quickly determine which targets encountered problems in a given SM. For example, if SM 3 is showing a D/C HASH status (on MCC Display Page 1800 or MCC Display pages 141-144), the hash sum mismatch could have occurred in the SM text file (IM.out) or in any of the peripherals that are supported in that configuration (such as, LDSU, RAF, and so forth). The REPT option will report all of the targets that had hash sum mismatches.
- a = CMP number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = SM number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Valid value(s):
CMP
DDMA
DNUSCC
DNUSTMX
DSC3
DSP13K
DSP8K
DSPEVRC
GDSF
HDSU
HSAS
IDCUCCP
IDCUDLP
IDCULSI
IP22
IP3S
IP4F
IP4I
IP4IF
ISLU
ISLU2
ISTF
LDSU
LDSF
MH32
MHEIB
MHLB
MHPPC
MHPPCLB
MSGH
ODMA
OIOP
OIU24
PH2A

PH2G
PH22I
PH22S
PH3C
PH3S
PH4A
PH4G
PH4I
PHA1A
PHA2A
PHE2E
PI
PI2
PHV1C
PHV3C
PHV4C
PHV5C
RAF
SAS
SM
SM2K
V3DACP
V4D13K
V4D8K
V4DACP
V4DEV1
V4DEV2
V4DEV3
V4DVSP
V4DISL
V5D13K
V5D8K
V5DACP
V5DEV1
V5DEV2
V5DEV3
V5DVSP
V5DISL

- d = The FN option is provided to allow hash sum checking on files that are not supported in the list of targets above. If the FN option is specified, then the DF must also be provided to indicate the hash sum file. The intent of this option is to allow for DISK hash sum verification on files that reside in temporary locations. If the FN option is used, no incore hash sum checking is done. The full path name to the file is required.
- e = Hash sum file associated with the argument to the FN parameter. The DF option is required when the FN option is used. The full path name to the file is required.
- f = Full path name to the output file. When this option is specified, then the output of the audit is sent to the specified file rather than the ROP and the originating terminal. This allows for more verbose output from the audit since the amount of output to the ROP is restricted. The OUTFILE option provides additional information to assist technical support in the resolution of hashsum mismatch problems. All output files should only be placed in file systems that are designed to hold temporary files. Creating files in other file systems may interfere with routine activities in the switch. These files should be removed when they are no longer needed.

4. SYSTEM RESPONSE

PF = Printout follows. The message was accepted and the audit has been scheduled.
 Followed by one or more UPD:HSCHK output messages.

5. REFERENCES

Output Message(s):

UPD:HSCHK
UPD:SYSERR
UPD:USRERR
UPD:INFO

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-220 *Corrective Maintenance*

MCC Display Page(s):

116	MISCELLANEOUS
141-144	SM 1 THROUGH SM 192 STATUS
1800	SM X INHIBIT AND RECOVERY CONTROL

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:HSCHK-C
RELEASE 5E16(2) - 5E17(1)
COMMAND GROUP FHADM
APPLICATION 5

1. PURPOSE

To verify the integrity of the disk and core images for hash sum protected products.

Format 1 is used to perform hash sum checking on ALL of the hashsum protected products, a specific switching module (SM), or a specific target [such as, SM, integrated services line unit (ISLU), and so forth].

Format 2 is used to perform hash sum checking on a specific text file and it's associated hash sum file.

Format 3 is used to perform hash sum checking on a specific communications module processor (CMP).

This check is scheduled by cron to run daily on all text [not office-dependent data (ODD) products in the switch that have associated hash sum files. There are two major checks that are done. First the disk image is verified by calculating the hash sums over the entire image and comparing them with the sums stored in the associated hash sum files. The second check is to compare (not calculate) the disk hash sums with the core hash sums. These two checks, coupled with the routine incore hash sum checking, provide a comprehensive audit to guarantee integrity of the hash sum protected products.

This input message is provided so that hash sum checking can be invoked manually. There are several different options that are provided to narrow the focus of the check to a specific SM or CMP, a specific target (such as, ISLU), a particular configuration, or a particular file.

During routine (scheduled from cron) hash sum verification, the only messages that are seen are the beginning message, and the completion message. However, if an error is found, additional messages will provide information on the error(s) that were found. The hash sum check is more verbose if it is being run in response to the input message. In this case it will report when it is beginning the disk hash sum check for each specified target.

Regardless of how the audit is requested (manually or routinely), disk hash sum errors are reported with a ROP message, a major alarm, and the switching module processor (SMP)/ CMP FILE indicator on MCC Display Page 116 will read HASHERR.

When this input message is run with only the ALL option and it does not find any errors, it will reset MCC Display Page 116 to normal.

Warning: *In the event that hash sum mismatches are found, corrective action should be taken immediately to prevent potential service impacting problems. Detailed procedures for correcting hash sum error problems are given in the Corrective Maintenance Manual. However, these should only be performed by trained and qualified personnel.*

2. FORMAT

```
[1]      UPD:HSCHK:{SM=b|TARGET=c|ALL}[ ,OUTFILE=f|REPT][ ,DISK|CORE];  
[2]      _____  
          UPD:HSCHK:FN=d,DF=e,TARGET=c[ ,OUTFILE=f];  
[3]      _____  
          UPD:HSCHK:CMP=a,{PRIM|MATE}[ ,OUTFILE=f][ ,DISK|CORE];  
          _____
```

3. EXPLANATION OF MESSAGE

ALL = Run the audit on all of the above targets,

- CORE = If the CORE option is specified, then only incore hash sum checking is performed. The default is to do both disk and core hash sum checking.
- DISK = If the DISK option is specified, then only disk hash sum checking is performed. The default is to do both disk and core hash sum checking.
- REPT = The REPT option allows a user to request a summary report of any incore hash sum mismatches that occurred from a previous run of the audit. If the REPT option is specified, then no hash sum checking is performed. The only action that is performed is to look at the SM(s)/CMP(s) that mismatched and report the targets where errors were found. This is especially useful to quickly determine which targets encountered problems in a given SM. For example, if SM 3 is showing a D/C HASH status (on MCC Display Page 1800 or MCC Display pages 141-144), the hash sum mismatch could have occurred in the SM text file (IM.out) or in any of the peripherals that are supported in that configuration (such as, LDSU, RAF, and so forth). The REPT option will report all of the targets that had hash sum mismatches.
- a = CMP number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = SM number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Target. Valid value(s):
CMP
DDMA
DNUSCC
DNUSTMX
DSC3
DSP13K
DSP8K
DSPEVRC
GDSF
HDSU
HSAS
IDCUCCP
IDCUDLP
IDCULSI
IP22
IP3S
IP4F
IP4I
IP4IF
ISLU
ISLU2
ISTF
LDSU
LDSF
MH32
MHEIB
MHLB
MHPPC
MHPPCLB
MSGH
ODMA
OIOP
OIU24
OIUIP

PH2A
PH2G
PH22I
PH22S
PH3C
PH3S
PH4A
PH4G
PH4I
PHA1A
PHA2A
PHE2E
PI
PI2
PHV1C
PHV3C
PHV4C
PHV5C
RAF
SAS
SM
SM2K
SM2KFX
V3DACP
V4D13K
V4D8K
V4DACP
V4DEV1R1
V4DEV1R2
V4DEV1R3
V4DVSP
V4DISL
V5D13K
V5D8K
V5DACP
V5DEV1R1
V5DEV1R2
V5DEV1R3
V5DVSP
V5DISL

- d = The FN option is provided to allow hash sum checking on files that are not supported in the list of targets above. If the FN option is specified, then the DF must also be provided to indicate the hash sum file. The intent of this option is to allow for DISK hash sum verification on files that reside in temporary locations. If the FN option is used, no incore hash sum checking is done. The full path name to the file is required.
- e = Hash sum file associated with the argument to the FN parameter. The DF option is required when the FN option is used. The full path name to the file is required.
- f = Full path name to the output file. When this option is specified, then the output of the audit is sent to the specified file rather than the ROP and the originating terminal. This allows for more verbose output from the audit since the amount of output to the ROP is restricted. The OUTFILE option provides additional information to assist technical support in the resolution of hashsum mismatch problems.

Warning: *All output files should only be placed in file systems that are designed to hold temporary files. Creating files in other file systems may interfere with routine activities in the switch. These files should be removed when they are no longer needed.*

4. SYSTEM RESPONSE

PF = Printout follows. The message was accepted and the audit has been scheduled.
Followed by one or more UPD:HSCHK output messages.

5. REFERENCES

Output Message(s):

UPD:HSCHK
UPD:SYSERR
UPD:USRERR
UPD:INFO

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-220 *Corrective Maintenance*

MCC Display Page(s):

116	MISCELLANEOUS
141-144	SM 1 THROUGH SM 192 STATUS
1800	SM X INHIBIT AND RECOVERY CONTROL

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:HSCHK--D
RELEASE 5E18(1) only
COMMAND GROUP FHADM
APPLICATION 5

1. PURPOSE

To verify the integrity of the disk and core images for hash sum protected products.

Format 1 is used to perform hash sum checking on ALL of the hashsum protected products, a specific switching module (SM), or a specific target [such as, SM, integrated services line unit (ISLU), and so forth].

Format 2 is used to perform hash sum checking on a specific text file and it's associated hash sum file.

Format 3 is used to perform hash sum checking on a specific communications module processor (CMP).

This check is scheduled by cron to run daily on all text [not office-dependent data (ODD) products in the switch that have associated hash sum files. There are two major checks that are done. First the disk image is verified by calculating the hash sums over the entire image and comparing them with the sums stored in the associated hash sum files. The second check is to compare (not calculate) the disk hash sums with the core hash sums. These two checks, coupled with the routine incore hash sum checking, provide a comprehensive audit to guarantee integrity of the hash sum protected products.

This input message is provided so that hash sum checking can be invoked manually. There are several different options that are provided to narrow the focus of the check to a specific SM or CMP, a specific target (such as, ISLU), a particular configuration, or a particular file.

During routine (scheduled from cron) hash sum verification, the only messages that are seen are the beginning message, and the completion message. However, if an error is found, additional messages will provide information on the error(s) that were found. The hash sum check is more verbose if it is being run in response to the input message. In this case it will report when it is beginning the disk hash sum check for each specified target.

Regardless of how the audit is requested (manually or routinely), disk hash sum errors are reported with a ROP message, a major alarm, and the switching module processor (SMP)/ CMP FILE indicator on MCC Display Page 116 will read HASHERR.

When this input message is run with only the ALL option and it does not find any errors, it will reset MCC Display Page 116 to normal.

Warning: *In the event that hash sum mismatches are found, corrective action should be taken immediately to prevent potential service impacting problems. Detailed procedures for correcting hash sum error problems are given in the Corrective Maintenance Manual. However, these should only be performed by trained and qualified personnel.*

2. FORMAT

```
[1]      UPD:HSCHK:{SM=b|TARGET=c|ALL}[ ,OUTFILE=f|REPT][ ,DISK|CORE];  
[2]      _____  
          UPD:HSCHK:FN=d,DF=e,TARGET=c[ ,OUTFILE=f];  
[3]      _____  
          UPD:HSCHK:CMP=a,{PRIM|MATE}[ ,OUTFILE=f][ ,DISK|CORE];  
          _____
```

3. EXPLANATION OF MESSAGE

ALL = Run the audit on all of the above targets,

- CORE = If the CORE option is specified, then only incore hash sum checking is performed. The default is to do both disk and core hash sum checking.
- DISK = If the DISK option is specified, then only disk hash sum checking is performed. The default is to do both disk and core hash sum checking.
- REPT = The REPT option allows a user to request a summary report of any incore hash sum mismatches that occurred from a previous run of the audit. If the REPT option is specified, then no hash sum checking is performed. The only action that is performed is to look at the SM(s)/CMP(s) that mismatched and report the targets where errors were found. This is especially useful to quickly determine which targets encountered problems in a given SM. For example, if SM 3 is showing a D/C HASH status (on MCC Display Page 1800 or MCC Display pages 141-144), the hash sum mismatch could have occurred in the SM text file (IM.out) or in any of the peripherals that are supported in that configuration (such as, LDSU, RAF, and so forth). The REPT option will report all of the targets that had hash sum mismatches.
- a = CMP number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = SM number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Target. Valid value(s):
CMP
DDMA
DNUSCC
DNUSTMX
DSC3
DSP13K
DSP8K
DSPEVRC
GDSF
HDSU
HSAS
IDCUCCP
IDCUDLP
IDCULSI
IP22
IP3S
IP4F
IP4I
IP4IF
ISLU
ISLU2
ISTF
LDSU
LDSF
MH32
MHEIB
MHLB
MHPPC
MHPPCLB
MSGH
ODMA
OIOP
OIU24
OIUIP

PH2A
PH2G
PH22I
PH22S
PH3C
PH3S
PH4A
PH4G
PH4I
PHA1A
PHA2A
PHE2E
PI
PI2
PHV1C
PHV3C
PHV4C
PHV5C
RAF
SAS
SM
SM2K
SM2KFX
V3DACP
V4D13K
V4D8K
V4DACP
V4DEV1R1
V4DEV1R2
V4DEV1R3
V4DVSP
V4DISL
V5D13K
V5D8K
V5DACP
V5DEV1R1
V5DEV1R2
V5DEV1R3
V5DVSP
V5DISL

- d = The FN option is provided to allow hash sum checking on files that are not supported in the list of targets above. If the FN option is specified, then the DF must also be provided to indicate the hash sum file. The intent of this option is to allow for DISK hash sum verification on files that reside in temporary locations. If the FN option is used, no incore hash sum checking is done. The full path name to the file is required.
- e = Hash sum file associated with the argument to the FN parameter. The DF option is required when the FN option is used. The full path name to the file is required.
- f = Full path name to the output file. When this option is specified, then the output of the audit is sent to the specified file rather than the ROP and the originating terminal. This allows for more verbose output from the audit since the amount of output to the ROP is restricted. The OUTFILE option provides additional information to assist technical support in the resolution of hashsum mismatch problems.

Warning: *All output files should only be placed in file systems that are designed to hold temporary files. Creating files in other file systems may interfere with routine activities in the switch. These files should be removed when they are no longer needed.*

4. SYSTEM RESPONSE

PF = Printout follows. The message was accepted and the audit has been scheduled.
Followed by one or more UPD:HSCHK output messages.

5. REFERENCES

Output Message(s):

UPD:HSCHK
UPD:SYSERR
UPD:USRERR
UPD:INFO

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-220 *Corrective Maintenance*

MCC Display Page(s):

116	MISCELLANEOUS
141-144	SM 1 THROUGH SM 192 STATUS
1800	SM X INHIBIT AND RECOVERY CONTROL

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:HSCHK-E
RELEASE 5E19(1) only
COMMAND GROUP FHADM
APPLICATION 5

1. PURPOSE

To verify the integrity of the disk and core images for hash sum protected products.

Format 1 is used to perform hash sum checking on ALL of the hashsum protected products, a specific switching module (SM), or a specific target [such as, SM, integrated services line unit (ISLU), and so forth].

Format 2 is used to perform hash sum checking on a specific text file and it's associated hash sum file.

Format 3 is used to perform hash sum checking on a specific communications module processor (CMP).

This check is scheduled by cron to run daily on all text [not office-dependent data (ODD) products in the switch that have associated hash sum files. There are two major checks that are done. First the disk image is verified by calculating the hash sums over the entire image and comparing them with the sums stored in the associated hash sum files. The second check is to compare (not calculate) the disk hash sums with the core hash sums. These two checks, coupled with the routine incore hash sum checking, provide a comprehensive audit to guarantee integrity of the hash sum protected products.

This input message is provided so that hash sum checking can be invoked manually. There are several different options that are provided to narrow the focus of the check to a specific SM or CMP, a specific target (such as, ISLU), a particular configuration, or a particular file.

During routine (scheduled from cron) hash sum verification, the only messages that are seen are the beginning message, and the completion message. However, if an error is found, additional messages will provide information on the error(s) that were found. The hash sum check is more verbose if it is being run in response to the input message. In this case it will report when it is beginning the disk hash sum check for each specified target.

Regardless of how the audit is requested (manually or routinely), disk hash sum errors are reported with a ROP message, a major alarm, and the switching module processor (SMP)/ CMP FILE indicator on MCC Display Page 116 will read HASHERR.

When this input message is run with only the ALL option and it does not find any errors, it will reset MCC Display Page 116 to normal.

Warning: *In the event that hash sum mismatches are found, corrective action should be taken immediately to prevent potential service impacting problems. Detailed procedures for correcting hash sum error problems are given in the Corrective Maintenance Manual. However, these should only be performed by trained and qualified personnel.*

2. FORMAT

```
[1]      UPD:HSCHK:{SM=b|TARGET=c|ALL}[ ,OUTFILE=f|REPT][ ,DISK|CORE];  
[2]      _____  
          UPD:HSCHK:FN=d,DF=e,TARGET=c[ ,OUTFILE=f];  
[3]      _____  
          UPD:HSCHK:CMP=a,{PRIM|MATE}[ ,OUTFILE=f][ ,DISK|CORE];  
          _____
```

3. EXPLANATION OF MESSAGE

ALL = Run the audit on all of the above targets,

- CORE = If the CORE option is specified, then only incore hash sum checking is performed. The default is to do both disk and core hash sum checking.
- DISK = If the DISK option is specified, then only disk hash sum checking is performed. The default is to do both disk and core hash sum checking.
- REPT = The REPT option allows a user to request a summary report of any incore hash sum mismatches that occurred from a previous run of the audit. If the REPT option is specified, then no hash sum checking is performed. The only action that is performed is to look at the SM(s)/CMP(s) that mismatched and report the targets where errors were found. This is especially useful to quickly determine which targets encountered problems in a given SM. For example, if SM 3 is showing a D/C HASH status (on MCC Display Page 1800 or MCC Display pages 141-144), the hash sum mismatch could have occurred in the SM text file (IM.out) or in any of the peripherals that are supported in that configuration (such as, LDSU, RAF, and so forth). The REPT option will report all of the targets that had hash sum mismatches.
- a = CMP number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = SM number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Target. Valid value(s):
CMP
DDMA
DNUSCC
DNUSTMX
DSC3
DSP13K
DSP8K
DSPEVRC
GDSF
HDSU
HSAS
IDCUCCP
IDCUDLP
IDCULSI
IP22
IP3S
IP4F
IP4I
IP4IF
ISLU
ISLU2
ISTF
LDSU
LDSF
MH32
MHEIB
MHLB
MHPPC
MHPPCLB
MSGH
ODMA
OIOP
OIU24
OIUIP

PH2A
PH2G
PH22I
PH22S
PH3C
PH3S
PH4A
PH4G
PH4I
PHA1A
PHA2A
PHE2E
PHE3B
PI
PI2
PHV1C
PHV3C
PHV4C
PHV5C
RAF
SAS
SM
SM2K
SM2KFX
V3DACP
V4D13K
V4D8K
V4DACP
V4DEV1
V4DEV2
V4DEV3
V4DVSP
V4DISL
V5D13K
V5D8K
V5DACP
V5DEV1
V5DEV2
V5DEV3
V5DVSP
V5DISL

- d = The FN option is provided to allow hash sum checking on files that are not supported in the list of targets above. If the FN option is specified, then the DF must also be provided to indicate the hash sum file. The intent of this option is to allow for DISK hash sum verification on files that reside in temporary locations. If the FN option is used, no incore hash sum checking is done. The full path name to the file is required.
- e = Hash sum file associated with the argument to the FN parameter. The DF option is required when the FN option is used. The full path name to the file is required.
- f = Full path name to the output file. When this option is specified, then the output of the audit is sent to the specified file rather than the ROP and the originating terminal. This allows for more verbose output from the audit since the amount of output to the ROP is restricted. The OUTFILE option provides additional information to assist technical support in the resolution of hashsum mismatch problems. All output files should only be

placed in file systems that are designed to hold temporary files. Creating files in other file systems may interfere with routine activities in the switch. These files should be removed when they are no longer needed.

4. SYSTEM RESPONSE

PF = Printout follows. The message was accepted and the audit has been scheduled.
Followed by one or more UPD:HSCHK output messages.

5. REFERENCES

Output Message(s):

UPD:HSCHK
UPD:SYSERR
UPD:USRERR
UPD:INFO

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-220 *Corrective Maintenance*

MCC Display Page(s):

116	MISCELLANEOUS
141-144	SM 1 THROUGH SM 192 STATUS
1800	SM X INHIBIT AND RECOVERY CONTROL

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:HSCHK-F
RELEASE 5E20(1) and later
COMMAND GROUP FHADM
APPLICATION 5

1. PURPOSE

To verify the integrity of the disk and core images for hash sum protected products.

Format 1 is used to perform hash sum checking on ALL of the hashsum protected products, a specific switching module (SM), or a specific target [such as, SM, integrated services line unit (ISLU), and so forth].

Format 2 is used to perform hash sum checking on a specific text file and it's associated hash sum file.

This check is scheduled by cron to run daily on all text [not office-dependent data (ODD) products in the switch that have associated hash sum files. There are two major checks that are done. First the disk image is verified by calculating the hash sums over the entire image and comparing them with the sums stored in the associated hash sum files. The second check is to compare (not calculate) the disk hash sums with the core hash sums. These two checks, coupled with the routine incore hash sum checking, provide a comprehensive audit to guarantee integrity of the hash sum protected products.

This input message is provided so that hash sum checking can be invoked manually. There are several different options that are provided to narrow the focus of the check to a specific SM, a specific target (such as, ISLU), a particular configuration, or a particular file.

During routine (scheduled from cron) hash sum verification, the only messages that are seen are the beginning message, and the completion message. However, if an error is found, additional messages will provide information on the error(s) that were found. The hash sum check is more verbose if it is being run in response to the input message. In this case it will report when it is beginning the disk hash sum check for each specified target.

Regardless of how the audit is requested (manually or routinely), disk hash sum errors are reported with a ROP message, a major alarm, and the switching module SM/CMP FILE indicator on MCC Display Page 116 will read HASHERR.

When this input message is run with only the ALL option and it does not find any errors, it will reset MCC Display Page 116 to normal.

Warning: *In the event that hash sum mismatches are found, corrective action should be taken immediately to prevent potential service impacting problems. Detailed procedures for correcting hash sum error problems are given in the Corrective Maintenance Manual. However, these should only be performed by trained and qualified personnel.*

2. FORMAT

[1] UPD:HSCHK:{SM=a|TARGET=b|ALL}[,OUTFILE=e|REPT][,DISK|CORE];

[2] _____
 UPD:HSCHK:FN=c,DF=d,TARGET=b[,OUTFILE=e];

3. EXPLANATION OF MESSAGE

ALL = Run the audit on all of the above targets,

CORE = If the CORE option is specified, then only incore hash sum checking is performed. The default is to do both disk and core hash sum checking.

- DISK = If the DISK option is specified, then only disk hash sum checking is performed. The default is to do both disk and core hash sum checking.
- REPT = The REPT option allows a user to request a summary report of any incore hash sum mismatches that occurred from a previous run of the audit. If the REPT option is specified, then no hash sum checking is performed. The only action that is performed is to look at the SM(s)/CMP(s) that mismatched and report the targets where errors were found. This is especially useful to quickly determine which targets encountered problems in a given SM. For example, if SM 3 is showing a D/C HASH status (on MCC Display Page 1800 or MCC Display pages 141-144), the hash sum mismatch could have occurred in the SM text file (IM.out) or in any of the peripherals that are supported in that configuration (such as, LDSU, RAF, and so forth). The REPT option will report all of the targets that had hash sum mismatches.
- a = SM number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Target. Refer to the APP:TARGETS appendix in the Appendixes section of the Input Messages manual.
- c = The FN option is provided to allow hash sum checking on files that are not supported in the list of targets above. If the FN option is specified, then the DF must also be provided to indicate the hash sum file. The intent of this option is to allow for DISK hash sum verification on files that reside in temporary locations. If the FN option is used, no incore hash sum checking is done. The full path name to the file is required.
- d = Hash sum file associated with the argument to the FN parameter. The DF option is required when the FN option is used. The full path name to the file is required.
- e = Full path name to the output file. When this option is specified, then the output of the audit is sent to the specified file rather than the ROP and the originating terminal. This allows for more verbose output from the audit since the amount of output to the ROP is restricted. The OUTFILE option provides additional information to assist technical support in the resolution of hashsum mismatch problems. All output files should only be placed in file systems that are designed to hold temporary files. Creating files in other file systems may interfere with routine activities in the switch. These files should be removed when they are no longer needed.

4. SYSTEM RESPONSE

- PF = Printout follows. The message was accepted and the audit has been scheduled. Followed by one or more UPD:HSCHK output messages.

5. REFERENCES

Output Message(s):

UPD:HSCHK
UPD:SYSERR
UPD:USRERR
UPD:INFO

Input Appendix(es):

APP:RANGES
APP:TARGETS

Other Manual(s):

235-105-220 *Corrective Maintenance*

MCC Display Page(s):

116 MISCELLANEOUS

141-144	SM 1 THROUGH SM 192 STATUS
1800	SM X INHIBIT AND RECOVERY CONTROL

ID UPD:IMCAT
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Invalidates memory segments for the input message catalog (imcatlg), causing the catalog to be read from disk. This message is used during a software update of the input message catalog.

After invalidating the memory segments, this message increments the input message catalog version number shared between processes accessing imcatlg (the shell and HMMcc). When the version number changes, usually during a software update, these processes clear the old catalog from their segment space and read the updated catalog from disk.

2. FORMAT

UPD:IMCAT;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NG = No good. The input request is invalid. May also include:

- FILE INACCESSIBLE = Failed to open the input message catalog (/no5text/hm/imcatlg). Verify /no5text/hm/imcatlg exists and is readable before executing UPD:IMCAT again.
- SEGCODE CANNOT BE DETERMINED = Failed to get a segment name for one of the input message catalog segments. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.
- SEGMENT NAME CANNOT BE CLEARED = Failed to invalidate ("unname") one of the input message catalog segments. Restore original input message catalog before executing UPD:IMCAT again. (Refer to the UPD:BKOUT output message if imcatlg update occurred during a software update). If necessary, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

OK = Good. Request was accepted. Segments are marked invalid.

5. REFERENCES

Input Message(s):
UPD:BKOUT

ID UPD:INITPW
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that the password, the number of login attempts and/or the key, which are used by the Customer Service Computer Access Network System (CSCANS) interface, be initialized. Note that one, two or all three of these arguments may be specified for a given invocation of this input message, with the exception that if a new key is specified, then a new password must also be specified.

This input message should be used initially to setup the password and key used by the CSCANS interface. It should also be used to reinitialize the password and key after the CSCANS interface port has been locked out of service due to too many failed login attempts.

This input message may also be used to initialize the number of failed login attempts allowed and to initialize the key used to decode the password.

2. FORMAT

UPD:INITPW:{PASSWD=a[,KEY=c][,ATTEMPTS=b]|ATTEMPTS=b};

3. EXPLANATION OF MESSAGE

- a = The new password to be used, with a minimum of six characters. It should consist of at least two alphabetic characters and at least one numeric or special character.
- b = The number of failed successive login attempts allowed through the CSCANS interface before the port is locked out of service. If not specified, default is 3.
- c = The new key to be used, consisting of exactly two characters.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by a UPD:INITPW output message.

5. REFERENCES

Input Message(s):

UPD:CSCANS-REPT
UPD:CSCANS-STOP

Output Message(s):

UPD:CSCANS
UPD:INITPW

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)
1960 (INSTALL BWM)

ID UPD:INSTL
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Request that a software update (SU) be installed or backed out.

2. FORMAT

[1] UPD:INSTL:a[,SU="c"];
[2] UPD:INSTL,b[,SU="c"][,NXT[,UCL]];

3. EXPLANATION OF MESSAGE

NXT = Next command.

UCL = Unconditional. This should only be used for those MSGS file commands that allow the UCL option. Valid only with NXT.

a = Begin state.

SET = Identify the SU to be installed.

START = Starts the installation of a SU.

b = Continue state.

BKOUT = Return (uninstall) the SU, prior to being made OFFICIAL, back to the VERIFY COMPLETED stage. This will remove any newly created disk files.

DEACT = Return the SU back to the PREPARE completed stage from either the ACTIVATE or SOAK stage in reverse installation order. This will uninstall the updates without removing any files.

THRU=d = Install the SU through to the specified stage.

VERFY = Starts the VERIFY stage of the SU installation process.

c = SU name.

d = End stage. Valid value(s):

PREP = Prepare stage.

ACTV = Activate stage.

SOAK = Soak stage.

MKOF = Make official stage.

4. SYSTEM RESPONSE

NG = No good.

PF = Print follows.

5. REFERENCES

Input Message(s):
UPD:BOLO

Output Message(s):
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):
SU INSTALLATION

ID UPD:NBRLIST
RELEASE 5E20(1) and later
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests a neighbor list (NBRLIST) update of all or specific internet protocol (IP) neighbors in the IP address manager (AM) (IPAM) neighbor list for a given cluster or office.

The report will contain far clusters and offices as well as an indication of whether the update to the far end was successful.

2. FORMAT

UPD:NBRLIST[,CLUSTER=a][,OFFICE=b];

3. EXPLANATION OF MESSAGE

a = Cluster name.

b = Office name.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by one or more UPD:NBRLIST output messages.

NG = No good. May also include:

- CLUSTER NOT PROVISIONED = The request has been denied. The message is valid but the cluster is not provisioned.
- DATABASE ERROR = The request has been denied. The message is valid but an internal database error has prevented any action from being taken.
- OFFICE NOT PROVISIONED = The request has been denied. The message is valid but the office is not provisioned.

RL = Retry later. May also include:

- CMP UNAVAILABLE = The request has been denied. The message is valid but the CMP is not available.

5. REFERENCES

Output Message(s):

OP:NBRLIST
UPD:NBRLIST

Input Appendix(es):

APP:RANGES

ID UPD:OFC-A
RELEASE 5E15 - 5E17(1)
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests updates associated with a temporary software update be made permanent. This must be done to one software update at a time, beginning with the oldest temporary software update and continuing with the order in which they were applied.

2. FORMAT

UPD:OFC:UPNM="a" [,UCL];

3. EXPLANATION OF MESSAGE

UCL = Unconditionally make official.

a = Software update: Specified a BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn where BWM, TMP, and CFT identify the category of software update; yy is the last two digits of the year, and nnnn is the sequence number identifying the software update (" " is required).

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted.

5. REFERENCES

Input Message(s):

UPD:BKOUT

UPD:DISPLAY

Output Message(s):

UPD:SYSERR

UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)

1960 (INSTALL BWM)

ID UPD:OFC-B
RELEASE 5E18(1) and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests updates associated with a temporary software update be made permanent. This must be done to one software update at a time, beginning with the oldest temporary software update and continuing with the order in which they were applied.

2. FORMAT

UPD:OFC:UPNM="a" [,UCL];

3. EXPLANATION OF MESSAGE

UCL = Unconditionally make official.

a = Software update, specified a BWMrr-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn. Valid value(s):

BWM = Indicates an off-site originated update.

CFT = Indicates an on-site originated update.

TMP = Indicates an off-site originated update.

yy = The last two digits of the year.

rr = The release number [for example, 18 for 5E18(1)].

nnnn = The sequence number identifying the software update

Note: Double quotes (" ") are required.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted.

5. REFERENCES

Input Message(s):

UPD:BKOUT

UPD:DISPLAY

Output Message(s):

UPD:SYSERR

UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE

1960 INSTALL BWM

ID UPD:OMDB
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that the message class or the alarm level for either one or a list of message keys in the output message data base (OMDB) disk file be updated. Successful updates are logged so that they can be reapplied after a field update.

2. FORMAT

UPD:OMDB:KEY=a:{MSGCLS=b|ALARM=c};

3. EXPLANATION OF MESSAGE

- a = OMDB key (or list of keys). Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual for a list of valid OMDB keys.
- b = Numeric value for message class in range 0 to 225.
- c = Valid value(s):
- | | |
|------|---|
| ACT | = Automatically generated report. It may require some action to be taken. |
| CRIT | = Critical alarm. Immediate action required. |
| INFO | = Automatically generated report. |
| MAJ | = Major alarm. Immediate action required. |
| MAN | = Manually requested report. |
| MIN | = Minor alarm. Action required. |
| VAR | = Variable alarm supplied by client process. If the client process does not specify it, the alarm is defaulted to "INFO." |

4. SYSTEM RESPONSE

- IP = In progress. Followed by UPD:OMDB output message.
- NG = No good. May also include:
- INVALID ALARM = Alarm is not one of the seven valid alarm levels.
 - INVALID KEY = A message key is not within the valid range.
 - INVALID MSGCLS = Message class is not within the valid range.
 - SYNTAX ERROR = Message is not in the correct format.
 - TOO MANY KEYS = Maximum of 32 keys are allowed per message.

5. REFERENCES

Input Message(s):
ACTV:OMDB
APPLY:OMDB
OP:OMDB

Output Message(s):
UPD:OMDB

Other Manual(s):
235-105-250A *Craft Terminal Lockout Job Aid*

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:OMIT
RELEASE 5E15 and later
COMMAND GROUP N/A
APPLICATION 5,3B

1. PURPOSE

Requests that a pending computer field update (that is, one that has been interrupted) be removed from further consideration. This input message effectively redefines the BWM containing the omitted update, and should be used only on updates which cannot be reset or continued.

Warning: *This message should be used only as a last resort. It should never be used without expert technical assistance.*

2. FORMAT

UPD:OMIT [:DATA ,VLEV=a];

3. EXPLANATION OF MESSAGE

a = Requests additional output from a field update process. Verbose flags may be set for UPD and fuomit. The flags must be entered in the order the processes are listed. To turn on the verbose output for fuomit, UPD's flag must be used or set to zero.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by UPD output messages.

5. REFERENCES

Input Message(s)

UPD:BKOUT
UPD:PERM
UPD:RESET

Output Message(s):

UPD:APPLY
UPD:BKOUT
UPD:BLDBOOT
UPD:CLR
UPD:DISPLAY
UPD:FTRC-3B
UPD:GEN-APPL
UPD:GEN-BACKOUT
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:ISG
UPD:OMDB
UPD:OMIT
UPD:PERM
UPD:PURGE
UPD:REPT
UPD:RESET

UPD:UPNM
UPD:VFY

ID UPD:PATCH
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that program update compact switch processor's patch space.

The patch space compaction is normally used when the target's, SM, SM-2000 or CMP, patch space become insufficient and failed the program update process. The patch space compaction operation will try to increase the size of target's patch space and make successful program update process.

Note: If there is any need to back out patch space compaction after it has been made official, back-out-last-official (BOLO) process can be used for backout. For BOLO procedure check BOLO reference.

The target's patch space may become so fragmented or insufficient that even this operation can not generate large enough patch space for a successful program update process.

2. FORMAT

UPD:PATCH:TARGET=a,ACTION=b;

3. EXPLANATION OF MESSAGE

- a = Type of processor to be compact patch space. Valid value(s):
- | | |
|------|-----------------------------------|
| SM | = Switching module. |
| SM2K | = Switching module (SM)-2000. |
| CMP | = Communication module processor. |
- b = Type of patch space compaction action. Valid value(s):
- | | |
|-------|---|
| APPLY | = Execute patch space compaction and apply on requested target. |
| OFC | = Make official for the applied target. |
| BKOUT | = Back out previously requested applied target. |

4. SYSTEM RESPONSE

- NG = No good. The message was not accepted because the wrong TARGET or ACTION has been entered.
- PF = Printout follows. The request has been accepted. Followed by a UPD:PATCH output message.
- INPROG = In progress. The message was accepted and the action is in progress.
- CMPL, (action) = Complete (action)'s process. May also include:
- | |
|-------|
| APPLY |
| OFC |
| BKOUT |

5. REFERENCES

Output Message(s):
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-040-100 *OA&M Planning Guide*
235-100-125 *System Description*
235-105-100 *System Maintenance Requirement and Tools*
235-105-210 *Routine Operation and Maintenance*
235-106-20x **5ESS®** *Switch/VCDX Software Update procedures*
235-120-120 *VCDX User's Guide*

MCC Display Page(s):
1950 (PROGRAM UPDATE MAINTENANCE)

ID UPD:PERM-A
RELEASE 5E15 - 5E17(1)
COMMAND GROUP N/A
APPLICATION 5,3B

1. PURPOSE

Requests that updates associated with a temporary broadcast warning message (BWM) be made permanent. Only the oldest temporary BWM may be made permanent.

2. FORMAT

UPD:PERM:DATA {UPNM="a"|CONT}[,VLEV=b];

3. EXPLANATION OF MESSAGE

- a = BWM. Specified as BWMyy-nn, DMTyy-nnnn, or CFTyy-nnnn, where BWM, DMT, and CFT identify the category of the BWM, yy is the last two digits of the year, and nnnn is the sequence number identifying the BWM.
- CONT = Attempt to complete the UPD:PERM input message that failed.
- b = Requests additional output from a field update process. Verbose flags may be set for UPD, ucm, ogen, and oild. The flags must be entered in the order in which the processes are listed. To turn on the verbose output for a process, all process flags before that one must be used or set to zero.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the appropriate UPD output messages.

5. REFERENCES

Input Message(s):

UPD:BKOUT
UPD:BLDBOOT
UPD:DISPLAY
UPD:OMIT
UPD:RESET-3B

Output Message(s):

UPD:APPLY
UPD:BKOUT
UPD:BLDBOOT
UPD:CLR
UPD:DISPLAY
UPD:FTRC-3B
UPD:GEN-APPL
UPD:GEN-BACKOUT
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:ISG
UPD:OMDB
UPD:OMIT

UPD:PERM
UPD:PURGE
UPD:REPT
UPD:RESET
UPD:UPNM
UPD:VFY

ID UPD:PERM-B
RELEASE 5E18(1) and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that updates associated with a temporary broadcast warning message (BWM) be made permanent. Only the oldest temporary BWM may be made permanent.

2. FORMAT

UPD:PERM:DATA {UPNM="a"|CONT}[,VLEV=b];

3. EXPLANATION OF MESSAGE

- CONT = Attempt to complete the UPD:PERM input message that failed.
- a = Software update, specified as BWMrr-nnnn, DMTyy-nnnn, or CFTyy-nnnn. Valid value(s):
- | | |
|------|--|
| BWM | = Indicates an off-site originated update. |
| CFT | = Indicates an on-site originated update. |
| TMP | = Indicates an off-site originated update. |
| yy | = The last two digits of the year. |
| rr | = The release number [for example, 18 for 5E18(1)]. |
| nnnn | = The sequence number identifying the software update. |
- b = Requests additional output from a field update process. Verbose flags may be set for UPD, ucm, ogen, and oild. The flags must be entered in the order in which the processes are listed. To turn on the verbose output for a process, all process flags before that one must be used or set to zero.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the appropriate UPD output messages.

5. REFERENCES

Input Message(s):

UPD:BKOUT
UPD:BLDBOOT
UPD:DISPLAY
UPD:OMIT
UPD:RESET-3B

Output Message(s):

UPD:APPLY
UPD:BKOUT
UPD:BLDBOOT
UPD:CLR
UPD:DISPLAY
UPD:FTRC-3B
UPD:GEN-APPL
UPD:GEN-BACKOUT
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-ENTER

UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:ISG
UPD:OMDB
UPD:REPT
UPD:UPNM
UPD:VFY

ID UPD:PMPPERF-A
RELEASE 5E15 only
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that inconsistent pumpable switching module (SM) peripherals be removed and restored.

The target peripheral(s) can be specified in two ways. A single target can be specified explicitly with the TARGET option (Format 1). All targets affected by a given software update may be removed and restored with the UPNM option (Format 2). The SM resident image for the target(s) must be consistent, otherwise UPD:PMPPERF will abort. UPD:PMPPERF can be thought of as a way to recover from type 7 inconsistencies. All the affected hardware should be in service prior to entering this message.

For protocol handlers (PH), each packet switch unit shelf must be equipped with at least one standby spare PH of each affected hardware type. If affected hardware is out-of-service, UPD:PMPPERF may abort unless the UCL option is given (with the TARGET option only). Refer to the UPD:PMPPERF output manual page for more information.

2. FORMAT

[1] UPD:PMPPERF:TARGET=a[,UCL];
[2] UPD:PMPPERF:UPNM="b"[,OFC];

3. EXPLANATION OF MESSAGE

OFC = Only those targets that require remove/restore after the UPD:OFC input message (ISLU, IDCUCCP, IDCUDLP, IDCULSI, DNUSCC, and DNUSTMX) will be chosen from the MSGS file. This option is appropriate only after the UPD:OFC input message has completed since only those targets will need to be removed/restored. This option has nothing to do with which image (temporary versus official) is pumped to the peripherals.

UCL = Remove and restore the target peripherals unconditionally.

Default is conditional removal. The restoration is always unconditional.

a = Pumpable SM peripheral type. Valid value(s):

CM3 = Communication module 3
DNUSCC = Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
DNUSTMX = Transmission multiplexer.
DSC3 = Digital service circuit - model 3.
DSP13K = 8K digital signal processor for CDMA protocol handler for voice.
DSP8K = 8K digital signal processor for CDMA protocol handler for voice.
DSPEVRC = EVRC digital signal processor for CDMA protocol handler for voice.
GDSF = Global digital services function - model 3.
HDSU = Hardware digital service unit.
HSAS = Service announcement system diagnostic image.
IDCUCCP = Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP = IDCU data link processor.
IDCULSI = IDCU loop side interface.
IP22S = PH22 OIP image.
IP22W = PH22 wireless OIP image.
IP3S = Protocol handler 3 CCS OIP image.
IP4F = Frame relay protocol handler version 4 I/O processor.
IP4I = PH4I operational input/output processor.
IP4IF = ISDN Frame Relay protocol handler version 4 I/O processor.

ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
PH2A	= Protocol handler 2 (PH2) with ACCESS application processor image.
PH2G	= PH2 with GATEWAY application processor image.
PH22S	= PH22 AP image.
PH22W	= PH22 wireless AP image.
PH3C	= Protocol handler 3 (PH3) with COMMON application processor image.
PH3S	= PH3 CCS AP image.
PH4A	= Protocol handler 4 (PH4) access image.
PH4G	= PH4 gateway image.
PH4I	= PH4 with integrated services digital network (ISDN) application processor image.
PHA1A	= Protocol handler for ATM (asynchronous transfer mode).
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice for CDMA (code division multiple access).
PHV3C	= Protocol handler for voice version 3 for CDMA application.
PHV4C	= Protocol handler for voice version 4 for CDMA application.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SMPMH	= Switching module processor message handler (MH) operational image.
SMPMLB	= Switching module processor MH little boot image.
V3DACP	= ACELP digital signal processor, for TDMA protocol handler for voice.
V4D13K	= 13K DSP, for CDMA protocol handler for voice version 4.
V4D8K	= 8K DSP, for CDMA protocol handler for voice version 4.
V4DACP	= ACELP DSP, for TDMA protocol handler for voice version 4.
V4DEVR1	= EVRC1 DSP, for CDMA protocol handler for voice version 4.
V4DEVR2	= EVRC2 DSP, for CDMA protocol handler for voice version 4.
V4DEVR3	= EVRC3 DSP, for CDMA protocol handler for voice version 4.
V4DVSP	= VSELP DSP, for TDMA protocol handler for voice version 4.
V4DISL	= ISLP DSP, for IS41 TDMA protocol handler for data circuit.

- b = Use the MSGS file in the specified software update package to determine the list of targets. The software update package must exist either under the /etc/bwm directory, or be a software update number listed as official on the 1950 page.

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted. This is followed by one or more UPD:PMPPERF output messages.

5. REFERENCES

Input Message(s):
UPD:OFC
UPD:PMPSTOP
UPD:VFYCON

Output Message(s):
UPD:OFC

UPD:PMPPERF
UPD:PMPSTOP
UPD:SYSERR
UPD:USRERR
UPD:VFYCON

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950	PROGRAM UPDATE MAINTENANCE
1960	INSTALL BWM

ID UPD:PMPPERF-B
RELEASE 5E16(1) only
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that inconsistent pumpable switching module (SM) peripherals be removed and restored.

The target peripheral(s) can be specified in two ways. A single target can be specified explicitly with the TARGET option (Format 1). All targets affected by a given software update may be removed and restored with the UPNM option (Format 2).

The SM resident image for the target(s) must be consistent, otherwise UPD:PMPPERF will abort. UPD:PMPPERF can be thought of as a way to recover from type 7 inconsistencies.

All the affected hardware should be in service prior to entering this message. For protocol handlers (PH), each packet switch unit shelf must be equipped with at least one standby spare PH of each affected hardware type. If affected hardware is out-of-service, UPD:PMPPERF may abort unless the UCL option is given (with the TARGET option only). Refer to the UPD:PMPPERF output manual page for more information.

2. FORMAT

[1] UPD:PMPPERF:TARGET=a[,UCL];

[2] UPD:PMPPERF:UPNM="b"[,OFC];

3. EXPLANATION OF MESSAGE

OFC = Only those targets that require remove/restore after the UPD:OFC input message (ISLU, IDCUCCP, IDCUDLP, IDCULSI, DNUSCC, and DNUSTMX) will be chosen from the MSGS file. This option is appropriate only after the UPD:OFC input message has completed since only those targets will need to be removed/restored. This option has nothing to do with which image (temporary versus official) is pumped to the peripherals.

UCL = Remove and restore the target peripherals unconditionally.

Default is conditional removal. The restoration is always unconditional.

a = Pumpable SM peripheral type. Valid value(s):

CM3	= Communication module 3
DNUSCC	= Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
DNUSTMX	= Transmission multiplexer.
DSC3	= Digital service circuit - model 3.
DSP13K	= 8K digital signal processor (DSP) for code division multiple access (CDMA) protocol handler for voice.
DSP8K	= 8K digital signal processor for CDMA protocol handler for voice.
DSPEVRC	= EVRC digital signal processor for CDMA protocol handler for voice.
GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP22	= PH22 common input/output processor (IOP) image.
IP3S	= PH3 CCS IOP image.

IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MH32	= Switching module processor message handler 32 (MH32) operational image.
MHEIB	= Switching module processor message handler EIB (MHEIB) operational image.
MHLB	= Switching module processor MH little boot image.
MHPPC	= Switching module processor message handler power PC (MHPPC) operational image.
MHPPCLB	= Switching module processor MHPPC little boot image.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit - 24 channels.
PH2A	= Protocol handler 2 (PH2) ACCESS application processor (AP) image.
PH2G	= PH2 GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
V3DACP	= ACELP DSP for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEV1R1	= EVRC1 DSP, for CDMA for PHV4.
V4DEV1R2	= EVRC2 DSP, for CDMA for PHV4.
V4DEV1R3	= EVRC3 DSP, for CDMA for PHV4.
V4DVSP	= VSELP DSP, for TDMA for PHV4.
V4DISL	= ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K	= 13K DSP, for CDMA for PHV5.
V5D8K	= 8K DSP, for CDMA for PHV5.
V5DACP	= ACELP DSP, for TDMA for PHV5.
V5DEV1R1	= EVRC1 DSP, for CDMA for PHV5.
V5DEV1R2	= EVRC2 DSP, for CDMA for PHV5.
V5DEV1R3	= EVRC3 DSP, for CDMA for PHV5.

V5DVSP = VSELP DSP, for TDMA PHV5.
V5DISL = ISLP DSP, for IS41 TDMA PHV5 data circuit.

- b = Use the MSGS file in the specified software update package to determine the list of targets. The software update package must exist either under the /etc/bwm directory, or be a software update number listed as official on the 1950 page.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. This is followed by one or more UPD:PMPPERF output messages.

5. REFERENCES

Input Message(s):

UPD:OFC
UPD:PMPSTOP
UPD:VFYCON

Output Message(s):

UPD:OFC
UPD:PMPPERF
UPD:PMPSTOP
UPD:SYSERR
UPD:USRERR
UPD:VFYCON

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1960 INSTALL BWM

ID UPD:PMPPERF-C
RELEASE 5E16(2) - 5E17(1)
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that inconsistent pumpable switching module (SM) peripherals be removed and restored.

The target peripheral(s) can be specified in two ways. A single target can be specified explicitly with the TARGET option (Format 1). All targets affected by a given software update may be removed and restored with the UPNM option (Format 2).

The SM resident image for the target(s) must be consistent, otherwise UPD:PMPPERF will abort. UPD:PMPPERF can be thought of as a way to recover from type 7 inconsistencies.

All the affected hardware should be in service prior to entering this message. For protocol handlers (PH), each packet switch unit shelf must be equipped with at least one standby spare PH of each affected hardware type. If affected hardware is out-of-service, UPD:PMPPERF may abort unless the UCL option is given (with the TARGET option only). Refer to the UPD:PMPPERF output manual page for more information.

2. FORMAT

[1] UPD:PMPPERF:TARGET=a[,UCL];

[2] UPD:PMPPERF:UPNM="b"[,OFC];

3. EXPLANATION OF MESSAGE

OFC = Only those targets that require remove/restore after the UPD:OFC input message (ISLU, IDCUCCP, IDCUDLP, IDCULSI, DNUSCC, and DNUSTMX) will be chosen from the MSGS file. This option is appropriate only after the UPD:OFC input message has completed since only those targets will need to be removed/restored. This option has nothing to do with which image (temporary versus official) is pumped to the peripherals.

UCL = Remove and restore the target peripherals unconditionally.

Default is conditional removal. The restoration is always unconditional.

a = Pumpable SM peripheral type. Valid value(s):

CM3	= Communication module 3
DNUSCC	= Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
DNUSTMX	= Transmission multiplexer.
DSC3	= Digital service circuit - model 3.
DSP13K	= 8K digital signal processor (DSP) for code division multiple access (CDMA) protocol handler for voice.
DSP8K	= 8K digital signal processor for CDMA protocol handler for voice.
DSPEVRC	= EVRC digital signal processor for CDMA protocol handler for voice.
GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP22	= PH22 common input/output processor (IOP) image.
IP3S	= PH3 CCS IOP image.

IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MH32	= Switching module processor message handler 32 (MH32) operational image.
MHEIB	= Switching module processor message handler EIB (MHEIB) operational image.
MHLB	= Switching module processor MH little boot image.
MHPPC	= Switching module processor message handler <i>PowerPC</i> ¹ (MHPPC) operational image.
MHPPCLB	= Switching module processor MHPPC little boot image.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit (OIU) - 24 channels.
OIUIP	= Optical interface unit - internet protocol (IP).
PH2A	= Protocol handler 2 (PH2) ACCESS application processor (AP) image.
PH2G	= PH2 GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH31S	= PH31 signaling AP image.
PH3C	= PH3 COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
V3DACP	= ACELP DSP for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEV1	= EVRC1 DSP, for CDMA for PHV4.
V4DEV2	= EVRC2 DSP, for CDMA for PHV4.
V4DEV3	= EVRC3 DSP, for CDMA for PHV4.
V4DVSP	= VSELP DSP, for TDMA for PHV4.
V4DISL	= ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K	= 13K DSP, for CDMA for PHV5.

1. Registered trademark of International Business Machines Corp.

V5D8K = 8K DSP, for CDMA for PHV5.
V5DACP = ACELP DSP, for TDMA for PHV5.
V5DEVR1 = EVRC1 DSP, for CDMA for PHV5.
V5DEVR2 = EVRC2 DSP, for CDMA for PHV5.
V5DEVR3 = EVRC3 DSP, for CDMA for PHV5.
V5DVSP = VSELP DSP, for TDMA PHV5.
V5DISL = ISLP DSP, for IS41 TDMA PHV5 data circuit.

- b = Use the MSGS file in the specified software update package to determine the list of targets. The software update package must exist either under the /etc/bwm directory, or be a software update number listed as official on the 1950 page.

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted. This is followed by one or more UPD:PMPPERF output messages.

5. REFERENCES

Input Message(s):

UPD:OFC
UPD:PMPSTOP
UPD:VFYCON

Output Message(s):

UPD:OFC
UPD:PMPPERF
UPD:PMPSTOP
UPD:SYSERR
UPD:USRERR
UPD:VFYCON

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1960 INSTALL BWM

ID UPD:PMPPERF-D
RELEASE 5E18(1) - 5E19(1)
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that inconsistent pumpable switching module (SM) peripherals be removed and restored.

The target peripheral(s) can be specified in two ways. A single target can be specified explicitly with the TARGET option (Format 1). All targets affected by a given software update may be removed and restored with the UPNM option (Format 2).

The SM resident image for the target(s) must be consistent, otherwise UPD:PMPPERF will abort. UPD:PMPPERF can be thought of as a way to recover from type 7 inconsistencies.

All the affected hardware should be in service prior to entering this message. For protocol handlers (PH), each packet switch unit shelf must be equipped with at least one standby spare PH of each affected hardware type. If affected hardware is out-of-service, UPD:PMPPERF may abort unless the UCL option is given (with the TARGET option only). Refer to the UPD:PMPPERF output manual page for more information.

2. FORMAT

[1] UPD:PMPPERF:TARGET=a[,UCL];

[2] UPD:PMPPERF:UPNM="b"[,OFC];

3. EXPLANATION OF MESSAGE

OFC = Only those targets that require remove/restore after the UPD:OFC input message (ISLU, IDCUCCP, IDCUDLP, IDCULSI, DNUSCC, and DNUSTMX) will be chosen from the MSGS file. This option is appropriate only after the UPD:OFC input message has completed since only those targets will need to be removed/restored. This option has nothing to do with which image (temporary versus official) is pumped to the peripherals.

UCL = Remove and restore the target peripherals unconditionally.

Default is conditional removal. The restoration is always unconditional.

a = Pumpable SM peripheral type. Valid value(s):

CM3 = Communication module 3

DNUSCC = Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.

DNUSTMX = Transmission multiplexer.

DSC3 = Digital service circuit - model 3.

DSP13K = 8K digital signal processor (DSP) for code division multiple access (CDMA) protocol handler for voice.

DSP8K = 8K digital signal processor for CDMA protocol handler for voice.

DSPEVRC = EVRC digital signal processor for CDMA protocol handler for voice.

GDSF = Global digital services function - model 3.

HDSU = Hardware digital service unit.

HSAS = Service announcement system diagnostic image.

IDCUCCP = Integrated digital carrier unit (IDCU) common control processor.

IDCUDLP = IDCU data link processor.

IDCULSI = IDCU loop side interface.

IP22 = PH22 common input/output processor (IOP) image.

IP3S = PH3 CCS IOP image.

IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MH32	= Switching module processor message handler 32 (MH32) operational image.
MHEIB	= Switching module processor message handler EIB (MHEIB) operational image.
MHLB	= Switching module processor MH little boot image.
MHPPC	= Switching module processor message handler <i>PowerPC</i> ¹ (MHPPC) operational image.
MHPPCLB	= Switching module processor MHPPC little boot image.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit (OIU) - 24 channels.
OIUIP	= Optical interface unit - internet protocol (IP).
PH2A	= Protocol handler 2 (PH2) ACCESS application processor (AP) image.
PH2G	= PH2 GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH31S	= PH31 signaling AP image.
PH3C	= PH3 COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
PHV6C	= PHV6 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
V3DACP	= ACELP DSP for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEV1	= EVRC1 DSP, for CDMA for PHV4.
V4DEV2	= EVRC2 DSP, for CDMA for PHV4.
V4DEV3	= EVRC3 DSP, for CDMA for PHV4.
V4DVSP	= VSELP DSP, for TDMA for PHV4.
V4DISL	= ISLP DSP, for IS41 TDMA PHV4 data circuit.

1. Registered trademark of International Business Machines Corp.

V5D13K = 13K + EVRC DSP, for CDMA for PHV5.
V5D8K = 8K DSP, for CDMA for PHV5.
V5DEVR1 = EVRC1 DSP, for CDMA for PHV5.
V5DEVR2 = EVRC2 DSP, for CDMA for PHV5.
V5DEVR3 = EVRC3 DSP, for CDMA for PHV5.
V5DVSP = VSELP DSP, for TDMA PHV5.
V5DISL = ISLP DSP, for IS41 TDMA PHV5 data circuit.
V6D13K = 13K + EVRC DSP, for CDMA for PHV6.

- b = Use the MSGS file in the specified software update package to determine the list of targets. The software update package must exist either under the /etc/bwm directory, or be a software update number listed as official on the 1950 page.

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted. This is followed by one or more UPD:PMPPERF output messages.

5. REFERENCES

Input Message(s):

UPD:OFC
UPD:PMPSTOP
UPD:VFYCON

Output Message(s):

UPD:OFC
UPD:PMPPERF
UPD:PMPSTOP
UPD:SYSERR
UPD:USRERR
UPD:VFYCON

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1960 INSTALL BWM

ID UPD:PMPPERF-E
RELEASE 5E20(1) and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that inconsistent pumpable switching module (SM) peripherals be removed and restored.

The target peripheral(s) can be specified in two ways. A single target can be specified explicitly with the TARGET option (Format 1). All targets affected by a given software update may be removed and restored with the UPNM option (Format 2).

The SM resident image for the target(s) must be consistent, otherwise UPD:PMPPERF will abort. UPD:PMPPERF can be thought of as a way to recover from type 7 inconsistencies.

All the affected hardware should be in service prior to entering this message. For protocol handlers (PH), each packet switch unit shelf must be equipped with at least one standby spare PH of each affected hardware type. If affected hardware is out-of-service, UPD:PMPPERF may abort unless the UCL option is given (with the TARGET option only). Refer to the UPD:PMPPERF output manual page for more information.

2. FORMAT

[1] UPD:PMPPERF:TARGET=a[,UCL];

[2] UPD:PMPPERF:UPNM="b"[,OFC];

3. EXPLANATION OF MESSAGE

OFC = Only those targets that require remove/restore after the UPD:OFC input message (ISLU, IDCUCCP, IDCUDLP, IDCULSI, DNUSCC, and DNUSTMX) will be chosen from the MSGS file. This option is appropriate only after the UPD:OFC input message has completed since only those targets will need to be removed/restored. This option has nothing to do with which image (temporary versus official) is pumped to the peripherals.

UCL = Remove and restore the target peripherals unconditionally.

Default is conditional removal. The restoration is always unconditional.

a = Pumpable SM peripheral type. Refer to the APP:TARGETS appendix in the Appendixes section of the Input Messages manual.

b = Use the MSGS file in the specified software update package to determine the list of targets. The software update package must exist either under the /etc/bwm directory, or be a software update number listed as official on the 1950 page.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. This is followed by one or more UPD:PMPPERF output messages.

5. REFERENCES

Input Message(s):
UPD:OFC
UPD:PMPSTOP
UPD:VFYCON

Output Message(s):

UPD:OFC
UPD:PMPPERF
UPD:PMPSTOP
UPD:SYSERR
UPD:USRERR
UPD:VFYCON

Input Appendix(es):

APP:TARGETS

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950	PROGRAM UPDATE MAINTENANCE
1990	INSTALL BWM

ID UPD:PMPSTOP
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that execution of an in-progress UPD:PMPPERF input message be stopped.

2. FORMAT

UPD:PMPSTOP;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by a UPD:PMPSTOP output message.

5. REFERENCES

Input Message(s):

UPD:PMPPERF

UPD:VFYCON

Output Message(s):

UPD:PMPPERF

UPD:PMPSTOP

UPD:SYSERR

UPD:USRERR

UPD:VFYCON

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)

1960 (INSTALL BWM)

ID UPD:PRINT
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Request that an the specified file type of a designated software update (SU) be printed to the ROP.

2. FORMAT

UPD:PRINT:a [,SU=b];

3. EXPLANATION OF MESSAGE

- a = File type. Valid value(s):
 MSGS
 SCANS
- b = SU name (10 character maximum). If no SU name is given the specified file type of the SU which is currently loaded will be printed.

4. SYSTEM RESPONSE

- NG = No good.
- PF = Printout follows. Followed by the REPT:AML-REACH output message.

5. REFERENCES

Input Message(s):

UPD:SET
UPD:PRINT

Output Message(s):

REPT:AML-REACH
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

SU INSTALLATION

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:PSR-A
RELEASE 5E16(2) - 5E22(1)
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that the patch space recovery (PSR) feature be executed. Before executing these commands, please read the Patch Space Recovery Procedures of the Routine Operations & Maintenance Procedures manual (235-105-210) to familiarize yourself with the feature.

Warning: *This command should be executed during off-hours to minimize impact to switch.*

2. FORMAT

[1]	UPD:PSR,[PREPARE REPORT BKOUT DEACT STATUS],TARGET=a
[2]	UPD:PSR,ACTIVATE,TARGET=a,SMLIST=b[,SOAK=c]
[3]	UPD:PSR,COMMIT,TARGET=a[,UCL]
[4]	UPD:PSR,[RESETSOAK STOP]

3. EXPLANATION OF MESSAGE

UCL = Unconditionally commit the new IM.out image(s) without verifying that the new IM.out image(s) being committed is in all SMs of that configuration. UCL option should only be used under the direction of Alcatel-Lucent Technical Support

a = SM image in which patch space is to be reclaimed. Valid value(s):

SM = Switching module (SM).

SM2K = SM-2000.

Note: Does not include SM-2000 *PowerPC*®.

ALL = SM and SM-2000

b = List of SMs on which the procedure should be run. The list is either the keyword "ALL", or a comma-separated list of SM's. For example, "smlist="1,5,20,3"

Note: SM numbers do not have to be in increasing order.

c = Time to soak the newly compacted IM.out image(s). The format is "HH:MM"(hours:minutes, and must be put in double quotes), or HHMM without double quotes. Default time for ACTIVATE is set to 5 minutes.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. This is followed by one or more UPD:PSR output messages.

5. REFERENCES

Output Message(s):
UPD:PSR
UPD:PATCH
UPD:WARNING

Other Manual(s):

235-105-210 Routine Operations & Maintenance Procedures

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:PSR-B
RELEASE 5E23(1) and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that the patch space recovery (PSR) feature be executed. Before executing these commands, please read the Patch Space Recovery Procedures of the Routine Operations & Maintenance Procedures manual (235-105-210) to familiarize yourself with the feature.

Warning: *This command should be executed during off-hours to minimize impact to switch.*

2. FORMAT

[1]	UPD:PSR,[PREPARE REPORT BKOUT DEACT STATUS],TARGET=a
[2]	UPD:PSR,ACTIVATE,TARGET=a,SMLIST=b[,SOAK=c]
[3]	UPD:PSR,COMMIT,TARGET=a[,UCL]
[4]	UPD:PSR,[RESETSOAK STOP]

3. EXPLANATION OF MESSAGE

UCL = Unconditionally commit the new IM.out image(s) without verifying that the new IM.out image(s) being committed is in all SMs of that configuration. UCL option should only be used under the direction of Alcatel-Lucent Technical Support

a = SM image in which patch space is to be reclaimed. Valid value(s):

SM2K = SM-2000.

Note: Does not include SM-2000 PowerPC®.

ALL = SM-2000

b = List of SMs on which the procedure should be run. The list is either the keyword "ALL", or a comma-separated list of SM's. For example, "smlist="1,5,20,3"

Note: SM numbers do not have to be in increasing order.

c = Time to soak the newly compacted IM.out image(s). The format is "HH:MM"(hours:minutes, and must be put in double quotes), or HHMM without double quotes. Default time for ACTIVATE is set to 5 minutes.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. This is followed by one or more UPD:PSR output messages.

5. REFERENCES

Output Message(s):
UPD:PSR
UPD:PATCH
UPD:WARNING

Other Manual(s):

235-105-210 Routine Operations & Maintenance Procedures

ID UPD:PUMPBWM-A
RELEASE 5E15 - 5E16(1)
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that the temporary software update pump map be used during an initialization of the switching modules (SMs) or communication module processors (CMPs).

Format 1 is to be used for CMP updates only. Format 2 is to be used for SM or peripheral updates. Format 3 is to be used for SM-2000 or peripheral updates that affect SM-2000.

2. FORMAT

[1] UPD:PUMPBWM: CMP;
[2] UPD:PUMPBWM: SM[, CONFIG=a];
[3] UPD:PUMPBWM: SM2K;

3. EXPLANATION OF MESSAGE

a = The configuration type to receive the update. Valid value(s):
0 = Basic.
1 = Standard.
2 = Loaded.

4. SYSTEM RESPONSE

PF = Printout follows.

5. REFERENCES

Input Message(s):

UPD:PMPPERF
UPD:PUMPOFC

Output Message(s):

UPD:PMPPERF
UPD:PUMPBWM
UPD:PUMPOFC

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

ID UPD:PUMPBWM-B
RELEASE 5E16(2) - 5E19(1)
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that the temporary software update pump map be used during an initialization of the switching modules (SMs) or communication module processors (CMPs).

Format 1 is to be used for CMP updates only.

Format 2 is to be used for SM or peripheral updates.

Format 3 is to be used for SM-2000 or peripheral updates that affect SM-2000.

Format 4 is to be used for SM-2000 *PowerPC*¹ upgrade or peripheral updates that affect SM-2000 *PowerPC* upgrade.

2. FORMAT

[1] UPD:PUMPBWM:CMF;

[2] UPD:PUMPBWM:SM[,CONFIG=a];

[3] UPD:PUMPBWM:SM2K;

[4] UPD:PUMPBWM:SM2KFX;

3. EXPLANATION OF MESSAGE

a = The configuration type to receive the update. Valid value(s):

0 = Basic.

1 = Standard.

2 = Loaded.

4. SYSTEM RESPONSE

PF = Printout follows.

5. REFERENCES

Input Message(s):

UPD:PMPPERF

UPD:PUMPOFC

Output Message(s):

UPD:PMPPERF

UPD:PUMPBWM

UPD:PUMPOFC

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

1. Registered trademark of International Business Machines Corp.

ID UPD:PUMPBWM-C
RELEASE 5E20(1) - 5E22(1)
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that the temporary software update pump map be used during an initialization of the switching modules (SMs).

Format 1 is used for SM or peripheral updates.

Format 2 is used for SM-2000 or peripheral updates that affect SM-2000.

Format 3 is used for SM-2000 *PowerPC*® upgrade or peripheral updates that affect SM-2000 *PowerPC* upgrade.

2. FORMAT

[1] UPD:PUMPBWM:SM[,CONFIG=a];

[2] UPD:PUMPBWM:SM2K;

[3] UPD:PUMPBWM:SM2KFX;

3. EXPLANATION OF MESSAGE

a = The configuration type to receive the update. Valid value(s):

0	= Basic.
1	= Standard.
2	= Loaded.

4. SYSTEM RESPONSE

PF = Printout follows.

5. REFERENCES

Input Message(s):

UPD:PMPPERF

UPD:PUMPOFC

Output Message(s):

UPD:PMPPERF

UPD:PUMPBWM

UPD:PUMPOFC

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

ID UPD:PUMPBWM-D
RELEASE 5E23(1) and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that the temporary software update pump map be used during an initialization of the switching modules (SMs).

Format 1 is used for SM-2000 or peripheral updates that affect SM-2000.

Format 2 is used for SM-2000 *PowerPC*® upgrade or peripheral updates that affect SM-2000 *PowerPC* upgrade.

2. FORMAT

[1] UPD:PUMPBWM:SM2K;

[2] UPD:PUMPBWM:SM2KFX;

3. EXPLANATION OF MESSAGE

a = The configuration type to receive the update. Valid value(s):

0 = Basic.

1 = Standard.

2 = Loaded.

4. SYSTEM RESPONSE

PF = Printout follows.

5. REFERENCES

Input Message(s):

UPD:PMPPERF

UPD:PUMPOFC

Output Message(s):

UPD:PMPPERF

UPD:PUMPBWM

UPD:PUMPOFC

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

ID UPD:PUMPOFC-A
RELEASE 5E15 - 5E16(1)
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that the official pump map be used during an initialization of the switching modules (SM or SM-2000) or communication module processors (CMPs).

2. FORMAT

UPD:PUMPOFC:{CMP|SM|SM2K};

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. An output message of UPD:PUMPOFC will follow in response to the request.

5. REFERENCES

Input Message(s):

UPD:PUMPBWM

Output Message(s):

UPD:PUMPOFC

UPD:SYSERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

ID UPD:PUMPOFC-B
RELEASE 5E16(2) - 5E19(1)
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that the official pump map be used during an initialization of the switching modules (SM), SM-2000, SM-2000 *PowerPC*¹ upgrade, or communication module processors (CMPs).

2. FORMAT

UPD:PUMPOFC:{CMP|SM|SM2K|SM2KFX};

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the UPD:PUMPOFC output message.

5. REFERENCES

Input Message(s):

UPD:PUMPBWM

Output Message(s):

UPD:PUMPOFC

UPD:SYSERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

1. Registered trademark of International Business Machines Corp.

ID UPD:PUMPOFC-C
RELEASE 5E20(1) - 5E22(1)
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that the official pump map be used during an initialization of the switching modules (SM), SM-2000, SM-2000 *PowerPC*® upgrade.

2. FORMAT

UPD:PUMPOFC:{SM|SM2K|SM2KFX};

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the UPD:PUMPOFC output message.

5. REFERENCES

Input Message(s):

UPD:PUMPBWM

Output Message(s):

UPD:PUMPOFC

UPD:SYSERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

ID UPD:PUMPOFC-D
RELEASE 5E23(1) and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that the official pump map be used during an initialization of the SM-2000, SM-2000
PowerPC® upgrade.

2. FORMAT

UPD:PUMPOFC:{SM2K|SM2KFX};

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the UPD:PUMPOFC output message.

5. REFERENCES

Input Message(s):

UPD:PUMPBWM

Output Message(s):

UPD:PUMPOFC

UPD:SYSERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

ID UPD:RCVRY-A
RELEASE 5E15 only
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests a program update roll backward or roll forward operation.

The roll forward operation is normally used when it is reasonably certain that the update operation in question did not cause the inconsistency (such as an installed update causing a processor boot). This may result in updates having to be reapplied. The roll backward operation will attempt to remove the update inconsistency by removing temporary updates until consistency is restored.

2. FORMAT

UPD:RCVRY:{BKWD|FRWD}{,ALL|,TARGET=a};

3. EXPLANATION OF MESSAGE

ALL = Recover all processors.

BKWD = Perform backward synchronization; that is, recover from an update inconsistency by removing the appropriate temporary update(s) from the affected processor(s) and file(s).

FRWD = Perform forward synchronization; that is, recover from an update inconsistency by reinstalling the appropriate temporary update(s) in the affected processor(s) and files(s).

a = Type of processor to be recovered. Valid value(s):

- AM = Administrative module.
- CMP = Communication module processor.
- DDMA = Diagnostic direct memory access
- DNUSCC = Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
- DNUSTMX = Transmission multiplexer.
- DSC3 = Digital service circuit - model 3.
- DSP13K = 8K digital signal processor for CDMA protocol handler for voice.
- DSP8K = 8K digital signal processor for CDMA protocol handler for voice.
- DSPEVRC = EVRC digital signal processor for CDMA protocol handler for voice.
- GDSF = Global digital services function - model 3.
- HDSU = Hardware digital service unit.
- HSAS = Service announcement system diagnostic image.
- IDCUCCP = Integrated digital carrier unit (IDCU) common control processor.
- IDCUDLP = IDCU data link processor.
- IDCULSI = IDCU loop side interface.
- IP3S = Protocol handler 3 CCS OIP image.
- IP4F = Frame relay protocol handler version 4 I/O processor.
- IP4I = PH4I operational input/output processor.
- IP4IF = ISDN Frame Relay protocol handler version 4 I/O processor.
- ISLU = Integrated services line unit.
- ISLU2 = Integrated services line unit 2.
- ISTF = Integrated services test function.
- LDSU = Local digital service unit.
- LDSF = Local digital services function - model 3.
- MSGH = Message handler.
- ODMA = Operational direct memory access.
- OIOP = Operational input/output processor.
- PH2A = Protocol handler 2 (PH2) with ACCESS application processor image.
- PH2G = PH2 with GATEWAY application processor image.

PH3C	= Protocol handler 3 (PH3) with COMMON application processor image.
PH3S	= PH3 CCS AP image.
PH4A	= Protocol handler 4 (PH4) access image.
PH4G	= PH4 gateway image.
PH4I	= PH4 with integrated services digital network (ISDN) application processor image.
PHA1A	= Protocol handler for ATM (asynchronous transfer mode).
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice for CDMA (code division multiple access).
PHV3C	= Protocol handler for voice version 3 for CDMA application.
PHV4C	= Protocol handler for voice version 4 for CDMA application.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SMPMH	= Switching module processor message handler (MH) operational image.
SMPMHLB	= Switching module processor MH little boot image.
V3DACP	= ACELP digital signal processor, for TDMA protocol handler for voice.
V4D13K	= 13K DSP, for CDMA protocol handler for voice version 4.
V4D8K	= 8K DSP, for CDMA protocol handler for voice version 4.
V4DACP	= ACELP DSP, for TDMA protocol handler for voice version 4.
V4DEVR1	= EVRC1 DSP, for CDMA protocol handler for voice version 4.
V4DEVR2	= EVRC2 DSP, for CDMA protocol handler for voice version 4.
V4DEVR3	= EVRC3 DSP, for CDMA protocol handler for voice version 4.
V4DVSP	= VSELP DSP, for TDMA protocol handler for voice version 4.
V4DISL	= ISLP DSP, for IS41 TDMA protocol handler for data circuit.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the UPD:RCVRY output message.

5. REFERENCES

Input Message(s):

UPD:PMPPERF
UPD:VFYCON

Output Message(s):

UPD:PMPPERF
UPD:RCVRY
UPD:SYSERR
UPD:USRERR
UPD:VFYCON

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1960 INSTALL BWM

ID UPD:RCVRY-B
RELEASE 5E16(1) only
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests a program update roll backward or roll forward operation.

The roll forward operation is normally used when it is reasonably certain that the update operation in question did not cause the inconsistency (such as an installed update causing a processor boot). This may result in updates having to be reapplied. The roll backward operation will attempt to remove the update inconsistency by removing temporary updates until consistency is restored.

2. FORMAT

UPD:RCVRY:{BKWD|FRWD}{,ALL|,TARGET=a};

3. EXPLANATION OF MESSAGE

ALL = Recover all processors.

BKWD = Perform backward synchronization; that is, recover from an update inconsistency by removing the appropriate temporary update(s) from the affected processor(s) and file(s).

FRWD = Perform forward synchronization; that is, recover from an update inconsistency by reinstalling the appropriate temporary update(s) in the affected processor(s) and files(s).

a = Type of processor to be recovered. Valid value(s):

- AM = Administrative module.
- CMP = Communication module processor.
- DDMA = Diagnostic direct memory access
- DNUSCC = Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
- DNUSTMX = Transmission multiplexer.
- DSC3 = Digital service circuit - model 3.
- DSP13K = 8K digital signal processor (DSP) for code division multiple access (CDMA) protocol handler for voice.
- DSP8K = 8K digital signal processor for CDMA protocol handler for voice.
- DSPEVRC = EVRC digital signal processor for CDMA protocol handler for voice.
- GDSF = Global digital services function - model 3.
- HDSU = Hardware digital service unit.
- HSAS = Service announcement system diagnostic image.
- IDCUCCP = Integrated digital carrier unit (IDCU) common control processor.
- IDCUDLP = IDCU data link processor.
- IDCULSI = IDCU loop side interface.
- IP22 = PH22 common input/output processor (IOP) image.
- IP3S = PH3 CCS IOP image.
- IP4F = Frame relay PH4 IOP image.
- IP4I = ISDN PH4 IOP image.
- IP4IF = ISDN frame relay PH4 IOP image.
- ISLU = Integrated services line unit.
- ISLU2 = Integrated services line unit 2.
- ISTF = Integrated services test function.
- LDSU = Local digital service unit.
- LDSF = Local digital services function - model 3.
- MH32 = Switching module processor message handler 32 (MH32) operational image.

MHEIB	= Switching module processor message handler EIB (MHEIB) operational image.
MHLB	= Switching module processor MH little boot image.
MHPPC	= Switching module processor message handler power PC (MHPPC) operational image.
MHPPCLB	= Switching module processor MHPPC little boot image.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit - 24 channels.
PH2A	= Protocol handler 2 (PH2) ACCESS application processor (AP) image.
PH2G	= PH2 GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
V3DACP	= ACELP DSP for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEV1R1	= EVRC1 DSP, for CDMA for PHV4.
V4DEV2R2	= EVRC2 DSP, for CDMA for PHV4.
V4DEV3R3	= EVRC3 DSP, for CDMA for PHV4.
V4DVSP	= VSELP DSP, for TDMA for PHV4.
V4DISL	= ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K	= 13K DSP, for CDMA for PHV5.
V5D8K	= 8K DSP, for CDMA for PHV5.
V5DACP	= ACELP DSP, for TDMA for PHV5.
V5DEV1R1	= EVRC1 DSP, for CDMA for PHV5.
V5DEV2R2	= EVRC2 DSP, for CDMA for PHV5.
V5DEV3R3	= EVRC3 DSP, for CDMA for PHV5.
V5DVSP	= VSELP DSP, for TDMA PHV5.
V5DISL	= ISLP DSP, for IS41 TDMA PHV5 data circuit.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the UPD:RCVRY output message.

5. REFERENCES

Input Message(s):

UPD:PMPPERF

UPD:VFYCON

Output Message(s):

UPD:PMPPERF

UPD:RCVRY

UPD:SYSERR

UPD:USRERR

UPD:VFYCON

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE

1960 INSTALL BWM

ID UPD:RCVRY-C
RELEASE 5E16(2) - 5E17(1)
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests a program update roll backward or roll forward operation.

The roll forward operation is normally used when it is reasonably certain that the update operation in question did not cause the inconsistency (such as an installed update causing a processor boot). This may result in updates having to be reapplied. The roll backward operation will attempt to remove the update inconsistency by removing temporary updates until consistency is restored.

2. FORMAT

UPD:RCVRY:{BKWD|FRWD}{,ALL|,TARGET=a};

3. EXPLANATION OF MESSAGE

ALL	= Recover all processors.
BKWD	= Perform backward synchronization; that is, recover from an update inconsistency by removing the appropriate temporary update(s) from the affected processor(s) and file(s).
FRWD	= Perform forward synchronization; that is, recover from an update inconsistency by reinstalling the appropriate temporary update(s) in the affected processor(s) and files(s).
a	= Type of processor to be recovered. Valid value(s):
AM	= Administrative module.
CMP	= Communication module processor.
DDMA	= Diagnostic direct memory access
DNUSCC	= Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
DNUTMX	= Transmission multiplexer.
DSC3	= Digital service circuit - model 3.
DSP13K	= 8K digital signal processor (DSP) for code division multiple access (CDMA) protocol handler for voice.
DSP8K	= 8K digital signal processor for CDMA protocol handler for voice.
DSPEVRC	= EVRC digital signal processor for CDMA protocol handler for voice.
GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP22	= PH22 common input/output processor (IOP) image.
IP3S	= PH3 CCS IOP image.
IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MH32	= Switching module processor message handler 32 (MH32) operational image.

MHEIB	= Switching module processor message handler EIB (MHEIB) operational image.
MHLB	= Switching module processor MH little boot image.
MHPPC	= Switching module processor message handler <i>PowerPC</i> ¹ (MHPPC) operational image.
MHPPCLB	= Switching module processor MHPPC little boot image.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit (OIU) - 24 channels.
OIUIP	= Optical interface unit - internet protocol (IP).
PH2A	= Protocol handler 2 (PH2) ACCESS application processor (AP) image.
PH2G	= PH2 GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SM2KFX	= SM-2000 <i>PowerPC</i> upgrade.
V3DACP	= ACELP DSP for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEV1	= EVRC1 DSP, for CDMA for PHV4.
V4DEV2	= EVRC2 DSP, for CDMA for PHV4.
V4DEV3	= EVRC3 DSP, for CDMA for PHV4.
V4DVSP	= VSELP DSP, for TDMA for PHV4.
V4DISL	= ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K	= 13K DSP, for CDMA for PHV5.
V5D8K	= 8K DSP, for CDMA for PHV5.
V5DACP	= ACELP DSP, for TDMA for PHV5.
V5DEV1	= EVRC1 DSP, for CDMA for PHV5.
V5DEV2	= EVRC2 DSP, for CDMA for PHV5.
V5DEV3	= EVRC3 DSP, for CDMA for PHV5.
V5DVSP	= VSELP DSP, for TDMA PHV5.
V5DISL	= ISLP DSP, for IS41 TDMA PHV5 data circuit.

1. Registered trademark of International Business Machines Corp.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the UPD:RCVRY output message.

5. REFERENCES

Input Message(s):

UPD:PMPPERF

UPD:VFYCON

Output Message(s):

UPD:PMPPERF

UPD:RCVRY

UPD:SYSERR

UPD:USRERR

UPD:VFYCON

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE

1960 INSTALL BWM

ID UPD:RCVRY-D
RELEASE 5E18(1) only
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests a program update roll backward or roll forward operation.

The roll forward operation is normally used when it is reasonably certain that the update operation in question did not cause the inconsistency (such as an installed update causing a processor boot). This may result in updates having to be reapplied. The roll backward operation will attempt to remove the update inconsistency by removing temporary updates until consistency is restored.

2. FORMAT

UPD:RCVRY:{BKWD|FRWD}{,ALL|,TARGET=a};

3. EXPLANATION OF MESSAGE

ALL = Recover all processors.

BKWD = Perform backward synchronization; that is, recover from an update inconsistency by removing the appropriate temporary update(s) from the affected processor(s) and file(s).

FRWD = Perform forward synchronization; that is, recover from an update inconsistency by reinstalling the appropriate temporary update(s) in the affected processor(s) and files(s).

a = Type of processor to be recovered. Valid value(s):

- AM = Administrative module.
- CMP = Communication module processor.
- DDMA = Diagnostic direct memory access
- DNUSCC = Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
- DNUTMX = Transmission multiplexer.
- DSC3 = Digital service circuit - model 3.
- DSP13K = 8K digital signal processor (DSP) for code division multiple access (CDMA) protocol handler for voice.
- DSP8K = 8K digital signal processor for CDMA protocol handler for voice.
- DSPEVRC = EVRC digital signal processor for CDMA protocol handler for voice.
- GDSF = Global digital services function - model 3.
- HDSU = Hardware digital service unit.
- HSAS = Service announcement system diagnostic image.
- IDCUCCP = Integrated digital carrier unit (IDCU) common control processor.
- IDCUDLP = IDCU data link processor.
- IDCULSI = IDCU loop side interface.
- IP22 = PH22 common input/output processor (IOP) image.
- IP3S = PH3 CCS IOP image.
- IP4F = Frame relay PH4 IOP image.
- IP4I = ISDN PH4 IOP image.
- IP4IF = ISDN frame relay PH4 IOP image.
- ISLU = Integrated services line unit.
- ISLU2 = Integrated services line unit 2.
- ISTF = Integrated services test function.
- LDSU = Local digital service unit.
- LDSF = Local digital services function - model 3.
- MH32 = Switching module processor message handler 32 (MH32) operational image.

MHEIB	= Switching module processor message handler EIB (MHEIB) operational image.
MHLB	= Switching module processor MH little boot image.
MHPPC	= Switching module processor message handler <i>PowerPC</i> ¹ (MHPPC) operational image.
MHPPCLB	= Switching module processor MHPPC little boot image.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit (OIU) - 24 channels.
OIUIP	= Optical interface unit - internet protocol (IP).
PH2A	= Protocol handler 2 (PH2) ACCESS application processor (AP) image.
PH2G	= PH2 GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
PHV6C	= PHV6 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SM2KFX	= SM-2000 <i>PowerPC</i> upgrade.
V3DACP	= ACELP DSP for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEV1R1	= EVRC1 DSP, for CDMA for PHV4.
V4DEV1R2	= EVRC2 DSP, for CDMA for PHV4.
V4DEV1R3	= EVRC3 DSP, for CDMA for PHV4.
V4DVSP	= VSELP DSP, for TDMA for PHV4.
V4DISL	= ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K	= 13K + EVRC DSP, for CDMA for PHV5.
V5D8K	= 8K DSP, for CDMA for PHV5.
V5DEV1R1	= EVRC1 DSP, for CDMA for PHV5.
V5DEV1R2	= EVRC2 DSP, for CDMA for PHV5.
V5DEV1R3	= EVRC3 DSP, for CDMA for PHV5.
V5DVSP	= VSELP DSP, for TDMA PHV5.
V5DISL	= ISLP DSP, for IS41 TDMA PHV5 data circuit.
V6D13K	= 13K + EVRC DSP, for CDMA for PHV6.

1. Registered trademark of International Business Machines Corp.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the UPD:RCVRY output message.

5. REFERENCES

Input Message(s):

UPD:PMPPERF

UPD:VFYCON

Output Message(s):

UPD:PMPPERF

UPD:RCVRY

UPD:SYSERR

UPD:USRERR

UPD:VFYCON

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE

1960 INSTALL BWM

ID UPD:RCVRY-E
RELEASE 5E19(1) only
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests a program update roll backward or roll forward operation.

The roll forward operation is normally used when it is reasonably certain that the update operation in question did not cause the inconsistency (such as an installed update causing a processor boot). This may result in updates having to be reapplied. The roll backward operation will attempt to remove the update inconsistency by removing temporary updates until consistency is restored.

2. FORMAT

UPD:RCVRY:{BKWD|FRWD}{,ALL|,TARGET=a};

3. EXPLANATION OF MESSAGE

ALL = Recover all processors.

BKWD = Perform backward synchronization; that is, recover from an update inconsistency by removing the appropriate temporary update(s) from the affected processor(s) and file(s).

FRWD = Perform forward synchronization; that is, recover from an update inconsistency by reinstalling the appropriate temporary update(s) in the affected processor(s) and files(s).

a = Type of processor to be recovered. Valid value(s):

AM = Administrative module.

CMP = Communication module processor.

DDMA = Diagnostic direct memory access

DNUSCC = Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.

DNUSTMX = Transmission multiplexer.

DSC3 = Digital service circuit - model 3.

DSP13K = 8K digital signal processor (DSP) for code division multiple access (CDMA) protocol handler for voice.

DSP8K = 8K digital signal processor for CDMA protocol handler for voice.

DSPEVRC = EVRC digital signal processor for CDMA protocol handler for voice.

GDSF = Global digital services function - model 3.

HDSU = Hardware digital service unit.

HSAS = Service announcement system diagnostic image.

IDCUCCP = Integrated digital carrier unit (IDCU) common control processor.

IDCUDLP = IDCU data link processor.

IDCULSI = IDCU loop side interface.

IP22 = PH22 common input/output processor (IOP) image.

IP3S = PH3 CCS IOP image.

IP4F = Frame relay PH4 IOP image.

IP4I = ISDN PH4 IOP image.

IP4IF = ISDN frame relay PH4 IOP image.

ISLU = Integrated services line unit.

ISLU2 = Integrated services line unit 2.

ISTF = Integrated services test function.

LDSU = Local digital service unit.

LDSF = Local digital services function - model 3.

MH32 = Switching module processor message handler 32 (MH32) operational image.

MHEIB	= Switching module processor message handler EIB (MHEIB) operational image.
MHLB	= Switching module processor MH little boot image.
MHPPC	= Switching module processor message handler <i>PowerPC</i> ¹ (MHPPC) operational image.
MHPPCLB	= Switching module processor MHPPC little boot image.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit (OIU) - 24 channels.
OIUIP	= Optical interface unit - internet protocol (IP).
PH2A	= Protocol handler 2 (PH2) ACCESS application processor (AP) image.
PH2G	= PH2 GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PHE3B	= Protocol handler for IP backhaul image.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
PHV6C	= PHV6 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SM2KFX	= SM-2000 <i>PowerPC</i> upgrade.
V3DACP	= ACELP DSP for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEV1R1	= EVRC1 DSP, for CDMA for PHV4.
V4DEV1R2	= EVRC2 DSP, for CDMA for PHV4.
V4DEV1R3	= EVRC3 DSP, for CDMA for PHV4.
V4DVSP	= VSELP DSP, for TDMA for PHV4.
V4DISL	= ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K	= 13K + EVRC DSP, for CDMA for PHV5.
V5D8K	= 8K DSP, for CDMA for PHV5.
V5DEV1R1	= EVRC1 DSP, for CDMA for PHV5.
V5DEV1R2	= EVRC2 DSP, for CDMA for PHV5.
V5DEV1R3	= EVRC3 DSP, for CDMA for PHV5.
V5DVSP	= VSELP DSP, for TDMA PHV5.
V5DISL	= ISLP DSP, for IS41 TDMA PHV5 data circuit.
V6D13K	= 13K + EVRC DSP, for CDMA for PHV6.

1. Registered trademark of International Business Machines Corp.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the UPD:RCVRY output message.

5. REFERENCES

Input Message(s):

UPD:PMPPERF

UPD:VFYCON

Output Message(s):

UPD:PMPPERF

UPD:RCVRY

UPD:SYSERR

UPD:USRERR

UPD:VFYCON

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE

1960 INSTALL BWM

ID UPD:RCVRY-F
RELEASE 5E20(1) and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests a program update roll backward or roll forward operation.

The roll forward operation is normally used when it is reasonably certain that the update operation in question did not cause the inconsistency (such as an installed update causing a processor boot). This may result in updates having to be reapplied. The roll backward operation will attempt to remove the update inconsistency by removing temporary updates until consistency is restored.

2. FORMAT

UPD:RCVRY:{BKWD|FRWD}{,ALL|,TARGET=a};

3. EXPLANATION OF MESSAGE

ALL = Recover all processors.

BKWD = Perform backward synchronization; that is, recover from an update inconsistency by removing the appropriate temporary update(s) from the affected processor(s) and file(s).

FRWD = Perform forward synchronization; that is, recover from an update inconsistency by reinstalling the appropriate temporary update(s) in the affected processor(s) and files(s).

a = Type of processor to be recovered. Refer to the APP:TARGETS appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the UPD:RCVRY output message.

5. REFERENCES

Input Message(s):
 UPD:PMPPERF
 UPD:VFYCON

Output Message(s):
 UPD:PMPPERF
 UPD:RCVRY
 UPD:SYSERR
 UPD:USRERR
 UPD:VFYCON

Input Appendix(es):
 APP:TARGETS

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1990 INSTALL BWM

ID UPD:RDTA
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

To update the timer value for a given active remote digital test access (RDTA) session and to change the duration period.

This input message will cause the duration timer to be reinitialized, allowing the active RDTA session to continue for another duration interval. The duration interval can also be changed by including the optional parameter DUR. The timer may be reset for any session at any time during the session.

Thirty minutes before the termination interval specified on the EXC:RDTA input message, a warning UPD:RDTA output message will print to indicate that the RDTA session will be terminated in 30 minutes. The user may keep the active RDTA session alive by inputting this message within 30 minutes.

The active RDTA session will be updated based on the session number returned in the EXC:RDTA output message after the connection was setup. The session number must either be known by the user attempting maintenance or it can be found by exercising the OP:RDTA input message to receive information on all sessions (SES=ALL option). This session number input verifies the user's knowledge of the session's status to the switch when changes are made affecting the session.

2. FORMAT

UPD:RDTA,SES=a[,DUR=b];

3. EXPLANATION OF MESSAGE

- a = Session number of the active RDTA session for which the duration timer is to be reinitialized.
- b = The maximum duration for the RDTA session. The valid values are 1 to 7 (days) or 0 (infinite). If no new period (DUR) is specified on the input message, the session will be prolonged by the original period from the time the input message is executed.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by a UPD:RDTA output message.

5. REFERENCES

Input Message(s):

EXC:RDTA
OP:RDTA
STP:RDTA
VFY:RDTA

Output Message(s):

EXC:RDTA
OP:RDTA
STP:RDTA
UPD:RDTA
VFY:RDTA

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-900-301 *ISDN Basic Rate Interface Specification*

ID UPD:REBOOT
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that the software update database be updated to reflect the backing out of any temporary administrative module (AM) updates active at the time of the reboot.

The software update processes will be informed automatically as part of a normal boot that a system reboot has occurred. Whenever a level 2 (or higher) reboot occurs, all temporary updates are, by definition, backed out.

2. FORMAT

UPD:REBOOT;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by one or more UPD:REBOOT output message(s).

RL = Retry later. Another UPD input message is active.

5. REFERENCES

Input Message(s):

UPD:BKOUT
UPD:DISPLAY
UPD:UPNAME

Output Message(s):

UPD:DISPLAY
UPD:SYSERR
UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)
1960 (INSTALL BWM)

ID UPD:RECOVERY
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests a program update roll backward or roll forward operation.

2. FORMAT

UPD:RECOVERY:{BKWD|FRWD};

3. EXPLANATION OF MESSAGE

BKWD = Perform backward synchronization; that is, recover from an update inconsistency by removing the appropriate update(s) from the affected processor(s) and file(s).

FRWD = Perform forward synchronization; that is, recover from an update inconsistency by reinstalling the appropriate update(s) to the affected processor(s) and files(s).

4. SYSTEM RESPONSE

OK = Good. The request has been accepted. Followed by a UPD:RCVRY output message.

5. REFERENCES

Input Message(s):
UPD:RCVRY

Output Message(s):
UPD:RCVRY
UPD:SYSERR

MCC Display Page(s):
1950 (PROGRAM UPDATE MAINTENANCE)
1960 (INSTALL BWM)

ID UPD:REDUCE
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests smaller, more concise software update database entries after all updates on the administrative module (AM) have been made official. The smaller entries are placed in a backup update database (/etc/Bud). The existing software update database (/etc/Cud) file is reduced so that the update entries for those SUs that can still be backed out normally or through an official backout (UPD:BOLO) are kept in the main database (/etc/Cud), while all other entries are saved in a more concise format in the backup update database.

2. FORMAT

UPD:REDUCE[:PTLD];

3. EXPLANATION OF MESSAGE

PTLD = This option will reset the software update sequence number to zero.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by UPD:REDUCE output message.

RL = Retry later. Another UPD input message is active.

5. REFERENCES

Output Message(s):

UPD:REDUCE
UPD:SYSERR
UPD:USRERR
UPD:WARNING

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)
1960 (INSTALL BWM)

ID UPD:RESET-3B
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that if an operation to an administrative module (AM) field update fails, that update's status may be "reset" to a previously "accepted" state.

2. FORMAT

UPD:RESET[,VLEV=a];

3. EXPLANATION OF MESSAGE

a = The flag, 'a', requests additional output from a Field Update process. Verbose flags may be set for UPD and ucm. The flags must be entered in the order the processes are listed. To turn on the verbose output for ucm, UPD's flag must be used or set to zero.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by UPD output messages.

5. REFERENCES

Input Message(s):

UPD:DISPLAY
UPD:OMIT
UPD:PERM

Output Message(s):

UPD:APPLY
UPD:BKOUT
UPD:BLDBOOT
UPD:CLR
UPD:DISPLAY
UPD:FTRC-3B
UPD:GEN-APPL
UPD:GEN-BACKOUT
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:ISG
UPD:OMDB
UPD:REDUCE
UPD:REPT
UPD:SYSERR
UPD:UPNM
UPD:USRERR
UPD:VFY

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):
FIELD UPDATE PAGE

ID UPD:RESET
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that the soak timer duration (TM) of the software update (SU) that is currently soaking be updated, or that the soak timer for the SU that is currently soaking be stopped (ABORT), or that the line number (LINE) to be executed next for the SU loaded on the Master Control Center (MCC) 1960 page be changed.

2. FORMAT

UPD:RESET:[LINE=a|TM=b-c|ABORT];

3. EXPLANATION OF MESSAGE

ABORT = Stop the soak timer.

a = Reset execution to a specified line number displayed on the "1960" program update installation page (MSGS file). Line number is a 3-digit number. The default is 1 (first line of the MSGS file).

b = Number of hours in the software update soak interval (0-99).

c = Number of minutes in the software update soak interval (0-59).

4. SYSTEM RESPONSE

OK = Good. The message was accepted and the action completed.

5. REFERENCES

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)

1960 (INSTALL BWM)

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID UPD:SET
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests the setting of the SU (Software Update), the SOAK timer and the completed stage where the installation execution is to stop.

Format 1 is used for setting the SU name that will identify the package to be scheduled for installation by the automation process. Note: To be used with UPD:INSTL:START; typically used internal to SU automation. Format 2 is used for stopping the SU installation process when either the SOAK stage or the PREPARE stage has completed. Format 3 is used to pre-set the SOAK time interval for SU installation. to pre-set the SOAK time interval for SU installation"

Warning: *Not to be confused with UPD:SKTMR:DEFLT; Typically used internal to SU automation; To be used with UPD:INSTL:START*

2. FORMAT

[1] UPD:SET:SU="a";
[2] UPD:SET:STOP=b;
[3] UPD:SET:TIMER="c";

3. EXPLANATION OF MESSAGE

a = SU name (maximum of 10 characters).
b = Stage. Valid value(s):
 AFTSK = After the soak stage.
 AFTPR = After the prepare stage.
c = Timer duration. In the form, HH:MM Total duration can not exceed 72 hours.
 HH = Number of hours that the soak timer duration should be set for.
 MM = Number of minutes that the soak timer duration should be set for.

4. SYSTEM RESPONSE

NG = No good.
PFf = Print follows.

5. REFERENCES

Input Message(s):
UPD:INSTL

Output Message(s):
UPD:SYSERR
UPD:USRERR

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
MCC Display Page(s):
(SU INSTALLATION)

ID UPD:SKTMR
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that the SOAK timer either have its default time changed, timer restarted, timer report printed or timer canceled.

2. FORMAT

UPD:SKTMR:a;

3. EXPLANATION OF MESSAGE

- a = Soak timer action. Valid value(s):
- | | |
|---------|---|
| ABORT | = Cancel the soak timer. The soak timer must be restarted and allowed to complete before an SU can be made official. |
| DEFLT=b | = Change the default time used by the soak timer. Changing the default timer will have no effect on a running soak timer. |
| PRINT | = Print the soak timer report to the ROP. |
| RESET=b | = Restart the soak timer with a given duration. This will not affect the default time. |
- b = Duration in the form "HH:MM". Total duration is not to exceed 72 hours.
- | | |
|----|----------------------|
| HH | = Number of hours. |
| MM | = Number of minutes. |

4. SYSTEM RESPONSE

- NG = No good.
PF = Print follows.

5. REFERENCES

Output Message(s):

UPD:SYSERR

UPD:USRERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

SU INSTALLATION

ID UPD:SSD
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION AEWNC

1. PURPOSE

Requests that the shared secret data (SSD) associated with an *Air Extension*SM wireless subscriber be updated. The SSD is subscriber specific data that is stored in both the wireless network controller (WNC) and every subscriber's wireless phone. This data is used for authentication, to prevent access by unauthorized subscribers, and for voice encryption, that provides call security.

This message may also be executed as part of the routine maintenance performed for an *Air Extension* system to ensure maximum system security.

Caution: It may be useful to execute the OP:WCPE input message for the wireless subscriber before executing the UPD:SSD input message. Output from the OP:WCPE message may be needed later to help determine the results of an SSD update. Refer to the complete SSD update procedure in the *Air Extension* Reference Guide.

2. FORMAT

UPD:SSD,DN=a;

3. EXPLANATION OF MESSAGE

a = 10 digit wireless directory number (DN).

4. SYSTEM RESPONSE

RL = Retry later. The request has been denied, probably due to system load.

PF = Printout follows. The request has been accepted and is followed by an UPD:SSD output message.

5. REFERENCES

Input Message(s):
OP:WCPE

Output Message(s):
OP:WCPE
REPT:AUTH
UPD:SSD

Other Manual(s):

230-701-100 **Air Extension** Reference Guide
230-701-120 **Air Extension** User Guide

ID UPD:STOP-INSTL
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Request that the SU installation process be stopped. The process will finish the current command line and then stop at that point."

2. FORMAT

UPD:STOP:INSTL;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NG = No good.

PF = Print follows.

5. REFERENCES

Output Message(s):

UPD:SYSERR

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

SU INSTALLATION

ID UPD:STOP-SOAK
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

This input message should be used in conjunction with easy software update (SU) installation. Refer to Master Control Center (MCC) page 1940. It requests that the easy SU installation process stop the SU installation after the SOAK section of the SU has been completed. The input message should be used BEFORE easy SU installation is started using the UPD:START:EASYBWM input message.

2. FORMAT

UPD:STOP:SOAK;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

OK = Good. The request has been accepted.

5. REFERENCES

Input Message(s):

UPD:CHG-INST

UPD:START-EASY

Output Message(s):

UPD:EASY-BWM

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1940 (EASY BWM INSTALLATION)

1950 (PROGRAM UPDATE MAINTENANCE)

1960 (INSTALL BWM)

ID UPD:UPDCON
RELEASE 5E15 and later
COMMAND GROUP N/A
APPLICATION 5,3B

1. PURPOSE

Requests verification of software update consistency and a summary of any software update inconsistencies that exist in the system.

2. FORMAT

UPD:UPDCON;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

OK = Good. The request was accepted and is in progress. Followed by a UPD:VFYCON output message.

5. REFERENCES

Input Message(s):
UPD:VFYCON

Output Message(s):
UPD:VFYCON

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):
1940 (EASY BWM INSTALLATION)
1950 (PROGRAM UPDATE MAINTENANCE)
1960 (INSTALL BWM)

ID UPD:UPDDSPY-A
RELEASE 5E15 - 5E17(1)
COMMAND GROUP N/A
APPLICATION 5

1. PURPOSE

Requests information about updates to the system through software update procedures.

Format 1 requests update information relating to a specific software update name.

Format 2 requests update information about all official (OFC) or temporary (TMP) updates.

Format 3 requests information on all (ALL) software updates in the software update database. The BACKLOG option retrieves concise software update database entries of all updates stored in /etc/Bud, the backup update database. Refer to the UPD:DISPLAY output message.

2. FORMAT

[1] UPD:UPDDSPY:BWM[=b];
[2] UPD:UPDDSPY:a[,V];
[3] UPD:UPDDSPY:ALL[,BACKLOG|,SUM|,V];

3. EXPLANATION OF MESSAGE

- a = Update type. Valid value(s):
OFC = Official update.
TMP = Temporary update.
- b = Software update name specified as BWMyy-nnnn, TMPyy-nnnnn (temporary) or CFTyy-nnnn where BWM, TMP and CFT identify the category of software update, yy is the last two digits of the year issued, and nnnn is the sequence number identifying the software update.

4. SYSTEM RESPONSE

OK = Good. The request has been accepted and a UPD:DISPLAY output message will follow.

5. REFERENCES

Input Message(s):

UPD:DISPLAY

UPD:REDUCE

Output Message(s):

UPD:DISPLAY

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)

ID UPD:UPDDSPY-B
RELEASE 5E18(1) and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests information about updates to the system through software update procedures.

Format 1 requests update information relating to a specific software update name.

Format 2 requests update information about all official or temporary updates.

Format 3 requests information on all (ALL) software updates in the software update database. The BACKLOG option retrieves concise software update database entries of all updates stored in /etc/Bud, the backup update database. Refer to the UPD:DISPLAY output message.

2. FORMAT

[1] UPD:UPDDSPY:BWM[=b];

[2] UPD:UPDDSPY:a[,V];

[3] UPD:UPDDSPY:ALL[,BACKLOG[,SUM[,V];

3. EXPLANATION OF MESSAGE

a = Update type. Valid value(s):

OFC = Official update.

TMP = Temporary update.

b = Software update name specified as BWMrr-nnnn, TMPyy-nnnn (temporary) or CFTyy-nnnn. Valid value(s):

BWM = Indicates an off-site originated update.

CFT = Indicates an on-site originated update.

TMP = Indicates an off-site originated update.

yy = The last two digits of the year issued.

rr = The release number [for example, 18 for 5E18(1)].

nnnn = The sequence number identifying the software update.

4. SYSTEM RESPONSE

OK = Good. The request has been accepted. Followed by the UPD:DISPLAY output message.

5. REFERENCES

Input Message(s):

UPD:DISPLAY

UPD:REDUCE

Output Message(s):

UPD:DISPLAY

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE

ID UPD:VERSION-A
RELEASE 5E15 - 5E17(1)
COMMAND GROUP MAINT
APPLICATION 5,3B

1. PURPOSE

Requests update of the text version and/or software update level of the file system partitions. This information can be used to identify the partitions' text version and software update level should they become detached from the equipment configuration data base (ECD). Normally, this message is only entered by the software update updating procedure.

Format 1 is used to apply (advance) the version.

Format 2 is used to backout a version.

2. FORMAT

[1] UPD:VERSION,APPLY="a"[,UCL];
[2] UPD:VERSION,BKOUT="b"[,UCL];

3. EXPLANATION OF MESSAGE

UCL = Unconditional. This option is provided so the message is accepted if the software update procedure is executed with the UCL append option. It has no effect.

a = A quoted string indicating the new text version and software update level, with the format "ccc(d)ee.ff ggghh-iiii" where:

ccc = The software release (such as '5e2').
d = The issue (such as '1').
ee = The release (such as '03').
ff = The point (such as '04').
ggg = The type (such as, 'BWM', 'CFT' or 'TMP').
hh = The year (such as '85').
iiii = The sequence number (such as '0123').

For example: "5e2(1)03.04 BWM85-0123"

To be consistent with system documentation, the release, point and year are padded with a leading zero, if need be, to obtain two digits. Likewise, the sequence number is padded with leading zeros to obtain four digits.

b = A quoted string indicating the previous text version and software update level. Refer to the version string format defined in variable 'a'.

4. SYSTEM RESPONSE

NG = No good. May also include:

x = software release, issue, release point, type, year or sequence number. This item was not present in the version string. Correct and re-enter message.

OK = Good. Command accepted, no output message will follow.

PF = Printout follows. Command accepted, and a UPD:VERSION output message will follow.

5. REFERENCES

Input Message(s):
OP:VERSION

Output Message(s):
OP:VERSION
UPD:VERSION

ID UPD:VERSION-B
RELEASE 5E18(1) and later
COMMAND GROUP MAINT
APPLICATION 5,3B

1. PURPOSE

Requests update of the text version and/or software update level of the file system partitions. This information can be used to identify the partitions' text version and software update level should they become detached from the equipment configuration database (ECD). Normally, this message is only entered by the software update updating procedure.

Format 1 is used to apply (advance) the version.

Format 2 is used to backout a version.

2. FORMAT

[1] UPD:VERSION,APPLY="a"[,UCL];

[2] UPD:VERSION,BKOUT="b"[,UCL];

3. EXPLANATION OF MESSAGE

UCL = Unconditional. This option is provided so the message is accepted if the software update procedure is executed with the UCL append option. It has no effect.

a = A quoted string indicating the new text version and software update level, with the format "cccc(d)ee.ff ggghh-iiii" where:

cccc = The software release (such as '5e18').
d = The issue (such as '1').
ee = The release (such as '03').
ff = The point (such as '04').
ggg = The type (such as, 'BWM', 'CFT' or 'TMP').
hh = The release [such as '18' for 5E18(1)] for BWM software updates.
hh = The year (such as '85') for CFT or TMP software updates.
iiii = The sequence number (such as '0123').

For example:

"5e18(1)03.04 BWM18-0123"

"5e18(1)03.04 CFT04-0123"

To be consistent with system documentation, the release, point and year are padded with a leading zero, if need be, to obtain two digits. Likewise, the sequence number is padded with leading zeros to obtain four digits.

b = A quoted string indicating the previous text version and software update level. Refer to the version string format defined in variable 'a'.

4. SYSTEM RESPONSE

NG = No good. May also include:

x = Software release, issue, release point, type, year or sequence number. This item was not present in the version string. Correct and re-enter message.

OK = Good. Command accepted, no output message will follow.

PF = Printout follows. Command accepted, and a UPD:VERSION output message will follow.

5. REFERENCES

Input Message(s):
OP:VERSION

Output Message(s):
OP:VERSION
UPD:VERSION

ID UPD:VFY-A
RELEASE 5E15 - 5E17(1)
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that software updates which are updates in the field update directory be updated. An update may be verified any number of times. Update filenames may also be displayed from this message.

2. FORMAT

UPD:VFY:{BWM="a"[-"a"[-"a"...]]|ALL}{[,BSDIR="b"][,LIST];

3. EXPLANATION OF MESSAGE

- ALL = Verify all software updates in the base directory that match the software update format in variable 'a'.
- LIST = List all filenames received for the specified BWM(s).
- a = Software update name. A list of 1 to 10 BWM names may be given, specified as BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn where BWM, TMP, and CFT identify the category of software update, yy is the last two digits of the year, and nnnn is the sequence number identifying the software update. Refer to the Routine Operations and Maintenance manual for instructions on entering a list of names (" " is required).
- b = Base directory name. Refer to the Routine Operations and Maintenance manual for definitions of directory, pathname, and file. The default is /etc/bwm.

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted. Followed by a UPD:VFY output message.

5. REFERENCES

Output Message(s):

UPD:SYSERR
UPD:USRERR
UPD:VFYCON

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)
1960 (INSTALL BWM)

ID UPD:VFY-B
RELEASE 5E18(1) and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests that software updates which are updates in the field update directory be updated. An update may be verified any number of times. Update filenames may also be displayed from this message.

2. FORMAT

UPD:VFY:{BWM="a"[-"a"[-"a"...]]|ALL}[,BSDIR="b"][,LIST];

3. EXPLANATION OF MESSAGE

ALL = Verify all software updates in the base directory that match the software update format in variable 'a'.

LIST = List all filenames received for the specified BWM(s).

a = Software update name, specified as BWMrr-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn. Valid value(s):

BWM = Indicates an off-site originated update.

CFT = Indicates an on-site originated update.

TMP = Indicates an off-site originated update.

yy = The last two digits of the year.

rr = The release number [for example, 18 for 5E18(1)].

nnnn = The sequence number identifying the software update.

Note: Refer to the Routine Operations and Maintenance manual for instructions on entering a list of names (" " is required).

b = Base directory name. Refer to the Routine Operations and Maintenance manual for definitions of directory, pathname, and file. The default is /etc/bwm.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the UPD:VFY output message.

5. REFERENCES

Output Message(s):

UPD:SYSERR

UPD:USRERR

UPD:VFYCON

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE

1960 INSTALL BWM

ID UPD:VFYCON-A
RELEASE 5E15 only
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests verification of update consistency and a summary of all update inconsistencies that exist in the system.

2. FORMAT

UPD:VFYCON:{ALL|TARGET=a};

3. EXPLANATION OF MESSAGE

ALL = Verify update consistency of all processor images.

a = The processor image whose consistency is to be verified. Valid value(s):

AMPATH	= Office specific update in the AM.
CMP	= Communication module processor.
DDMA	= Diagnostic direct memory access
DNUSCC	= Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
DNUSTMX	= Transmission multiplexer.
DSC3	= Digital service circuit - model 3.
DSP13K	= 8K digital signal processor for CDMA protocol handler for voice.
DSP8K	= 8K digital signal processor for CDMA protocol handler for voice.
DSPEVRC	= EVRC digital signal processor for CDMA protocol handler for voice.
GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP3S	= Protocol handler 3 CCS OIP image.
IP4F	= Frame relay protocol handler version 4 I/O processor.
IP4I	= PH4I operational input/output processor.
IP4IF	= ISDN Frame Relay protocol handler version 4 I/O processor.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
PH2A	= Protocol handler 2 (PH2) with ACCESS application processor image.
PH2G	= PH2 with GATEWAY application processor image.
PH3C	= Protocol handler 3 (PH3) with COMMON application processor image.
PH3S	= PH3 CCS AP image.
PH4A	= Protocol handler 4 (PH4) access image.
PH4G	= PH4 gateway image.
PH4I	= PH4 with integrated services digital network (ISDN) application processor image.
PHA1A	= Protocol handler for ATM (asynchronous transfer mode).
PI	= Packet interface.
PI2	= Packet interface unit 2.

PHV1C	= Protocol handler for voice for CDMA (code division multiple access).
PHV3C	= Protocol handler for voice version 3 for CDMA application.
PHV4C	= Protocol handler for voice version 4 for CDMA application.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SMPMH	= Switching module processor message handler (MH) operational image.
SMPMHLB	= Switching module processor MH little boot image.
V3DACP	= ACELP digital signal processor, for TDMA protocol handler for voice.
V4D13K	= 13K DSP, for CDMA protocol handler for voice version 4.
V4D8K	= 8K DSP, for CDMA protocol handler for voice version 4.
V4DACP	= ACELP DSP, for TDMA protocol handler for voice version 4.
V4DEV1	= EVRC1 DSP, for CDMA protocol handler for voice version 4.
V4DEV2	= EVRC2 DSP, for CDMA protocol handler for voice version 4.
V4DEV3	= EVRC3 DSP, for CDMA protocol handler for voice version 4.
V4DVSP	= VSELP DSP, for TDMA protocol handler for voice version 4.
V4DISL	= ISLP DSP, for IS41 TDMA protocol handler for data circuit.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the UPD:VFYCON output message.

5. REFERENCES

Input Message(s):
UPD:PMPPERF

Output Message(s):
UPD:PMPPERF
UPD:SYSERR
UPD:USRERR
UPD:VFYCON

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950	PROGRAM UPDATE MAINTENANCE
1960	INSTALL BWM

ID UPD:VFYCON-B
RELEASE 5E16(1) only
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests verification of update consistency and a summary of all update inconsistencies that exist in the system.

2. FORMAT

UPD:VFYCON:{ALL|TARGET=a};

3. EXPLANATION OF MESSAGE

ALL = Verify update consistency of all processor images.

a = The processor image whose consistency is to be verified. Valid value(s):

AMPATH	= Office specific update in the AM.
CMP	= Communication module processor.
DDMA	= Diagnostic direct memory access
DNUSCC	= Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
DNUSTMX	= Transmission multiplexer.
DSC3	= Digital service circuit - model 3.
DSP13K	= 8K digital signal processor (DSP) for code division multiple access (CDMA) protocol handler for voice.
DSP8K	= 8K digital signal processor for CDMA protocol handler for voice.
DSPEVRC	= EVRC digital signal processor for CDMA protocol handler for voice.
GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP22	= PH22 common input/output processor (IOP) image.
IP3S	= PH3 CCS IOP image.
IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MH32	= Switching module processor message handler 32 (MH32) operational image.
MHEIB	= Switching module processor message handler EIB (MHEIB) operational image.
MHLB	= Switching module processor MH little boot image.
MHPPC	= Switching module processor message handler power PC (MHEPPC) operational image.
MHPPCLB	= Switching module processor MHPPC little boot image.
MSGH	= Message handler.
ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit - 24 channels.

PH2A	= Protocol handler 2 (PH2) ACCESS application processor (AP) image.
PH2G	= PH2 GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
V3DACP	= ACELP DSP for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEV1R1	= EVRC1 DSP, for CDMA for PHV4.
V4DEV1R2	= EVRC2 DSP, for CDMA for PHV4.
V4DEV1R3	= EVRC3 DSP, for CDMA for PHV4.
V4DVSP	= VSELP DSP, for TDMA for PHV4.
V4DISL	= ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K	= 13K DSP, for CDMA for PHV5.
V5D8K	= 8K DSP, for CDMA for PHV5.
V5DACP	= ACELP DSP, for TDMA for PHV5.
V5DEV1R1	= EVRC1 DSP, for CDMA for PHV5.
V5DEV1R2	= EVRC2 DSP, for CDMA for PHV5.
V5DEV1R3	= EVRC3 DSP, for CDMA for PHV5.
V5DVSP	= VSELP DSP, for TDMA PHV5.
V5DISL	= ISLP DSP, for IS41 TDMA PHV5 data circuit.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the UPD:VFYCON output message.

5. REFERENCES

Input Message(s):
UPD:PMPPERF

Output Message(s):
UPD:PMPPERF
UPD:SYSERR
UPD:USRERR
UPD:VFYCON

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950	PROGRAM UPDATE MAINTENANCE
1960	INSTALL BWM

ID UPD:VFYCON-C
RELEASE 5E16(2) - 5E17(1)
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests verification of update consistency and a summary of all update inconsistencies that exist in the system.

2. FORMAT

UPD:VFYCON:{ALL|TARGET=a};

3. EXPLANATION OF MESSAGE

ALL = Verify update consistency of all processor images.

a = The processor image whose consistency is to be verified. Valid value(s):

AMPATH	= Office specific update in the AM.
CMP	= Communication module processor.
DDMA	= Diagnostic direct memory access
DNUSCC	= Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
DNUSTMX	= Transmission multiplexer.
DSC3	= Digital service circuit - model 3.
DSP13K	= 8K digital signal processor (DSP) for code division multiple access (CDMA) protocol handler for voice.
DSP8K	= 8K digital signal processor for CDMA protocol handler for voice.
DSPEVRC	= EVRC digital signal processor for CDMA protocol handler for voice.
GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP22	= PH22 common input/output processor (IOP) image.
IP3S	= PH3 CCS IOP image.
IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MH32	= Switching module processor message handler 32 (MH32) operational image.
MHEIB	= Switching module processor message handler EIB (MHEIB) operational image.
MHLB	= Switching module processor MH little boot image.
MHPPC	= Switching module processor message handler <i>PowerPC</i> ¹ (MHEPPC) operational image.
MHPPCLB	= Switching module processor MHPPC little boot image.
MSGH	= Message handler.

1. Registered trademark of International Business Machines Corp.

ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit (OIU) - 24 channels.
OIUIP	= Optical interface unit - internet protocol (IP).
PH2A	= Protocol handler 2 (PH2) ACCESS application processor (AP) image.
PH2G	= PH2 GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SM2KFX	= SM-2000 <i>PowerPC</i> upgrade.
V3DACP	= ACELP DSP for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEV1R1	= EVRC1 DSP, for CDMA for PHV4.
V4DEV1R2	= EVRC2 DSP, for CDMA for PHV4.
V4DEV1R3	= EVRC3 DSP, for CDMA for PHV4.
V4DVSP	= VSELP DSP, for TDMA for PHV4.
V4DISL	= ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K	= 13K DSP, for CDMA for PHV5.
V5D8K	= 8K DSP, for CDMA for PHV5.
V5DACP	= ACELP DSP, for TDMA for PHV5.
V5DEV1R1	= EVRC1 DSP, for CDMA for PHV5.
V5DEV1R2	= EVRC2 DSP, for CDMA for PHV5.
V5DEV1R3	= EVRC3 DSP, for CDMA for PHV5.
V5DVSP	= VSELP DSP, for TDMA PHV5.
V5DISL	= ISLP DSP, for IS41 TDMA PHV5 data circuit.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the UPD:VFYCON output message.

5. REFERENCES

Input Message(s):
UPD:PMPPERF

Output Message(s):
UPD:PMPPERF

UPD:SYSERR
UPD:USRERR
UPD:VFYCON

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950	PROGRAM UPDATE MAINTENANCE
1960	INSTALL BWM

ID UPD:VFYCON-D
RELEASE 5E18(1) only
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests verification of update consistency and a summary of all update inconsistencies that exist in the system.

2. FORMAT

UPD:VFYCON:{ALL|TARGET=a};

3. EXPLANATION OF MESSAGE

ALL = Verify update consistency of all processor images.

a = The processor image whose consistency is to be verified. Valid value(s):

AMPATH	= Office specific update in the AM.
CMP	= Communication module processor.
DDMA	= Diagnostic direct memory access
DNUSCC	= Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
DNUSTMX	= Transmission multiplexer.
DSC3	= Digital service circuit - model 3.
DSP13K	= 8K digital signal processor (DSP) for code division multiple access (CDMA) protocol handler for voice.
DSP8K	= 8K digital signal processor for CDMA protocol handler for voice.
DSPEVRC	= EVRC digital signal processor for CDMA protocol handler for voice.
GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP22	= PH22 common input/output processor (IOP) image.
IP3S	= PH3 CCS IOP image.
IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MH32	= Switching module processor message handler 32 (MH32) operational image.
MHEIB	= Switching module processor message handler EIB (MHEIB) operational image.
MHLB	= Switching module processor MH little boot image.
MHPPC	= Switching module processor message handler <i>PowerPC</i> ¹ (MHEPPC) operational image.
MHPPCLB	= Switching module processor MHPPC little boot image.
MSGH	= Message handler.

1. Registered trademark of International Business Machines Corp.

ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit (OIU) - 24 channels.
OIUIP	= Optical interface unit - internet protocol (IP).
PH2A	= Protocol handler 2 (PH2) ACCESS application processor (AP) image.
PH2G	= PH2 GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
PHV6C	= PHV6 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SM2KFX	= SM-2000 <i>PowerPC</i> upgrade.
V3DACP	= ACELP DSP for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEV1R1	= EVRC1 DSP, for CDMA for PHV4.
V4DEV1R2	= EVRC2 DSP, for CDMA for PHV4.
V4DEV1R3	= EVRC3 DSP, for CDMA for PHV4.
V4DVSP	= VSELP DSP, for TDMA for PHV4.
V4DISL	= ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K	= 13K + EVRC DSP, for CDMA for PHV5.
V5D8K	= 8K DSP, for CDMA for PHV5.
V5DEV1R1	= EVRC1 DSP, for CDMA for PHV5.
V5DEV1R2	= EVRC2 DSP, for CDMA for PHV5.
V5DEV1R3	= EVRC3 DSP, for CDMA for PHV5.
V5DVSP	= VSELP DSP, for TDMA PHV5.
V5DISL	= ISLP DSP, for IS41 TDMA PHV5 data circuit.
V6D13K	= 13K + EVRC DSP, for CDMA for PHV6.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the UPD:VFYCON output message.

5. REFERENCES

Input Message(s):
UPD:PMPPERF

Output Message(s):

UPD:PMPPERF

UPD:SYSERR

UPD:USRERR

UPD:VFYCON

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE

1960 INSTALL BWM

ID UPD:VFYCON-E
RELEASE 5E19(1) only
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests verification of update consistency and a summary of all update inconsistencies that exist in the system.

2. FORMAT

UPD:VFYCON:{ALL|TARGET=a};

3. EXPLANATION OF MESSAGE

ALL = Verify update consistency of all processor images.

a = The processor image whose consistency is to be verified. Valid value(s):

AMPATH	= Office specific update in the AM.
CMP	= Communication module processor.
DDMA	= Diagnostic direct memory access
DNUSCC	= Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
DNUSTMX	= Transmission multiplexer.
DSC3	= Digital service circuit - model 3.
DSP13K	= 8K digital signal processor (DSP) for code division multiple access (CDMA) protocol handler for voice.
DSP8K	= 8K digital signal processor for CDMA protocol handler for voice.
DSPEVRC	= EVRC digital signal processor for CDMA protocol handler for voice.
GDSF	= Global digital services function - model 3.
HDSU	= Hardware digital service unit.
HSAS	= Service announcement system diagnostic image.
IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
IDCUDLP	= IDCU data link processor.
IDCULSI	= IDCU loop side interface.
IP22	= PH22 common input/output processor (IOP) image.
IP3S	= PH3 CCS IOP image.
IP4F	= Frame relay PH4 IOP image.
IP4I	= ISDN PH4 IOP image.
IP4IF	= ISDN frame relay PH4 IOP image.
ISLU	= Integrated services line unit.
ISLU2	= Integrated services line unit 2.
ISTF	= Integrated services test function.
LDSU	= Local digital service unit.
LDSF	= Local digital services function - model 3.
MH32	= Switching module processor message handler 32 (MH32) operational image.
MHEIB	= Switching module processor message handler EIB (MHEIB) operational image.
MHLB	= Switching module processor MH little boot image.
MHPPC	= Switching module processor message handler <i>PowerPC</i> ¹ (MHEPPC) operational image.
MHPPCLB	= Switching module processor MHPPC little boot image.
MSGH	= Message handler.

1. Registered trademark of International Business Machines Corp.

ODMA	= Operational direct memory access.
OIOP	= Operational input/output processor.
OIU24	= Optical interface unit (OIU) - 24 channels.
OIUIP	= Optical interface unit - internet protocol (IP).
PH2A	= Protocol handler 2 (PH2) ACCESS application processor (AP) image.
PH2G	= PH2 GATEWAY AP image.
PH22I	= PH22 wireless ISDN AP image.
PH22S	= PH22 signaling AP image.
PH3C	= PH3 COMMON AP image.
PH3S	= PH3 CCS AP image.
PH4A	= PH4 access AP image.
PH4G	= PH4 gateway AP image.
PH4I	= PH4 ISDN AP image.
PHA1A	= Protocol handler for asynchronous transfer mode (ATM) AP image.
PHA2A	= Protocol handler for ATM model 2 AP image.
PHE2E	= Protocol handler for ethernet.
PHE3B	= Protocol handler for IP backhaul image.
PI	= Packet interface.
PI2	= Packet interface unit 2.
PHV1C	= Protocol handler for voice version 1 (PHV1) for CDMA AP image.
PHV2C	= PHV2 for CDMA application AP image.
PHV3C	= PHV3 for CDMA application AP image.
PHV4C	= PHV4 for CDMA application AP image.
PHV5C	= PHV5 for CDMA application AP image.
PHV6C	= PHV6 for CDMA application AP image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module-2000 (SM-2000).
SM2KFX	= SM-2000 <i>PowerPC</i> upgrade.
V3DACP	= ACELP DSP for TDMA PHV3.
V4D13K	= 13K DSP, for CDMA for PHV4.
V4D8K	= 8K DSP, for CDMA for PHV4.
V4DACP	= ACELP DSP, for TDMA for PHV4.
V4DEV1R1	= EVRC1 DSP, for CDMA for PHV4.
V4DEV1R2	= EVRC2 DSP, for CDMA for PHV4.
V4DEV1R3	= EVRC3 DSP, for CDMA for PHV4.
V4DVSP	= VSELP DSP, for TDMA for PHV4.
V4DISL	= ISLP DSP, for IS41 TDMA PHV4 data circuit.
V5D13K	= 13K + EVRC DSP, for CDMA for PHV5.
V5D8K	= 8K DSP, for CDMA for PHV5.
V5DEV1R1	= EVRC1 DSP, for CDMA for PHV5.
V5DEV1R2	= EVRC2 DSP, for CDMA for PHV5.
V5DEV1R3	= EVRC3 DSP, for CDMA for PHV5.
V5DVSP	= VSELP DSP, for TDMA PHV5.
V5DISL	= ISLP DSP, for IS41 TDMA PHV5 data circuit.
V6D13K	= 13K + EVRC DSP, for CDMA for PHV6.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the UPD:VFYCON output message.

5. REFERENCES

Input Message(s):
UPD:PMPPERF

Output Message(s):

UPD:PMPPERF

UPD:SYSERR

UPD:USRERR

UPD:VFYCON

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE

1960 INSTALL BWM

ID UPD:VFYCON-F
RELEASE 5E20(1) and later
COMMAND GROUP SFTMGT
APPLICATION 5,3B

1. PURPOSE

Requests verification of update consistency and a summary of all update inconsistencies that exist in the system.

2. FORMAT

UPD:VFYCON:{ALL|TARGET=a};

3. EXPLANATION OF MESSAGE

ALL = Verify update consistency of all processor images.

a = The processor image whose consistency is to be verified. Refer to the APP:TARGETS appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by the UPD:VFYCON output message.

5. REFERENCES

Input Message(s):
UPD:PMPPERF

Output Message(s):
UPD:PMPPERF
UPD:SYSERR
UPD:USRERR
UPD:VFYCON

Input Appendix(es):
APP:TARGETS

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 PROGRAM UPDATE MAINTENANCE
1990 INSTALL BWM

ID VFY:AMATAPE
RELEASE 5E15 and later
COMMAND GROUP AMA
APPLICATION 5

1. PURPOSE

Requests that a particular tape drive be set to the automatic message accounting (AMA) function and that the tape on that tape drive be verified.

2. FORMAT

VFY:AMATAPE:MT=a[,ST1|,ST2];

3. EXPLANATION OF MESSAGE

ST1 = Send AMA data to the ST1 data stream.

ST2 = Send AMA data to the ST2 data stream.

Note: For a single data stream office, the stream does not have to be specified as either an ST1 or ST2. However, for a dual stream office, the stream must be specified as either an ST1 or ST2.

a = Tape drive number.

4. SYSTEM RESPONSE

IP = In progress. Followed by a REPT:AMATAPE-VER output message if the tape option is in effect and there is no tape session in progress.

NG = No good. A tape writing or verification session is in progress or the teleprocessing option is in effect, or AMA sessions have been manually inhibited, or data stream checks failed.

PF = Printout follows. Invalid data was encountered while processing the input message. In this case, an audit printout will follow.

RL = Retry later. A message could not be sent to the AMA monitor process.

?I = The tape drive number specified on the input message was invalid.

5. REFERENCES

Input Message(s):

OP:AMA-STREAM

OP:AMA-CONTROLF

Output Message(s):

REPT:AMATAPE-VER

ID VFY:AUTH
RELEASE 5E15 and later
COMMAND GROUP N/A
APPLICATION 5

1. PURPOSE

Verifies authority settings for the originating terminal. The VFY:AUTH output message displays the following authority information for the current terminal session: authority level, terminal identity, user identity, and command groups permitted.

This input message is associated with maintenance interface security. Refer to the Routine Operations and Maintenance manual for further information.

2. FORMAT

VFY:AUTH;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NG = No good. May also include:

- UNABLE TO ACCESS AUTHORITY ADMINISTRATION = The person authority database and/or terminal authority database is inaccessible or does not exist.

PF = Printout follows. Followed by VFY:AUTH output message.

5. REFERENCES

Input Message(s):

ADD:PAUTH
ADD:PCGRP
ADD:TAUTH
ADD:TCGRP
VFY:PAUTH
VFY:PCGRP
VFY:TAUTH
VFY:TCGRP

Output Message(s):

REPT:LOGIN
VFY:AUTH
VFY:PAUTH
VFY:PCGRP
VFY:TAUTH
VFY:TCGRP

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

ID VFY:CPU
RELEASE 5E15 and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests that all lines assigned to a specific call pickup group (CPUG) number or lines having a form of directed call pickup be queried and reported.

2. FORMAT

VFY:CPU[,TN=a[-b]|,MLHG=c[&&d]-e[&&f]][,CPUG=g[-g][-g][-g][-g]]
[,TYPE=h][,DEVICE=j][,NTFY=k];

3. EXPLANATION OF MESSAGE

- a = Telephone number (TN) or the lower limit of a range of TNs.
- b = Upper limit of a range of TNs. If entered CPUG is also required.
- c = Multi-line hunt group (MLHG) number or the lower limit of a range of MLHG numbers (1-2000).
- d = Upper limit of a range of MLHG numbers.
- e = MLHG terminal member number or the lower limit of a range of MLHG member numbers (1-2015).
- f = Upper limit of a range of MLHG members.
- g = Call pickup group (CPUG) number (2-65535).
- h = Type of call pickup. Valid value(s):
- | | |
|---|-------------------------------------|
| B | = Both originating and terminating. |
| D | = Directed. |
| O | = Originating. |
| T | = Terminating. |
- j = Destination device or file for the report. The device or file name is input as a character string and must be enclosed with double quote characters. If the input string is prefixed by a slash (/), the destination will be taken as the name of a file. The length of the file name should not exceed 30 characters.
- The default destination for single CPUGs or single line is the name of the default tty device obtained from the environment variable LCHAN. The default destination for multiple CPUGs is the FILE vfycpu. Files are stored in the directory (/rclog).
- k = Visual notification for originating call pickup. Valid value(s):
- | | |
|---|--|
| N | = No, the visual notification is not provided. |
| Y | = Yes, the visual notification is provided. |

4. SYSTEM RESPONSE

- NG = No good. An invalid argument in the input message was given or the default output device could not be determined.
- PF = Printout follows. The request was received. Followed by the VFY:CPU output message.
- RL = Retry later. The VFY:CPU process was not able to allocate temporary file resources.

5. REFERENCES

Output Message(s):
VFY:CPU

Other Manual(s):
235-190-103 Business and Residence Feature Description

ID VFY:FILE-A
RELEASE 5E15 - 5E16(1)
COMMAND GROUP FHADM
APPLICATION 5,3B

1. PURPOSE

Requests that the contents of files that are essential to the booting of the administrative module (AM) be verified.

Format 1 is used to verify /dev/boot, /dev/lboot, /dev/vtoc, /appdmert, and /dmert only.

Format 2 is used to verify a single file or a list of files.

Format 3 is used to verify all essential files within a database partition.

2. FORMAT

[1]	VFY:FILE
[2]	VFY:FILE:{FN="a b" FLIST="c"[, DELTA]}[,MP="d".[,OLMP="e"][,DN=f,OFLPN=g]][,GEN ,PRINT];
[3]	VFY:FILE:PKNAME ["h"],PKNUM[=i],DBPN[=j][,MP="d".[,OLMP="e"][,DN=f,OFLPN=g]][,PRINT];

3. EXPLANATION OF MESSAGE

- a = A string containing the full path of the essential file to be verified.
- b = A string of 1 to 3 characters that indicates the type of checking to be performed in the form:

g|i|n|[X][-|1|2|B|C|I|D|P]

The first character must be 'g', 'i', or 'n'. The first character may be followed by the letter 'X'. If 'X' appears, then the file is checked for execution permission by the owner. The last character, if specified, indicates that the file type is to be checked.

Valid value(s):

g	= The cyclic redundancy check (CRC) information is stored globally.
i	= The CRC information is stored internally.
n	= The CRC information is not to be checked. If CRC information is not to be checked, then at least one additional character must appear in the string.
-	= Regular.
1	= Contiguous.
2	= Multi-extent.
B	= Block special.
C	= Character special.
I	= IOP special.
R	= Record special.
D	= Director.
P	= Pipe.

The checks for executable by owner and file type are optional as long as CRC checking is specified. If CRC checking is inhibited, then at least one of the optional checks must be specified.

- c = The full pathname of a specification file containing entries in the format of variables 'a' and 'b'.

- d = The full pathname of the directory where the database partition is mounted or where the off-line partition is to be mounted; default is "/".
- e = The corresponding on-line mount point (OLMP) of the file system containing the files being verified. For a non-root file system, if the file names stored in /.crcvalues were stored relative to "/" (for example, no MP option was used when the CRC was generated and stored), then the OLMP option must be used when verifying the contents of a copy of this file which resides on an off-line partition.
- f = The number of the off-line disk which contains the files to be verified. Legal values are 0 to 31. The default is to use the on-line disks.
- g = The number of the off-line disk partition to be verified. Legal values are 0 to 63. The default is to use on-line disk partitions.
- h = A two-character string indicating the pack name of the SG database partition to be verified. This value is the same as the pack_name field in the fs record for the database partition. Default is "rt."
- i = The pack number which corresponds to the pack_number field in the fs record for the database partition being verified. Legal values are 0 to 32767; default is 0.
- j = The SG database partition number of the SG database partition corresponding to the par_number in the partition's fs record. Legal values are 0 to 63; default is 5.

When Format 1 is entered, it defaults to verifying /dev/boot, /dev/lboot, /dev/vtoc, /appdmert, and /dmert. To use the database partition defaults, the user must supply at least one of the SG database options.

If the DELTA keyword is used and if VFY:FILE is using the FLIST keyword and finds a file name in the specification file with the checking option "g," but that file is not found in the global crcvalue file, then VFY:FILE will generate an entry for that file in the global crcvalue file.

The GEN keyword will cause VFY:FILE to generate and store CRC information for the file or list of files provided.

GEN and DELTA make the assumption that the contents of each the files is correct before VFY:FILE is run and should be used only with extreme caution.

The PRINT option causes VFY:FILE to print the CRC information which it calculates for each essential file specified. No actual verification of the CRC information takes place.

The PRINT and GEN options may not be used together.

Note: The option to inhibit CRC checking should not be used unless checking CRC information for the specified file is not appropriate. Do not view this option as a fast way to verify essential files.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the VFY:FILE output message.

5. REFERENCES

Output Message(s):
VFY:FILE

Other Manual(s):

235-105-250 *System Recovery Procedures*
235-600-31x *ECD/SG Data Base*

ID VFY:FILE-B
RELEASE 5E16(2) and later
COMMAND GROUP FHADM
APPLICATION 5,3B

1. PURPOSE

Requests that the contents of files that are essential to the booting of the administrative module (AM) be verified.

Format 1 is used to verify /dev/boot, /dev/lboot, /dev/vtoc, /appdmert, and /dmert only.

Format 2 is used to verify a single file or a list of files.

Format 3 is used to verify all essential files within a database partition.

Note: Only one instance of a VFY:FILE process is allowed to run at one time. The VFY:FILE process will deny any request to start another instance until the current running process completes.

2. FORMAT

[1]	VFY:FILE
[2]	VFY:FILE:{FN="a b" FLIST="c"[, DELTA]}[,MP="d".[,OLMP="e"][,DN=f,OFLPN=g]][,GEN ,PRINT];
[3]	VFY:FILE:PKNAME ["h"],PKNUM[=i],DBPN[=j][,MP="d".[,OLMP="e"][,DN=f,OFLPN=g]][,PRINT];

3. EXPLANATION OF MESSAGE

- a = A string containing the full path of the essential file to be verified.
- b = A string of 1 to 3 characters that indicates the type of checking to be performed in the form:

g|i|n|[X][-|1|2|B|C|I|D|P]

The first character must be 'g', 'i', or 'n'. The first character may be followed by the letter 'X'. If 'X' appears, then the file is checked for execution permission by the owner. The last character, if specified, indicates that the file type is to be checked.

Valid value(s):

- g = The cyclic redundancy check (CRC) information is stored globally.
- i = The CRC information is stored internally.
- n = The CRC information is not to be checked. If CRC information is not to be checked, then at least one additional character must appear in the string.
- = Regular.
- 1 = Contiguous.
- 2 = Multi-extent.
- B = Block special.
- C = Character special.
- I = IOP special.
- R = Record special.
- D = Director.
- P = Pipe.

The checks for executable by owner and file type are optional as long as CRC checking is specified. If CRC checking is inhibited, then at least one of the optional checks must be specified.

- c = The full pathname of a specification file containing entries in the format of variables 'a' and 'b'.
- d = The full pathname of the directory where the database partition is mounted or where the off-line partition is to be mounted; default is "/".
- e = The corresponding on-line mount point (OLMP) of the file system containing the files being verified. For a non-root file system, if the file names stored in /.crcvalues were stored relative to "/" (for example, no MP option was used when the CRC was generated and stored), then the OLMP option must be used when verifying the contents of a copy of this file which resides on an off-line partition.
- f = The number of the off-line disk which contains the files to be verified. Legal values are 0 to 31. The default is to use the on-line disks.
- g = The number of the off-line disk partition to be verified. Legal values are 0 to 63. The default is to use on-line disk partitions.
- h = A two-character string indicating the pack name of the SG database partition to be verified. This value is the same as the pack_name field in the fs record for the database partition. Default is "rt."
- i = The pack number which corresponds to the pack_number field in the fs record for the database partition being verified. Legal values are 0 to 32767; default is 0.
- j = The SG database partition number of the SG database partition corresponding to the par_number in the partition's fs record. Legal values are 0 to 63; default is 5.

When Format 1 is entered, it defaults to verifying /dev/boot, /dev/lboot, /dev/vtoc, /appdmert, and /dmert. To use the database partition defaults, the user must supply at least one of the SG database options.

If the DELTA keyword is used and if VFY:FILE is using the FLIST keyword and finds a file name in the specification file with the checking option "g," but that file is not found in the global crcvalue file, then VFY:FILE will generate an entry for that file in the global crcvalue file.

The GEN keyword will cause VFY:FILE to generate and store CRC information for the file or list of files provided.

GEN and DELTA make the assumption that the contents of each the files is correct before VFY:FILE is run and should be used only with extreme caution.

The PRINT option causes VFY:FILE to print the CRC information which it calculates for each essential file specified. No actual verification of the CRC information takes place.

The PRINT and GEN options may not be used together.

Note: The option to inhibit CRC checking should not be used unless checking CRC information for the specified file is not appropriate. Do not view this option as a fast way to verify essential files.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the VFY:FILE output message.

5. REFERENCES

Output Message(s):
VFY:FILE

Other Manual(s):

235-105-250 *System Recovery Procedures*

235-600-31x *ECD/SG Data Base*

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID VFY:MHD
RELEASE 5E15 and later
COMMAND GROUP AM
APPLICATION 5,3B

1. PURPOSE

Reads all or specific disk tracks/blocks and verifies the header and error-correction code of each sector of the tracks/blocks read. The error-correction code is read to verify the correctability of the data in each sector.

For storage module drive (SMD) disk drives, the header contains the cylinder, track, and sector identification numbers, and should match the SMD disk file controller (DFC) internal head position data. For small computer system interface (SCSI) disk drives, the error-correction code is read to verify the correct ability of the data in each disk block. The moving head disk (MHD) does not have to be in the active state for this input message to work.

Note: It may take several minutes to verify a complete disk. For SMD DFC, this request may fail to complete if it is input while another MHD related request is active on the same DFC. If this happens, repeat the request after the other input message completes. For SCSI DFC, a maximum of two "verify" requests are possible for different MHDs on the same DFC.

Warning: *This message should not be executed when either the AM or CM REX are running. Executing this message at those times can result in call processing problems.*

2. FORMAT

[1] VFY:MHD=a [,TRACK=b[&&c]];
[2] VFY:MHD=a [,BLOCK=b[&&c]];

3. EXPLANATION OF MESSAGE

- a = Member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = There are two different formats depending on the type of MHD (SMD or SCSI). Valid value(s):
 - Track(s) of the SMD MHD to be verified, in decimal notation. May be the first track of a range (0-17604).
 - Block(s) of the SCSI MHD to be verified, in decimal notation. May be the first block of a range (0-2147483646).
- c = The last track/block of a range of tracks (0-17064 or 0-2147483646).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by VFY:MHD output message.

5. REFERENCES

Input Message(s):
INIT:MHD

Output Message(s):
VFY:MHD

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):
123 (DISK FILE SYSTEM ACCESS)

ID VFY:MLHG
RELEASE 5E15 and later
COMMAND GROUP RCV
APPLICATION 5

1. PURPOSE

Requests a report to verify all the members of a multi-line hunt group (MLHG). The report quickly provides information on all members of a particular MLHG. The message is useful for trouble shooting MLHG data.

2. FORMAT

VFY:MLHG, GROUP=a[, DEVICE="b"][, REPORT=c];

3. EXPLANATION OF MESSAGE

- a = Multi-line hunt group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Destination device or file for the report. The device or file name is input as a character string and must be inclosed with double quotation marks. If the input string is prefixed by a slash (/), the destination will be taken as the name of a file. The length of the file name must not exceed thirty (30) characters. The default destination is the name of the default tty device obtained from the environment variable LCHAN.
- c = Type of report. Valid value(s):
 - G = Report group.
 - M = Report member.
 - B = Report both group and member.

4. SYSTEM RESPONSE

- NG = No good. An invalid argument in the input message was given or the default output device could not be determined.
- PF = Printout follows. Followed by the report on the specified destination device/file.
- RL = Retry later. The VFY:MLHG process was not able to allocate temporary file resources.

5. REFERENCES

None

ID VFY:OFC-A
RELEASE 5E15 - 5E16(1)
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests verification of office routing translations, used in call processing, from the originating line or trunk to the terminating line or trunk.

This input message supports routing for voice calls. This includes intra- and inter-office calls. This input message examines routing of voice calls including automatic route selection (ARS) voice calls. For Format 1, this message supports verification of switch number portability (NP) routing information and recognition of LRNs in routing tables. This format also supports verification of provisioned routing information for long distance platform (LDP).

For Format 2, this message supports routing for circuit-switched data (CSD), except for certain features like automatic route selection (ARS). This includes intra- and inter-office CSD calls. This input message also supports verification of switch number portability (NP) routing information and recognition of LRNs in routing tables. This format also supports verification of provisioned routing information for long distance platform (LDP), with the ability to verify wideband data rates for LDP calls.

For Format 3, this input supports routing for packet-switched data (PSD) calls. This includes intra- and inter-office PSD calls.

2. FORMAT

```
[1] VFY:OFC,[CSV],{DN=a|TG=b[-c]|MLHG=d-e|PORT=f-g}[ ,DIG=h]
    [,LRN=i|PORTEDDN=m|NONPORTED][ ,ANI=n][ ,II=o|OLI=p]
    [,CALLTYPE=q][ ,CIC=r][ ,TNS=s-t][ ,CC=u][ ,SAT][ ,TNSC=v]
    [,PRESUBSC];

[2] VFY:OFC,CSD,{DN=a|TG=b[-c]|MLHG=d-e},{Datarate=w|WBRATE=x|
    WBCHANNEL=y}[ ,DIG=h][ ,LRN=i|PORTEDDN=m|NONPORTED][ ,ANI=n]
    [,II=o|OLI=p][ ,CALLTYPE=q][ ,CIC=r][ ,TNS=s-t][ ,CC=u][ ,SAT]
    [,TNSC=v][ ,PRESUBSC];

[3] VFY:OFC,PKT,{DN=a[,MLHG=d-e]|TG=b[-c]|MLHG=d-e}
    [,RPOA=i][ ,ICPI=j][ ,PSN=k][ ,DIG=h];
```

3. EXPLANATION OF MESSAGE

- a = Directory number (DN) of the line whose translations are to be verified.
- b = Trunk group number of the trunk whose translations are to be verified. This field may be used to enter a Bearer Independent Call Control (BICC) Trunk group. If a Service Trunk group is entered, an error will be returned.
- c = Optional member number of the trunk group whose translations are to be verified. If not specified, the first assigned member is used. The member value cannot be entered if the trunk group specified is a BICC trunk group. The base CIC is used to process all BICC requests.
- d = Group number of the multi-line hunt group line whose translations are to be verified.
- e = Member number of the multi-line hunt group line whose translations are to be verified.
- f = Module number (key to RLPORTLA) of the port whose translations are to be verified.
- g = Port name (key to RLPORTLA) of the port whose translations are to be verified.
- h = Optional address digits of call to be verified. This field should contain the LRN when PORTEDDN is also entered. Must be specified unless the call is from a manual or direct

connect line, trunk or unless a packet switch number (PSN) is input for Packet. The special characters "#" and "*" may be included along with numeric digits by surrounding the entire field with double quotation marks. If no special characters are entered, then the quotation marks are optional.

It is a general rule-of-thumb that whenever there is timing in a digit sequence that the customer can end by dialing a #, then that # must be included in the input digit string. This is normally the case with ambiguous or conflict sequences.

For example, in the case of using an IDP and dialing an escape to POTS dial code followed by ODP dial code (which starts with a # sign) and possibly more digits, a # sign needs to be inserted in the digit string between the escape to POTS code and the dial code. The customer dialing the following sequence 9 (action DPOTSA defined in IDP), #8 (ARSUSE code defined in ODP) and 5610000 (a DN) would enter this digit string in the input message as dig="9##85610000".

This is because this input message works off the digit string and cannot do critical interdigit timing as is done when the digits are being collected from a user. Entering the digit string above as "9#85610000" would result in the # being read as end of critical interdigit timing and the ODP would be left to incorrectly interpret the digits 85610000.

For LDP calls, the value of this field depends on the CALLTYPE input field (variable 'q'). Please refer the tables under the explanation of CALLTYPE input field for valid values.

- i = Optional Registered Private Operating Agency, a four-digit Data Network Interexchange Carrier (DNIC) used with packet routing.
- j = Optional Interexchange Carrier Preselect Indication, a four-digit DNIC used with packet routing.
- k = Optional Packet Switch Number, a number between 1 and 255, inclusive, used in Internal Protocol Packet routing as the destination of the call.
- l = Optional ten digit Location Routing Number.
- m = Ported DN, generic address parameter (SS7 ISUP). Variable 'h' contains the LRN. This overrides the LNP query. No LNP query will be done when LRN is entered.
- n = Optional automatic number identification (ANI). ANI is a required field for LDP LATA trunks. Valid value(s):
 - 10 digit NPA-NXX-XXXX
 - 3 digit NPA
 - NULL = The NULL value shall be valid only when DIG=950-XXXX for CALLTYPE=FGB or FGBPS.
- o = Optional ANI information digits (II) for a MF trunk. Valid value(s):
 - 00 = Identified line with no special treatment.
 - 01 = Operator number identified (multiparty).
 - 02 = ANI failure.
 - 06 = Hotel without room identification.
 - 07 = Coinless, hospital, or inmate call.
 - 08 = Interlata restricted.
 - 10 = Test call.
 - 20 = Automatic input/output dialing (AIOD) listed directory number sent.
 - 23 = Identified line (coin or noncoin).
 - 24 = Translated 800 call.
 - 27 = Coin line.
 - 34 = Operator handled.
 - 52 = Outbound wide area transport (OUTWATS) line.
 - 68 = Interlata restricted hotel line.

78 = Interlata restricted coinless line.
93 = Virtual private network line.
NULL = NULL input, valid only when DIG=950-XXXX for CALLTYPE=FGB or FGBPS calls.

The default value for this field is 00.

p = Optional originating line information (OLI) for a CCS7 trunk. Valid value(s):

IDLINE = Identified line with no special treatment.
01 = Operator number identified (multiparty).
02 = ANI failure.
06 = Hotel without room identification.
07 = Coinless, hospital, or inmate call.
08 = Interlata restricted.
10 = Test call.
20 = Automatic input/output dialing (AIOD) listed directory number sent.
23 = Identified line (coin or noncoin).
24 = Translated 800 call.
27 = Coin line.
34 = Operator handled.
52 = Outbound wide area transport (OUTWATS) line.
68 = Interlata restricted hotel line.
78 = Interlata restricted coinless line.
93 = Virtual private network line.
NULL = NULL input, valid only when DIG=950-XXXX for CALLTYPE=FGB or FGBPS calls.

The default value for this field is IDLINE.

q = Optional calltype prefix of the dialed number. This also corresponds to the nature of number value for CCS7 signaling. Valid value(s):

1P = World zone 1, non-operator.
0P = World zone 1, zero plus.
011 = International, non-operator.
01P = International 01 plus (dialed as 01+CC+NN).
01M = International 01 minus.
DOM = Domestic (United States).
FGB = FGB (950-xxxx) calls from transition EAEO/AT.
FGBPS = FGB (950-xxxx) calls from public station during and after the transition.
FGDCT = Feature group D cutthrough calls.

The default value for this field is DOM.

If calltype is 011, 01P, 1P or 0P only the national number digits have to be entered on the DIG field on input. No prefixes should be present on the DIG= field. The software will add appropriate prefixes based on CALLTYPE. The software will also add the country code from input command for international calls.

If CALLTYPE is 01M, DIG= and CC= should not be entered on input. Software will analyze this as an international operator call based on CALLTYPE.

If CALLTYPE is DOM, user has to enter the actual digit string to be analyzed along with necessary prefixes. For example, if the user wants a DOMESTIC operator call, the digit string must have a 0 prefix on the DIG= field.

Table 1: Mapping of CALLTYPE to CCS7 Nature of Address/Switch Prefixing

The following table describes relationship between certain input parameter combinations and how the switch processes them for ISUP signaling.

Fields CALLTYPE, DIG, CC, TNS are VFY:OFC input fields.

CCS7 nature of address is the nature of address assigned to the call based on these inputs.

Switch prefix is the prefix that the switch adds to the called party number based on these inputs.

CALLTYPE	DIG (to be input)	CC (to be input)	TNS (to be input)	CCS7 Nature of address	Switch Prefix
011	National number	Required	Required	International number	011
01P	National number	Required	Required	International number, operator requested	01
01M	No digits	Not required	Required	No number present, operator requested	00
1P	National number	Not required	Required	National (significant) Number	NONE
0P	National number	Not required	Required	National number, operator requested	0
DOM	Switch does not prefix any digits Actual digit string to be analyzed has to be input	Not required	Not required	National (significant) Number	NONE
FGB, FGBPS	950xxxx	Not required	Not required	950+ type calls	NONE
FGDCT	Not required	Not required	Not required	Cutthru to carrier	NONE

Table 2: Mapping of CALLTYPE to switch prefix for MF signaling

The following table describes relationship between certain input parameter combinations and how the switch processes them for MF signaling.

Fields CALLTYPE, DIG, CC, CIC are VFY:OFC input fields.

Switch prefix is the prefix that the switch adds to the called party number based on these inputs.

CALLTYPE	DIG (to be input)	CC (to be input)	CIC (to be input)	Switch prefix
011	National number	Required	Required	011
01P	National number	Required	Required	01

CALLTYPE	DIG (to be input)	CC (to be input)	CIC (to be input)	Switch prefix
01M	No digits	Not required	Required	Prefix 0 to "KP-0-ST" to become "KP-00-ST"
1P	National number	Not required	Required	NONE
0P	National number	Not required	Required	NONE
DOM	Switch does not prefix any digits Actual digit string to be analyzed has to be input	Not required	Not required	NONE
FGB, FGBPS	9500000 or Blank	Not required	Not required	NONE
FGDCT	Not required	Not required	Not required	NONE

- r = Optional carrier identification code (CIC). CIC can be 3 digit(0-999) or 4 digit(0-9999).
- s = Optional circuit code for transit network selector (TNS). Valid values are in the range 0-15. For incoming MINT trunk, any value specified for TNS is ignored.
- t = Optional carrier code for transit network selector (TNS). Valid carrier code can be 3 digit(0-999) or 4 digit(0-9999). For incoming MINT trunk, any value specified for TNS is ignored.
- u = Optional 3 digit(0-999) country code for the called number.
- v = Optional terminating network selection code (TNSC), relevant only for specified MINT trunks. Valid values are in the range 0-999. Default value is 1.
- w = Narrowband data rate for CSD calls. Valid value(s):
- 56 = 56-kbps, unrestricted digital information, circuit-mode, rate adapted from 56-kbps.
- 64 = 64-kbps, unrestricted digital information, circuit-mode.
- R64 = 64-kbps, restricted digital information, circuit-mode, rate adapted from 56-kbps.
- x = Wideband data rate for CSD calls. Valid value(s):
- 384 = 384 kbps.
- 384_1536 = 384 or 1536 kbps.
- 1536 = 1536 kbps.
- y = Wideband data rate channel for CSD calls. Wideband channel specifies the number of DS0s requested for the call. The number of DS0s is the information transfer rate multiplier value. This field will always be included for "multi-rate" calls. Valid values for this field are between 2 and 24.
- NONPORTED = Presence of this key indicates that dig= value is known to be nonported.
- PRESUBSC = Optional keyword to indicate if the calling party is presubscribed to the carrier associated with this call.
- SAT = Optional keyword to indicate if the call has been routed via satellite. For SS7, SAT keyword is valid for all trunks. For MF, SAT keyword can only be used for MINT trunks.

4. SYSTEM RESPONSE

- NG = No good. May also include:
- ANI PARAMETER MUST BE 3 or 10 DIGITS OR ENTERED AS NULL
 - ANI PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
 - ANI PARAMETER MUST BE NULL or DIGITS
 - ANI PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
 - ANI PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
 - CALLTYPE IS NOT FGB/FGBPS, ANI, OLI OR II CANNOT BE ENTERED
 - CALLTYPE PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
 - CALLTYPE PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
 - CALLTYPE PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
 - CALLTYPE SHOULD BE FGB/FGBPS FOR DIG=950-XXXX
 - CANNOT SPECIFY LRN DIGITS WITHOUT A DIG PARAMETER
 - CANNOT SPECIFY PORTEDDN OR NONPORTED WITHOUT A DIG PARAMETER
 - CC PARAMETER CANNOT BE ENTERED WHEN CALLTYPE=01M
 - CC PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
 - CC PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
 - CC PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
 - CIC PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
 - CIC PARAMETER MUST BE DIGITS
 - CIC PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
 - CIC PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
 - DIG CANNOT BE ENTERED WITH PSN
 - DIG NOT ENTERED, CALLTYPE SHOULD BE FGB/FGBPS/FGDCT/01M
 - DIG PARAMETER CANNOT BE ENTERED FOR CALLTYPE=FGDCT/01M
 - FOR FGB CALLS, DIG MUST BE 950-XXXX OR NOT ENTERED
 - FOR FGB CALLS, WHEN ANI=NULL THEN II=NULL HAS TO BE ENTERED
 - FOR FGB CALLS, WHEN ANI=NULL THEN OLI=NULL HAS TO BE ENTERED
 - FOR FGB CALLS, WHEN II=NULL THEN ANI=NULL HAS TO BE ENTERED
 - FOR FGB CALLS, WHEN OLI=NULL THEN ANI=NULL HAS TO BE ENTERED
 - II PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
 - II PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
 - II PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
 - LRN PARAMETER NOT SUPPORTED - TEST QUERY FOR LRN FEATURE NOT PURCHASED
 - LRN PARAMETER MUST BE 10 DIGITS
 - NON-NUMBER DIGIT = Address digits contain characters other than 0-9, #, and *.
These two special characters should be in quoted strings.
 - NONPORTED KEYWORD NOT SUPPORTED - NP VERIFY OFFICE FOR LRNS NOT PURCHASED
 - NULL ANI VALUE CAN ONLY BE USED FOR FGB CALLS = ANI=NULL,
OLI/II=NULL can be entered only when CALLTYPE=FGB/FGBPS.
 - OLI PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
 - OLI PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
 - OLI PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
 - ONLY SS7 TRUNK ORIGINATIONS CAN SPECIFY PORTEDDN PARAMETER
 - PORTEDDN PARAMETER NOT SUPPORTED - NP VERIFY OFFICE FOR LRNS NOT PURCHASED
 - PORTEDDN PARAMETER MUST BE 10 DIGITS
 - PRESUBSC PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
 - PRESUBSC PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE

- PRESUBSC PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
- PSN CANNOT BE ENTERED WITH RPOA OR ICPI
- RPOA/ICPI MUST BE FOUR DIGIT BCD
- SAT PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
- SAT PARAMETER NOT SUPPORTED - BASIC LDP IS NOT ACTIVE
- SAT PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
- SYSTEM ERROR = No terminal process could be created in the administrative module (AM). This is probably a temporary condition. If this happens repeatedly, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.
- TG CANNOT BE ENTERED WITH DN OR MLHG = The only valid origination combinations for packet (PKT) are DN, MLHG, DN and MLHG, or TG.
- TNS PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
- TNS PARAMETER MUST BE DIGITS = The circuit code and carrier ID in TNS parameter must contain digits only.
- TNS PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
- TNS PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
- TNSC PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
- TNSC PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
- TNSC PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
- WBCHANNEL PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
- WBCHANNEL PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
- WBCHANNEL PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
- WBRATE PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
- WBRATE PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
- WBRATE PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE

PF = Printout follows. Followed by the appropriate output message. May also include:

- EVENT n = Request (identified by the number n) has been accepted and is being processed. The VFY:OFC output message may contain multiple segments. Each segment will contain this event number.

RL = Retry later. May also include:

- NO STACK SPACE = No stack space is available in the AM. This is probably a temporary condition. If this happens repeatedly, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.
- NO SYSTEM RESOURCE = No process control blocks (PCBs) in the AM are available. This is probably a temporary condition. If this happens repeatedly, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.
- UNABLE TO SEND MSG = The AM is unable to send messages. This is probably a temporary condition. If this happens repeatedly, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.
- VERIFY IN PROGRESS = Another office verification is currently in progress. Only one verification can be done at a time.

5. REFERENCES

Output Message(s):
VFY:OFC

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-118-21x *Recent Change Menu Mode Text Interface*

235-118-24x *Recent Change Procedures*

235-118-24x *Recent Change Reference*

235-600-11x *Translations Data*

235-200-110 *Long Distance Platform*

ID VFY:OFC-B
RELEASE 5E16(2) and later
COMMAND GROUP MAINT
APPLICATION 5

1. PURPOSE

Requests verification of office routing translations, used in call processing, from the originating line or trunk to the terminating line or trunk.

This input message supports routing for voice calls. This includes intra- and inter-office calls. This input message examines routing of voice calls including automatic route selection (ARS) voice calls.

For Format 1, this message supports verification of switch number portability (NP) routing information and recognition of LRNs in routing tables. This format also supports verification of provisioned routing information for long distance platform (LDP).

For Format 2, this message supports routing for circuit-switched data (CSD), except for certain features like automatic route selection (ARS). This includes intra- and inter-office CSD calls. This input message also supports verification of switch number portability (NP) routing information and recognition of LRNs in routing tables. This format also supports verification of provisioned routing information for long distance platform (LDP), with the ability to verify wideband data rates for LDP calls.

For Format 3, this input supports routing for packet-switched data (PSD) calls. This includes intra- and inter-office PSD calls.

2. FORMAT

```
[1] VFY:OFC,[CSV],{DN=a|TG=b[-c]|MLHG=d-e|PORT=f-g}[ ,DIG=h]. . .
    . . .[,LRN=i|PORTEDDN=j|NONPORTED][ ,ANI=k][ ,II=1|OLI=m]. . .
    . . .[,CALLTYPE=n][ ,CIC=o][ ,TNS=p-q][ ,CC=r][ ,SAT][ ,TNSC=s]. . .
    . . .[,PRESUBSC];

[2] VFY:OFC,CSD,{DN=a|TG=b[-c]|MLHG=d-e},{DATARATE=t|WBRATE=u|. . .
    . . .WBCHANNEL=v}[ ,DIG=h][ ,LRN=i|PORTEDDN=j|NONPORTED][ ,ANI=k]. . .
    . . .[,II=1|OLI=m][ ,CALLTYPE=n][ ,CIC=o][ ,TNS=p-q][ ,CC=r][ ,SAT]. . .
    . . .[,TNSC=s][ ,PRESUBSC];

[3] VFY:OFC,PKT,{DN=a[,MLHG=d-e]|TG=b[-c]|MLHG=d-e}. . .
    . . .[,RPOA=w][ ,ICPI=x][ ,PSN=y][ ,DIG=h];
```

3. EXPLANATION OF MESSAGE

NONPORTED = Presence of this key indicates that dig= value is known to be nonported.

PRESUBSC = Optional keyword to indicate if the calling party is presubscribed to the carrier associated with this call.

SAT = Optional keyword to indicate if the call has been routed using satellite. For SS7, SAT keyword is valid for all trunks. For ME, SAT keyword can only be used for MINT trunks.

a = Directory number (DN) of the line whose translations are to be verified.

b = Trunk group number of the trunk whose translations are to be verified. If the trunk group is a packet trunk [such as bearer independent call control (BICC) or session initiation protocol for telephony (SIP-T), do the following:

If the trunk group is:	Then:
A bearer independent call control (BICC) trunk group	Enter the BICC packet group. The packet group number can be found on RC/V View 5.71 (PACKET GROUP DEFINITION). If a BICC service group number is entered, an error will be returned.
A session initiation protocol for telephony (SIP-T) trunk group	Enter the SIP-T service group. The service group number is the same as the trunk group number and can be found on RC/V View 5.1 (TRUNK GROUP). If a SIP-T packet group number is entered, an error will be returned.

c = Optional member number of the trunk group whose translations are to be verified. If not specified, the first assigned member is used.

Note: This variable is only valid for circuit trunk group. For packet trunk group, BICC and SIP-T, an error will be returned. Refer to variable 'b'.

d = Group number of the multi-line hunt group line whose translations are to be verified.

e = Member number of the multi-line hunt group line whose translations are to be verified.

f = Module number (key to RLPORTLA) of the port whose translations are to be verified.

g = Port name (key to RLPORTLA) of the port whose translations are to be verified.

h = Optional address digits of call to be verified. This field should contain the LRN when PORTEDDN is also entered. Must be specified unless the call is from a manual or direct connect line, trunk or unless a packet switch number (PSN) is input for packet. The special characters "#" and "*" may be included along with numeric digits by surrounding the entire field with double quotation marks. If no special characters are entered, then the quotation marks are optional.

It is a general rule-of-thumb that whenever there is timing in a digit sequence that the customer can end by dialing a #, then that # must be included in the input digit string. This is normally the case with ambiguous or conflict sequences.

For example, in the case of using an IDP and dialing an escape to POTS dial code followed by ODP dial code (which starts with a # sign) and possibly more digits, a # sign needs to be inserted in the digit string between the escape to POTS code and the dial code. The customer dialing the following sequence 9 (action DPOTSA defined in IDP), #8 (ARSUSE code defined in ODP) and 5610000 (a DN) would enter this digit string in the input message as dig="9##85610000".

This is because this input message works off the digit string and cannot do critical interdigit timing as is done when the digits are being collected from a user. Entering the digit string above as "9#85610000" would result in the # being read as end of critical interdigit timing and the ODP would be left to incorrectly interpret the digits 85610000.

For LDP calls, the value of this field depends on the CALLTYPE input field (variable 'o'). Please refer the tables under the explanation of CALLTYPE input field for valid values.

i = Optional ten digit location routing number.

j = Ported DN, generic address parameter (SS7 ISUP). Variable 'h' contains the LRN. This overrides the LNP query. No LNP query will be done when LRN is entered.

k = Optional automatic number identification (ANI). ANI is a required field for LDP LATA trunks. Valid value(s):
10 digit NPA-NXX-XXXX

3 digit NPA
NULL

The NULL value shall be valid only when DIG=950-XXXX for CALLTYPE=FGB or FGBPS.

- l = Optional ANI information digits (II) for a MF trunk. Valid value(s):
- 00 = Identified line with no special treatment.
 - 01 = Operator number identified (multiparty).
 - 02 = ANI failure.
 - 06 = Hotel without room identification.
 - 07 = Coinless, hospital, or inmate call.
 - 08 = Interlata restricted.
 - 10 = Test call.
 - 20 = Automatic input/output dialing (AIOD) listed directory number sent.
 - 23 = Identified line (coin or noncoin).
 - 24 = Translated 800 call.
 - 27 = Coin line.
 - 34 = Operator handled.
 - 52 = Outbound wide area transport (OUTWATS) line.
 - 68 = Interlata restricted hotel line.
 - 78 = Interlata restricted coinless line.
 - 93 = Virtual private network line.
 - NULL = NULL input, valid only when DIG=950-XXXX for CALLTYPE=FGB or FGBPS calls.

The default value for this field is 00.

- m = Optional originating line information (OLI) for a CCS7 trunk. Valid value(s):
- IDLINE = Identified line with no special treatment.
 - 01 = Operator number identified (multiparty).
 - 02 = ANI failure.
 - 06 = Hotel without room identification.
 - 07 = Coinless, hospital, or inmate call.
 - 08 = Interlata restricted.
 - 10 = Test call.
 - 20 = Automatic input/output dialing (AIOD) listed directory number sent.
 - 23 = Identified line (coin or noncoin).
 - 24 = Translated 800 call.
 - 27 = Coin line.
 - 34 = Operator handled.
 - 52 = Outbound wide area transport (OUTWATS) line.
 - 68 = Interlata restricted hotel line.
 - 78 = Interlata restricted coinless line.
 - 93 = Virtual private network line.
 - NULL = NULL input, valid only when DIG=950-XXXX for CALLTYPE=FGB or FGBPS calls.

The default value for this field is IDLINE.

- n = Optional calltype prefix of the dialed number. This also corresponds to the nature of number value for CCS7 signaling except for APN. If APN, it corresponds to either the nature of number value for CCS7 signaling or to the called party number information element type of number and numbering plan identification values for Q.931 signaling. Valid value(s):
- 1P = World zone 1, non-operator.
 - 0P = World zone 1, zero plus.
 - 011 = International, non-operator.
 - 01P = International 01 plus (dialed as 01+CC+NN).

01M = International 01 minus.
DOM = Domestic (United States).
FGB = FGB (950-xxxx) calls from transition EAEO/AT.
FGBPS = FGB (950-xxxx) calls from public station during and after the transition.
FGDCT = Feature group D cutthrough calls.
APN = Action point numbers.

The default value for this field is DOM.

If calltype is 011, 01P, 1P or 0P only the national number digits have to be entered on the DIG field on input. No prefixes should be present on the DIG= field. The software will add appropriate prefixes based on CALLTYPE. The software will also add the country code from the input message for international calls.

If CALLTYPE is 01M, DIG= and CC= should not be entered on input. Software will analyze this as an international operator call based on CALLTYPE.

If CALLTYPE is DOM, user has to enter the actual digit string to be analyzed along with necessary prefixes. For example, if the user wants a DOMESTIC operator call, the digit string must have a 0 prefix on the DIG= field.

If CALLTYPE is APN, user has to enter the private digit string to be analyzed. This value only applies on an edge switch for CCS7 TTOLL and IC trunks and for Service Node EDSL trunks. The following tables do not apply when CALLTYPE is APN.

Mapping of CALLTYPE to CCS7 Nature of Address/Switch Prefixing

This table describes relationship between certain input parameter combinations and how the switch processes them for ISUP signaling.

Fields CALLTYPE, DIG, CC, TNS are VFY:OFC input fields.

CCS7 nature of address is the nature of address assigned to the call based on these inputs.

Switch prefix is the prefix that the switch adds to the called party number based on these inputs.

CALLTYPE	DIG (to be input)	CC (to be input)	TNS (to be input)	CCS7 Nature of address	Switch prefix
011	National number	Required	Required	International number	011
01P	National number	Required	Required	International number, operator requested	01
01M	No digits	Not required	Required	No number present, operator requested	00
1P	National number	Not required	Required	National (significant) Number	NONE
0P	National number	Not required	Required	National number, operator requested	0
DOM	Switch does not prefix any digits. Actual digit string to be analyzed has to be input.	Not required	Not required	National (significant) Number	NONE

CALLTYPE	DIG (to be input)	CC (to be input)	TNS (to be input)	CCS7 Nature of address	Switch prefix
FGB, FGBPS	950xxxx	Not required	Not required	950+ type calls	NONE
FGDCT	Not required	Not required	Not required	Cutthru to carrier	NONE

Mapping of CALLTYPE to switch prefix for MF signaling

This table describes relationship between certain input parameter combinations and how the switch processes them for MF signaling.

Fields CALLTYPE, DIG, CC, CIC are VFY:OFC input fields.

Switch prefix is the prefix that the switch adds to the called party number based on these inputs.

CALLTYPE	DIG (to be input)	CC (to be input)	CIC (to be input)	Switch prefix
011	National number	Required	Required	011
01P	National number	Required	Required	01
01M	No digits	Not required	Required	Prefix 0 to "KP-0-ST" to become "KP-00-ST"
1P	National number	Not required	Required	NONE
0P	National number	Not required	Required	NONE
DOM	Switch does not prefix any digits. Actual digit string to be analyzed has to be input.	Not required	Not required	NONE
FGB, FGBPS	9500000 or Blank	Not required	Not required	NONE
FGDCT	Not required	Not required	Not required	NONE

- o = Optional carrier identification code (CIC). CIC can be 3 digit(0-999) or 4 digit(0-9999).
- p = Optional circuit code for transit network selector (TNS). Valid values are in the range 0-15. For incoming MINT trunk, any value specified for TNS is ignored.
- q = Optional carrier code for transit network selector (TNS). Valid carrier code can be 3 digit (0-999) or 4 digit (0-9999). For incoming MINT trunk, any value specified for TNS is ignored.
- r = Optional 3 digit (0-999) country code for the called number.
- s = Optional terminating network selection code (TNSC), relevant only for specified MINT trunks. Valid values are in the range 0-999. Default value is 1.
- t = Narrowband data rate for CSD calls. Valid value(s):

- 56 = 56-kbps, unrestricted digital information, circuit-mode, rate adapted from 56-kbps.
64 = 64-kbps, unrestricted digital information, circuit-mode.
R64 = 64-kbps, restricted digital information, circuit-mode, rate adapted from 56-kbps.
- u = Wideband data rate for CSD calls. Valid value(s):
384 = 384 kbps.
384_1536 = 384 or 1536 kbps.
1536 = 1536 kbps.
- v = Wideband data rate channel for CSD calls. Wideband channel specifies the number of DS0s requested for the call. The number of DS0s is the information transfer rate multiplier value. This field will always be included for "multi-rate" calls. Valid values for this field are between 2 and 24.
- w = Optional registered private operating agency, a four-digit data network interexchange carrier (DNIC) used with packet routing.
- x = Optional interexchange carrier preselect indication, a four-digit DNIC used with packet routing.
- y = Optional packet switch number, a number between 1 and 255, inclusive, used in internal protocol packet routing as the destination of the call.

4. SYSTEM RESPONSE

- NG = No good. May also include:
- ANI PARAMETER MUST BE 3 or 10 DIGITS OR ENTERED AS NULL
 - ANI PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
 - ANI PARAMETER MUST BE NULL or DIGITS
 - ANI PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
 - ANI PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
 - CALLTYPE=APN CAN ONLY BE ENTERED WHEN DIG ENTERED
 - CALLTYPE=APN NOT SUPPORTED - EDGE SWITCH FEATURE IS NOT ACTIVE
 - CALLTYPE IS NOT FGB/FGBPS, ANI, OLI OR II CANNOT BE ENTERED
 - CALLTYPE PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
 - CALLTYPE PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
 - CALLTYPE PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
 - CALLTYPE SHOULD BE FGB/FGBPS FOR DIG=950-XXXX
 - CANNOT SPECIFY LRN DIGITS WITHOUT A DIG PARAMETER
 - CANNOT SPECIFY PORTEDDN OR NONPORTED WITHOUT A DIG PARAMETER
 - CC PARAMETER CANNOT BE ENTERED WHEN CALLTYPE=01M
 - CC PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
 - CC PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
 - CC PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
 - CIC PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
 - CIC PARAMETER MUST BE DIGITS
 - CIC PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
 - CIC PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
 - DIG CANNOT BE ENTERED WITH PSN
 - DIG NOT ENTERED, CALLTYPE SHOULD BE FGB/FGBPS/FGDCT/01M
 - DIG PARAMETER CANNOT BE ENTERED FOR CALLTYPE=FGDCT/01M
 - FOR FGB CALLS, DIG MUST BE 950-XXXX OR NOT ENTERED
 - FOR FGB CALLS, WHEN ANI=NULL THEN II=NULL HAS TO BE ENTERED

- FOR FGB CALLS, WHEN ANI=NULL THEN OLI=NULL HAS TO BE ENTERED
- FOR FGB CALLS, WHEN II=NULL THEN ANI=NULL HAS TO BE ENTERED
- FOR FGB CALLS, WHEN OLI=NULL THEN ANI=NULL HAS TO BE ENTERED
- II PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
- II PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
- II PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
- LRN PARAMETER NOT SUPPORTED - TEST QUERY FOR LRN FEATURE NOT PURCHASED
- LRN PARAMETER MUST BE 10 DIGITS
- NON-NUMBER DIGIT = Address digits contain characters other than 0-9, #, and *.
These two special characters should be in quoted strings.
- NONPORTED KEYWORD NOT SUPPORTED - NP VERIFY OFFICE FOR LRNS NOT PURCHASED
- NULL ANI VALUE CAN ONLY BE USED FOR FGB CALLS = ANI=NULL,
OLI/II=NULL can be entered only when CALLTYPE=FGB/FGBPS.
- OLI PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
- OLI PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
- OLI PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
- ONLY SS7 TRUNK ORIGINATIONS CAN SPECIFY PORTEDDN PARAMETER
- PORTEDDN PARAMETER NOT SUPPORTED - NP VERIFY OFFICE FOR LRNS NOT PURCHASED
- PORTEDDN PARAMETER MUST BE 10 DIGITS
- PRESUBSC PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
- PRESUBSC PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
- PRESUBSC PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
- PSN CANNOT BE ENTERED WITH RPOA OR ICPI
- RPOA/ICPI MUST BE FOUR DIGIT BCD
- SAT PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
- SAT PARAMETER NOT SUPPORTED - BASIC LDP IS NOT ACTIVE
- SAT PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
- SYSTEM ERROR = No terminal process could be created in the administrative module (AM). This is probably a temporary condition. If this happens repeatedly, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.
- TG CANNOT BE ENTERED WITH DN OR MLHG = The only valid origination combinations for packet are DN, MLHG, DN and MLHG, or TG.
- TNS PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
- TNS PARAMETER MUST BE DIGITS = The circuit code and carrier ID in TNS parameter must contain digits only.
- TNS PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
- TNS PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
- TNSC PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
- TNSC PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
- TNSC PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
- WBCHANNEL PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
- WBCHANNEL PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE
- WBCHANNEL PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
- WBRATE PARAMETER CANNOT BE ENTERED WITH DN OR MLHG
- WBRATE PARAMETER NOT SUPPORTED - BASIC LDP FEATURE IS NOT ACTIVE

- WBRATE PARAMETER NOT SUPPORTED - VERIFY OFFICE FOR LDP IS NOT ACTIVE
- PF = Printout follows. Followed by the appropriate output message. May also include:
- EVENT n = Request (identified by the number n) has been accepted and is being processed. The VFY:OFC output message may contain multiple segments. Each segment will contain this event number.
- RL = Retry later. May also include:
- NO STACK SPACE = No stack space is available in the AM. This is probably a temporary condition. If this happens repeatedly, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.
 - NO SYSTEM RESOURCE = No process control blocks (PCBs) in the AM are available. This is probably a temporary condition. If this happens repeatedly, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.
 - UNABLE TO SEND MSG = The AM is unable to send messages. This is probably a temporary condition. If this happens repeatedly, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.
 - VERIFY IN PROGRESS = Another office verification is currently in progress. Only one verification can be done at a time.

5. REFERENCES

Output Message(s):
VFY:OFC

Other Manual(s):
Where 'x' is the release-specific version of the document.

235-118-251 *Recent Change Menu Mode Text Interface*
235-118-25x *Recent Change Procedures*
235-118-25x *Recent Change Reference*
235-600-11x *Translations Data*
235-200-110 *Long Distance Platform*

ID VFY:PAUTH
RELEASE 5E15 and later
COMMAND GROUP AUTH
APPLICATION 5,3B

1. PURPOSE

Requests the verification of a person's identity.

Format 1 verifies a person identity and the person's last login date and time. If the optional identity (IDENT) parameter is not specified, the whole person authority database (PAUTH) is printed showing all person identities and last login times.

Format 2 verifies person identities with the these characteristics:

- Those that surpass a particular number of days since last logging in.
- Those that surpass a particular number of days for a single login session.
- Those that have never logged in.

This input message is used in administering security of the maintenance interface. Refer to the Routine Operations and Maintenance manual for authority administration information.

2. FORMAT

[1] VFY:PAUTH[:IDENT="a"];
[2] VFY:PAUTH:DORMANT=b;

3. EXPLANATION OF MESSAGE

- a = Identity of the person to whom the associated date and time applies, in one to eight letters and/or digits.
- b = Number of days considered dormant, an integer from 1 to 99999 inclusive.

4. SYSTEM RESPONSE

- NG = No good. May also include:
- NO DORMANT USERS PRESENT = The are no dormant person identities falling within the specified number of days.
 - NON-EXISTENT PERSON IDENTITY = The given person identity does not exist in the person authority database.
 - UNABLE TO ACCESS AUTHORITY ADMINISTRATION = The person authority database is inaccessible.
- PF = Printout follows. Followed by the VFY:PAUTH output message.

5. REFERENCES

Input Message(s):
ADD:PAUTH
CHG:PAUTH
DEL:PAUTH

Output Message(s):
REPT:LOGIN
VFY:PAUTH

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

ID VFY:PCGRP
RELEASE 5E15 and later
COMMAND GROUP N/A
APPLICATION 5,3B

1. PURPOSE

Verifies the person-command group (PCGRP) relation for a given person identity (IDENT). All command groups and profiles assigned to IDENT are printed using the VFY:PCGRP output message.

This input message is used in administering security of the maintenance interface. Refer to the Routine Operations and Maintenance manual for authority administration information.

2. FORMAT

VFY:PCGRP:IDENT=a;

3. EXPLANATION OF MESSAGE

a = Identity of the person in one to eight letters and/or digits.

4. SYSTEM RESPONSE

NG = No good. May also include:

- NON-EXISTENT PERSON IDENTITY = The given person identity does not exist in the person authority database.
- NO AUTHORITY GROUPS ASSIGNED TO THIS PERSON = No command groups or profiles have been assigned to this person identity; refer to the ADD:PCGRP and ADD:PROFL input messages.
- UNABLE TO ACCESS AUTHORITY ADMINISTRATION = The person authority database is inaccessible.

PF = Printout follows. Followed by output message VFY:PCGRP.

5. REFERENCES

Input Message(s):

ADD:PAUTH
ADD:PCGRP
ADD:PROFL
CHG:PAUTH
CHG:PROFL
DEL:PAUTH
DEL:PCGRP
DEL:PROFL
VFY:PAUTH
VFY:PROFL

Input Appendix(es):

APP:COMMAND-GRP

Output Message(s):

VFY:PAUTH
VFY:PROFL

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

ID VFY:PROFL
RELEASE 5E15 and later
COMMAND GROUP N/A
APPLICATION 5,3B

1. PURPOSE

Verifies all profile names in the profile authority database (PROFL), or verifies the command groups associated with a given profile identity (IDENT) if the optional IDENT parameter is specified.

This input message is used in administering security of the maintenance interface. Refer to the Routine Operations and Maintenance manual for authority administration information.

2. FORMAT

VFY:PROFL[:IDENT=a];

3. EXPLANATION OF MESSAGE

a = Identity of the profile in one to eight letters and/or digits.

4. SYSTEM RESPONSE

NG = No good. May also include:

- NO AUTHORITY GROUPS ASSIGNED TO THIS PROFILE = The profile does not have any command groups assigned to it.
- NON-EXISTENT PROFILE IDENTITY = The given profile identity does not exist in the profile authority database.
- UNABLE TO ACCESS PROFILE ADMINISTRATION = The profile authority database is inaccessible.

PF = Printout follows. Followed by the VFY:PROFL output message.

5. REFERENCES

Input Message(s):

ADD:PROFL
CHG:PROFL
DEL:PROFL

Input Appendix(es):

APP:COMMAND-GRP

Output Message(s):

VFY:PROFL

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

ID VFY:RDTA-A
RELEASE 5E15 only
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests verification of an active remote digital test access (RDTA) session for a specific port under test (PUT). This request will verify that the ports involved in an RDTA session are connected as intended. The PUT is always used on the input request to identify the session for verification.

The verification begins by accessing the switching module (SM), where the PUT on the input request resides, to determine the actual physical connection. That information is then compared with the session data in the administrative module (AM) for consistency. If there is consistency, a VFY:RDTA success output message is sent in response to the input request to describe the connection. Otherwise, a VFY:RDTA failure message is sent describing the inconsistency or reason for failure. An OP:RDTA input message may be executed to determine a port name for possible verification or to access additional information on a particular RDTA session.

2. FORMAT

VFY:RDTA,a[,CH=u];

3. EXPLANATION OF MESSAGE

Note: Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

a = Port identification. Valid value(s):

AIUEN=d-1-v-w
BST=b-c
DEN=d-e-f-g
DN=h
I LEN=d-i-j-k
LCEN=d-1-m-n
LCKEN=d-1-e ¹ -v-w
MLHG=o-p
INEN=d-x-j-k
NEN=d-x-y-z-a ¹ -b ¹ -c ¹ -d ¹
OAP0=b
OPT=b-c
PKTDN=h
RTRS=q-r
TKGMN=s-t
PLTEN=d-f ¹ -g ¹ -h ¹ -i ¹

b = Operator service center number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

c = Relative position number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

d = Switching module number.

- e = Digital line and trunk unit (DLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f = Digital facility interface (DFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- g = Digital channel number. If this is a DFI-2, channels 1-24 are associated with T1-A and channels 25-48 are associated with facility T1-B.
- h = The DN. This parameter can only be used to identify channels associated with DSLs.
- i = Integrated digital carrier unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- j = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- k = RT line number or PUB43801 channel. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- l = Integrated services line unit (ISLU) or access interface unit (AIU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- m = Line group controller number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- n = Line card number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- o = Multi-line hunt group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- p = Multi-line hunt group member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- q = Data link relative group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- r = Data link relative member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- s = Trunk group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- t = Trunk group member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- u = Channel type (not valid for DEN and TKGMN port identification). Valid value(s):
 - B1 = Channel B1.
 - B2 = Channel B2.
 - D = D-channel (default).
- v = Line board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages Manual.
- w = Line circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages Manual.
- x = Digital networking unit - synchronous optical network (SONET) (DNU-S) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages Manual.
- y = Data group (DG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages Manual.

- z = SONET termination equipment (STE) facility number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages Manual.
- a¹ = Synchronous transport signal (STS) facility number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages Manual.
- b¹ = Virtual tributary group (VTG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages Manual.
- c¹ = Virtual tributary member (VTM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages Manual.
- d¹ = Digital signal level 0 (DS0) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages Manual.
- e¹ = Line group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages Manual.
- f¹ = Peripheral control and timing (PCT) line and trunk unit (PLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages Manual.
- g¹ = PCT facility interface (PCTFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages Manual.
- h¹ = Tributary number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages Manual.
- i¹ = Channel number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages Manual.

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted. Followed by VFY:RDTA output message.
- RL = Retry later. Valid value(s):
- FAILED TO CREATE PROCESS = A system error has occurred. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.
 - TOO MANY PROCESSES ACTIVE = The request has been denied, probably due to system load.

5. REFERENCES

Input Message(s):
EXC:RDTA
OP:RDTA
STP:RDTA
UPD:RDTA

Output Message(s):
EXC:RDTA
OP:RDTA
STP:RDTA
UPD:RDTA
VFY:RDTA

Input Appendix(es):
APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-190-104 *ISDN Feature Description*
235-900-341 *National ISDN Basic Rate Interface Specification*

ID VFY:RDTA-B
RELEASE 5E16(1) and later
COMMAND GROUP TRKLN
APPLICATION 5

1. PURPOSE

Requests verification of an active remote digital test access (RDTA) session for a specific port under test (PUT). This request will verify that the ports involved in an RDTA session are connected as intended. The PUT is always used on the input request to identify the session for verification.

The verification begins by accessing the switching module (SM), where the PUT on the input request resides, to determine the actual physical connection. That information is then compared with the session data in the administrative module (AM) for consistency.

If there is consistency, a VFY:RDTA success output message is sent in response to the input request to describe the connection. Otherwise, a VFY:RDTA failure message is sent describing the inconsistency or reason for failure. An OP:RDTA input message may be executed to determine a port name for possible verification or to access additional information on a particular RDTA session.

2. FORMAT

VFY:RDTA,a[,CH=u];

3. EXPLANATION OF MESSAGE

Refer to the Acronym section of the Input Messages manual for the full expansion of acronyms shown in the format.

a = Port identification. Valid value(s):

AIUEN=d-1-v-w
BST=b-c
DEN=d-e-f-g
DN=h
ILEN=d-i-j-k
LCEN=d-l-m-n
LCKEN=d-l-e¹-v-w
MLHG=o-p
INEN=d-x-j-k
NEN=d-x-y-z-a¹-b¹-c¹-d¹
OAPO=b
OPT=b-c
PKTDN=h
PLTEN=d-f¹-g¹-h¹-i¹
RTRS=q-r
TKGMN=s-t
OIUEN=d-j¹-k¹-z-a¹-b¹-c¹-d¹

b = Operator service center number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

c = Relative position number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

d = Switching module number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

e = Digital line and trunk unit (DLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

- f = Digital facility interface (DFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- g = Digital channel number. If this is a DFI-2, channels 1-24 are associated with T1-A and channels 25-48 are associated with facility T1-B.
- h = The DN. This parameter can only be used to identify channels associated with DSLs.
- i = Integrated digital carrier unit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- j = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- k = RT line number or PUB43801 channel. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- l = Integrated services line unit (ISLU) or access interface unit (AIU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- m = Line group controller number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- n = Line card number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- o = Multi-line hunt group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- p = Multi-line hunt group member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- q = Data link relative group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- r = Data link relative member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- s = Trunk group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- t = Trunk group member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- u = Channel type (not valid for DEN and TKGMN port identification). Valid value(s):
 - B1 = Channel B1.
 - B2 = Channel B2.
 - D = D-channel (default).
- v = Line board number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- w = Line circuit number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- x = Digital networking unit - synchronous optical network (SONET) (DNU-S) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- y = Data group (DG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- z = SONET termination equipment (STE) facility number. For OIU-NAR, it is OC-3. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

- a¹ = Synchronous transport signal (STS) facility number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b¹ = Virtual tributary group (VTG) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c¹ = Virtual tributary member (VTM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d¹ = Digital signal level 0 (DS0) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e¹ = Line group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- f¹ = Peripheral control and timing (PCT) line and trunk unit (PLTU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- g¹ = PCT facility interface (PCTFI) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- h¹ = Tributary number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- i¹ = Channel number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- j¹ = Optical Interface Unit (OIU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- k¹ = Protection Group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted. Followed by the VFY:RDTA output message.
- RL = Retry later. May also include:
- FAILED TO CREATE PROCESS = A system error has occurred. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.
 - TOO MANY PROCESSES ACTIVE = The request has been denied, probably due to system load.

5. REFERENCES

Input Message(s):

EXC:RDTA
OP:RDTA
STP:RDTA
UPD:RDTA

Output Message(s):

EXC:RDTA
OP:RDTA
STP:RDTA
UPD:RDTA
VFY:RDTA

Input Appendix(es):

APP:RANGES

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-190-104 *ISDN Feature Description*
235-900-341 *National ISDN Basic Rate Interface Specification*

ID VFY:RTBM
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

Requests verification of the amount of Real Time Billing Memory (RTBM) and the amount currently in use. Verification can be given for all switching module (SM) types.

2. FORMAT

VFY:RTBM,SM=a;

3. EXPLANATION OF MESSAGE

a = SM number.

4. SYSTEM RESPONSE

PF = Printout follows. Request accepted. The VFY:RTBM output message will follow.
RL = Retry later. SM is isolated.

5. REFERENCES

Input Message(s):
CFR:RTBM

Output Message(s):
CFR:RTBM
VFY:RTBM

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-200-110 *Long Distance Platform*

ID VFY:SAMEM
RELEASE 5E15 and later
COMMAND GROUP SM
APPLICATION 5

1. PURPOSE

The VFY:SAMEM input message requests a report of the amount of memory configured for the Stand Alone Billing Memory (SABM) and the amount currently in use. This command can be used for all switching module (SM) types.

2. FORMAT

VFY:SAMEM,SM=a;

3. EXPLANATION OF MESSAGE

a = SM number.

4. SYSTEM RESPONSE

PF = Printout follows. Request accepted. The VFY:SAMEM output message will follow.

RL = Retry later. SM is isolated.

5. REFERENCES

Input Message(s):
CFR:SAMEM

Output Message(s):
CFR:SAMEM
VFY:SAMEM

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-190-103 *Business and Residence Feature Description*

235-190-115 *Local and Toll System Features*

235-190-130 *Local Area Signaling Services*

235-900-113 *Product Specification*

ID VFY:TAPE
RELEASE 5E15 and later
COMMAND GROUP FHADM
APPLICATION 5,3B

1. PURPOSE

Requests verification of the readability of information on administrative module (AM) tapes and the consistency of corresponding hash sums.

System tapes are formatted as a series of headers, each followed by a number of data blocks (or records). A header contains information concerning the number of data blocks which follow it and the size of the blocks. The last header on the tape has no associated data records and is called the trailer header. Each header also contains a hash sum for the header itself and a hash sum for the total of all its corresponding records. Tape verification will check the header and data hash sums and make sure that all information is readable. On a digital audio tape (DAT), a single session or a single volume can be verified. A DAT may be formatted as a multi-volume tape; that is, it may contain headers and data blocks for more than one logical volume. One of these logical volumes or several logical volumes grouped together form a session, and several sessions may be found on a DAT.

2. FORMAT

VFY:TAPE,TD="a"[:RETRY=b][:SESS=c[,VOL=d]][:VERBOSE];

3. EXPLANATION OF MESSAGE

- a = Special device file name of the tape drive where system tape to be verified is loaded. Refer to the ECD/SG manual.
- b = Number of times to retry after tape read errors (default two). If a read attempt is unsuccessful, the tape will backspace and try to read again until either the attempt is successful or the retry count is exceeded.
- c = Number of the session that is to be verified. This option is only valid for a multi-volume DAT. The range of session numbers is 1-9.
- d = Number of the volume that is to be verified. This option is only valid for a multi-volume DAT. The range of volume numbers is 0-9.

If verbose option is specified, a line of output is produced for each header hash sum successfully read, and for each header or data record successfully read but required retries.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by VFY:TAPE output message.

5. REFERENCES

Output Message(s):
VFY:TAPE

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-600-30x *ECD/SG*

ID VFY:TAUTH
RELEASE 5E15 and later
COMMAND GROUP N/A
APPLICATION 5,3B

1. PURPOSE

Verifies all terminal identities in the terminal authority (TAUTH) database.

This input message is used in administering security of the maintenance interface. Refer to the Routine Operations and Maintenance manual for authority administration information.

2. FORMAT

VFY:TAUTH;

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

NG = No good. May also include:

- NO TERMINAL AUTHORITY PRESENT = No terminal authority exists; refer to the
ADD:TAUTH input message.
- UNABLE TO ACCESS AUTHORITY ADMINISTRATION = The terminal authority
database is inaccessible.

PF = Printout follows. Followed by the VFY:TAUTH output message.

5. REFERENCES

Input Message(s):

ADD:TAUTH

DEL:TAUTH

Output Message(s):

VFY:TAUTH

ID VFY:TCGRP
RELEASE 5E15 and later
COMMAND GROUP N/A
APPLICATION 5,3B

1. PURPOSE

Verifies terminal-command group (TCGRP) relation for a given terminal (TERM) identity. All command groups and profiles assigned to TERM are printed using the VFY:TCGRP output message.

This input message is used in administering security of the maintenance interface. Refer to the Routine Operations and Maintenance manual for authority administration information.

2. FORMAT

VFY:TCGRP:TERM=a;

3. EXPLANATION OF MESSAGE

a = Terminal identity in four characters, starting with "tty".

4. SYSTEM RESPONSE

NG = No good.

- INVALID TERMINAL IDENTITY = The given terminal identity is either not four characters in length or does not start with "tty".
- NO AUTHORITY GROUPS ASSIGNED TO THIS TERMINAL = No command groups or profiles have been assigned to this terminal identity; refer to the ADD:TCGRP and ADD:PROFL input messages.
- NON-EXISTENT TERMINAL IDENTITY = The given terminal identity does not exist in the terminal authority database.
- UNABLE TO ACCESS AUTHORITY ADMINISTRATION = The terminal authority database is inaccessible.

PF = Printout follows. Followed by the VFY-TCGRP output message.

5. REFERENCES

Input Message(s):

ADD:PROFL
ADD:TAUTH
ADD:TCGRP
CHG:PROFL
DEL:PROFL
DEL:TAUTH
DEL:TCGRP
VFY:PROFL
VFY:TAUTH

Input Appendix(es):

APP:COMMAND-GRP

Output Message(s):

VFY:PROFL
VFY:TAUTH
VFY:TCGRP

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

ID WHEN:COND
RELEASE 5E15 and later
COMMAND GROUP SFTUTIL
APPLICATION 5,3B

1. PURPOSE

Starts a list of administrative module (AM) generic access package (GRASP) input messages that are to be performed when an external event breakpoint condition exists. The list of input messages is called an action list.

2. FORMAT

WHEN:COND=E;

3. EXPLANATION OF MESSAGE

An external event condition exists when the external event backplane signal becomes active.

Commands following a WHEN:COND input message are restricted to the following list. A maximum of five input messages is allowed in the action lists.

- ALW:{UTIL|UTILFLAG|UMEM}
- INH:{UTIL|UTILFLAG|UMEM}
- DUMP:{ADDR|PMEM|REG|UVAR}
- COPY: all forms of the input message, except process identification (PID) or PID source.
- LOAD: all forms of the input message.

Note: Refer to the message descriptions for the details of how the input messages are used within the WHEN input message.

The action list is terminated with the END:WHEN! input message.

E = Action list performed when an external event occurs.

4. SYSTEM RESPONSE

IP = In progress. Breakpoint condition is understood. The associated action list is expected to follow.

NG = No good. May also include:

- TOO MANY BREAKPOINTS = Only 20 breakpoints are permitted at one time.
- UCERR = The utility circuit is unavailable.

RL = Retry later. The system is in an overload condition or completing the previous OP:UMEM message.

5. REFERENCES

Input Message(s):

ALW:UMEM
ALW:UTIL
ALW:UTILFLAG
CLR:UTIL
CLR:UTILFLAG
COPY:ACTDISK
COPY:ADDR

COPY:BKDISK
COPY:DIFF-SRC-MHD
COPY:OOSDISK
COPY:PID
COPY:PTN-ALL
COPY:REG
COPY:SPDISK
COPY:TAPE-EMERDMP
COPY:TAPE-IN
COPY:TAPE-OUT
COPY:TAPE-TEST
COPY:UID
COPY:UVAR
DUMP:ADDR
DUMP:PMEM
DUMP:REG
DUMP:UVAR
END:WHEN
INH:UMEM
INH:UTIL
INH:UTILFLAG
INIT:UMEM
LOAD:ADDR
LOAD:DFC-PUMP
LOAD:DFC-RAM
LOAD:MHD
LOAD:PMEM
LOAD:REG
LOAD:UVAR
OP:UMEM
OP:UTIL
WHEN:UID

Output Message(s):
OP:UTIL
REPT:GRASP
WHEN:COND

ID WHEN:PID
RELEASE 5E15 and later
COMMAND GROUP SFTUTIL
APPLICATION 5,3B

1. PURPOSE

Requests that a list of administrative module (AM) generic access package (GRASP) messages be executed when a specified breakpoint condition exists. The list of messages is called an action list.

Two types of breakpoint conditions are recognized: instruction- execution conditions and data-access conditions.

Format 1 is used when instruction-execution breakpoints are required.

Format 2 is used when data-access breakpoints are required.

Instruction execution is detected by specifying a virtual address within a process. When the instruction at that address is executed, the action list is executed. The first byte of the instruction opcode expected to be found at that address must be specified in the message. The breakpoint definition is rejected if this opcode does not agree with the opcode found at the virtual address.

Data access is indicated by specifying both the virtual address within the process and the type of access to be detected: read, write, and read/write.

A data access breakpoint will fire if the location specified is addressed with the correct access type. A data access breakpoint over a range of data locations will fire if any location in the range is addressed with the correct access type.

Messages following the WHEN message are restricted to the following list. A maximum of five messages are allowed in action lists.

- ALW: {UTIL|UTILFLAG|UMEM}
- COPY: All forms of the message except process ID (PID) or utility ID (UID) source.
- DUMP: {ADDR|PMEM|REG|UVAR}
- INH: {UTIL|UTILFLAG|UMEM}
- LOAD: All forms of the message.

Note: Refer to the message description for the details of how the messages are used within the WHEN message.

The action list is terminated with the END:WHEN input message.

2. FORMAT

- [1] WHEN:PID=a,ADDR=b,OPC=e:EXC[,WORD]!
[2] WHEN:PID=a,ADDR={b[&&c][,L=d]}:{R|W|RW}[,WORD]!

3. EXPLANATION OF MESSAGE

- EXC = Execute the action list when the breakpoint address is executed.
- R = Trigger the action list when a read operation occurs on any part of the full memory word containing the specified byte address(es).
- RW = Trigger the action list when either the R or the W condition is met.
- W = Trigger the action list when a write operation occurs on any part of the full memory word containing the specified byte address(es).
- WORD = Interpret the address and length fields as words. If this option is omitted, they are assumed to be byte values.

- a = Process ID (PID) of the target process.
- b = Virtual byte address for the breakpoint, or the beginning address of a range of addresses, in decimal, octal, or hexadecimal notation.
- c = End address for a range of addresses.
- d = Length of a range of addresses in bytes.
- e = One-byte opcode expected to be found at the breakpoint address. The value is checked for software implemented breakpoints only.

4. SYSTEM RESPONSE

- IP = In progress. Breakpoint condition is understood. The associated action list is expected to follow.
- NG = No good. May also include:
 - BAD PID = The process ID is for a process for which dumps are not permitted.
 - TOO MANY BREAKPOINTS = Only 20 breakpoints are permitted at one time.
 - UCERR = The utility circuit is unavailable.
- RL = Retry later. The system is in an overload condition or completing the previous OP:UMEM message.
- ?A = Action field or command code contains an error. It may mean that the command code was incorrectly typed or that a field delimiter was omitted. May also include:
 - INVALID KEY WORD = The message is not allowed in a WHEN action list. The END:WHEN input message is expected after the fifth action.
- ?I = General syntax error or:
 - RANGE ERROR (PID) = Process ID is out of range.
 - RANGE ERROR (OPC) = One byte opcode is expected.
 - INCONSISTENT DATA (ADDR) = Address range must be in ascending order.

5. REFERENCES

Input Message(s):

ALW:UMEM
ALW:UTIL
ALW:UTILFLAG
CLR:UTIL
CLR:UTILFLAG
COPY:ACTDISK
COPY:ADDR
COPY:BKDISK
COPY:DIFF-SRC-MHD
COPY:OOSDISK
COPY:PID
COPY:PTN-ALL
COPY:REG
COPY:SPDISK
COPY:TAPE-EMERDMP
COPY:TAPE-IN
COPY:TAPE-OUT
COPY:TAPE-TEST
COPY:UID
COPY:UVAR

DUMP:ADDR
DUMP:PMEM
DUMP:REG
DUMP:UVAR
END:WHEN
INH:UMEM
INH:UTIL
INH:UTILFLAG
INIT:UMEM
LOAD:ADDR
LOAD:DFC-PUMP
LOAD:DFC-RAM
LOAD:MHD
LOAD:PMEM
LOAD:REG
LOAD:UVAR
OP:ST-PROC
OP:UMEM
OP:UTIL
WHEN:UID

Output Message(s):
OP:UTIL
WHEN:PID
REPT:GRASP

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID WHEN:RUTIL
RELEASE 5E15 and later
COMMAND GROUP SFTUTIL
APPLICATION 5

1. PURPOSE

Requests a set of the given break point at the specified common network interface (CNI) ring node with the action-list provided.

The results of this operation are displayed. On a successful break point setup, the break point is automatically inhibited (disabled). The user must use the ALW:RUTIL or ALW:RUTILFLAG input request to enable this break point. In a given node, the maximum number of outstanding <action-list> items allowed is 25. The user is prompted for <action-list> items. Nested WHEN:RUTIL input requests are not allowed. Valid action-list input requests are:

ALW:RUTIL
ALW:RUTILFLAG
INH:RUTIL
INH:RUTILFLAG

The remaining input options are valid only within a WHEN action-list:

DUMP:ADDR
DUMP:REG
LOAD:BYTE
LOAD:REG
LOAD:SHORT
LOAD:WORD

The action-list is entered at the WHEN prompt after the WHEN input request is entered. The action-list is terminated by the END:WHEN input request.

Warning: *Incorrect use of this request may interrupt operation of a node on the CNI ring or the whole CNI ring.*

2. FORMAT

```
WHEN:RUTIL=a-b,AP:ADDR=c,OPC=d:EXC;. . .  
  . . .[ALW:RUTIL=a-b,AP[:MHIT=p];]. . .  
  . . .[ALW:RUTILFLAG=a-b,AP:BP=o[,MHIT=p];]. . .  
  . . .[DUMP:ADDR=e,L=f;]. . .  
  . . .[DUMP:REG=g;]. . .  
  . . .[INH:RUTIL=a-b,AP;]. . .  
  . . .[INH:RUTILFLAG=a-b,AP:BP=o;]. . .  
  . . .[LOAD:BYTE=h:DATA,D=i;]. . .  
  . . .[LOAD:REG=g:DATA,D=j;]. . .  
  . . .[LOAD:SHORT=k:DATA,D=l;]. . .  
  . . .[LOAD:WORD=m:DATA,D=n;]. . .  
  . . .END:WHEN;
```

3. EXPLANATION OF MESSAGE

- AP = Attached processor.
- a = Group number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Member number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c = Address of the break point in hexadecimal. This must be the address of the first byte of a target processor instruction.

- d = Opcode of text where break point is placed in hexadecimal.
e = Address to begin dump in hexadecimal.
f = Number of bytes to dump in decimal.
g = Name of the register to dump or load. Valid value(s):

68000 and 68030 CPU's	68030 CPU only:
A0, A1, A2, A3,	DFC, MMUSR, MSP,
A4, A5, A6, A7,	SFC, SRPH, SRPL,
D0, D1, D2, D3,	TC, TT0, TT1,
D4, D5, D6, D7,	VBR, VOFSET
ISP, SR, PC, TRADR,	CAAR, CACR, CCR, CRPH,
USP	CRPL

- h = Address to load data in hexadecimal.
i = Data value to load in hexadecimal. The data provided must be a byte value.
j = Data value to load in hexadecimal. (a maximum of four bytes)
k = Address to load data in hexadecimal. The address provided is expected to be an even address.
l = Data value to load in hexadecimal. The data provided is expected to be a two-byte value.
m = Address to load data in hexadecimal. The address provided is expected to be on a four-byte boundary.
n = Data value to load in hexadecimal. The data provided is expected to be a four-byte value.
o = Specific break point to be allowed.
p = Maximum number of hits to be allowed for that break point. (If not specified MHIT is set to 10.)

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by WHEN:RUTIL output requests.

5. REFERENCES

Input Message(s):

ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG

Output Message(s):

ALW:RUTIL
ALW:RUTILFLAG

CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
REPT:RUTIL
WHEN:RUTIL

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*

ID WHEN:UID
RELEASE 5E15 and later
COMMAND GROUP SFTUTIL
APPLICATION 5,3B

1. PURPOSE

Requests that a list of administrative module (AM) generic access package (GRASP) messages that are to be performed when a specified breakpoint condition exists be triggered.

The list of messages is called an action list. Two types of breakpoint conditions are recognized: instruction execution conditions and data access conditions. Format 1 is used when instruction-execution breakpoints are required. Format 2 is used when data-access breakpoints are required. Instruction execution is detected by specifying a virtual address within a process. When the instruction at that address is executed, the action list is executed. The first byte of the instruction opcode expected to be found at that address must be specified in the message. The breakpoint definition is rejected if this opcode does not agree with the opcode found at the virtual address. Data access is indicated by specifying both the virtual address within a process and the type of access to be detected: read, write, or read-write. A data access breakpoint will fire if the location specified is addressed with the correct access type. A data access breakpoint over a range of data locations will fire if any location in the range is addressed with the correct access type. Messages following the WHEN message are restricted to the following list. A maximum of five messages is allowed in action lists.

ALW:{UTIL|UTILFLAG|UMEM}

COPY: = All forms of the message, except PID or UID source.

DUMP:{ADDR|PMEM|REG|UVAR}

INH:{UTIL|UTILFLAG|UMEM}

LOAD: = All forms of the message.

Note: Refer to the message descriptions for the details of how the messages are used within the WHEN message.

The action list is terminated with the END:WHEN message.

2. FORMAT

[1] WHEN:UID=a,ADDR=b,OPC=e:EXC[,WORD];
[2] WHEN:UID=a,ADDR={b[&&c][,L=d]}:{R|W|RW}[,WORD];

3. EXPLANATION OF MESSAGE

EXC = Trigger the action list when the breakpoint address is executed.

R = Trigger the action list when a read operation occurs on any part of the full memory word containing the specified byte address(es).

RW = Trigger the action list when either the R or the W condition is met.

W = Trigger the action list when a write operation occurs on any part of the full memory word containing the specified byte address(es).

WORD = Interpret address and length fields as words. If this option is omitted, they are assumed to be byte values.

a = Utility ID (UID) number of target process.

b = Virtual byte address for the breakpoint or first address in a range of addresses. Specified in decimal, octal, or hexadecimal notation.

c = End address for a range of addresses.

- d = Length of a range of addresses in bytes.
- e = One byte opcode expected to be found at the breakpoint address. The value is only checked for software implemented breakpoints.

4. SYSTEM RESPONSE

- IP = In progress. Breakpoint condition is understood. The associated action list is expected to follow.
- NG = No good. May also include:
- BAD UID = The UID is for a process for which dumps are not permitted.
 - TOO MANY BREAKPOINTS = Only 20 breakpoints are permitted at one time.
 - UCERR = The utility circuit is unavailable.
- RL = Retry later. The system is in an overload condition or completing the previous OP:UMEM or message.
- ?A = Action field or command code contains an error. It may mean that the command code was incorrectly typed or that a field delimiter was omitted. May also include:
- INVALID KEYWORD = The message is not allowed in a WHEN action list.
END:WHEN expected after fifth action.
- ?I = General syntax error or:
- INCONSISTENT DATA (ADDR) = Address range must be in ascending order.
 - RANGE ERROR (OPC) = One byte opcode is expected.
 - RANGE ERROR (UID) = Utility ID is out of range.

5. REFERENCES

Input Message(s):

ALW:UMEM
ALW:UTIL
ALW:UTILFLAG
CLR:UTIL
CLR:UTILFLAG
COPY:ACTDISK
COPY:ADDR
COPY:BKDISK
COPY:DIFF-SRC-MHD
COPY:OOSDISK
COPY:PID
COPY:PTN-ALL
COPY:REG
COPY:SPDISK
COPY:TAPE-EMERDMP
COPY:TAPE-IN
COPY:TAPE-OUT
COPY:TAPE-TEST
COPY:UID
COPY:UVAR
DUMP:ADDR
DUMP:PMEM
DUMP:REG
DUMP:UVAR
END:WHEN

INH:UMEM
INH:UTIL
INH:UTILFLAG
INIT:UMEM
LOAD:ADDR
LOAD:DFC-PUMP
LOAD:DFC-RAM
LOAD:MHD
LOAD:PMEM
LOAD:REG
LOAD:UVAR
OP:UMEM
OP:UTIL
WHEN:PID

Output Message(s):
OP:UTIL
WHEN:UID
REPT:GRASP

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID WHEN:UT-CMP
RELEASE 5E15 and later
COMMAND GROUP SFTUTIL
APPLICATION 5

1. PURPOSE

Format 1 requests that a temporary generic utility WHEN breakpoint be defined using an address of an application program in the specified communications module processor (CMP).

Format 2 requests that a temporary generic utility WHEN breakpoint be defined using the symbolic address of an application program in the specified CMP. Format 3 requests that a generic utility timed WHEN be defined in the specified CMP. Format 4 defines a matching WHEN input message. The matching WHEN input message is only supported on CM Model 3 CMPs. Format 5 defines an instruction access address WHEN input message. The instruction access address WHEN input message is only supported on CM Model 3 CMPs. Format 6 defines a data address access WHEN input message. The data address access WHEN input message is only supported on CM Model 3 CMPs. All formats give the user the ability to sequence through a defined list of generic utility input messages at a given point in the application code (breakpoint formats 1 & 2), or at an approximate time interval (timed format 3), when a complete match is made on the E-Bus (matching format 4), the microprocessor fetches the specified instruction (instruction address format 5), or microprocessor detects the specified access on the data address (data access format 6). This message may be used together with any of the other CMP generic utility input messages (refer to the input messages listed in the **REFERENCES** section). If this message is used together with other generic utility input messages, the END:UT-CMP input message may be used to signal the end of the series of messages.

Note: Generic utility WHEN input messages may be removed from processors by various software maintenance/recovery activities (that is, pumps, initializations, audits, and so forth).

Warning: *The user takes responsibility for any effects on system operation that result from the use of this input message. Know the effects of the message before using it.*

2. FORMAT

```
[1] WHEN:UT:CMP=a,{MATE|PRIM},ADDR=b,OPC=f
    [,HIT=h][,FOREVER][,NOPRINT][,UTILFLAG=i]{!|;}
[2] WHEN:UT:CMP=a,{MATE|PRIM},{FUNC=c|SYMIDX=d}
    [,OFF=e,OPC=f][,HIT=h][,FOREVER][,NOPRINT][,UTILFLAG=i]{!|;}
[3] WHEN:UT:CMP=a,{MATE|PRIM},TIME=g
    [,HIT=h][,FOREVER][,NOPRINT][,UTILFLAG=i]{!|;}
[4] WHEN:UT:CMP=a,{MATE|PRIM},ADRS=j[,AMSK=k][,DATA=l][,DMSK=m][,DATAH=n][,DHMSK=o]
    [,OPER=p][,OMSK=q][,HIT=h][,FOREVER][,NOPRINT][,UTILFLAG=i]{!|;}
[5] WHEN:UT:CMP=a,{MATE|PRIM},IABR=r
    [,HIT=h][,FOREVER][,NOPRINT][,UTILFLAG=i]{!|;}
[6] WHEN:UT:CMP=a,{MATE|PRIM},DABR=s
    [,HIT=h][,FOREVER][,NOPRINT][,UTILFLAG=i]{!|;}
```

3. EXPLANATION OF MESSAGE

FOREVER = Allow the WHEN to be hit an unlimited number of times. If neither HIT=h nor FOREVER is specified, the hit count 'h' defaults to 1.

MATE = Execute this input message in the standby CMP.

NOPRINT = Suppress the WHEN:UT-CMP output message.

PRIM = Execute this input message in the active CMP.

a = CMP number.

- b = Absolute address at which to set the breakpoint.
- c = Symbolic name of the function. The name is entered as a string of up to 15 characters, enclosed in double quotation marks. If the symbol name is greater than 15 characters the symbol index number 'd' must be used to enter this input message using symbolics. The function's symbol index number can be determined by using the DUMP:UT-SYMID input message.
- d = Symbol index number of function. The symbol index can be determined for this processor by using the DUMP:UT-SYMID input message.
- e = Offset to be added to the function address in bytes (0 - 65535).
- f = Two bytes of opcode that is expected at address 'b' or within function 'c' or 'd' at offset 'e'. Opcode that is expected at address 'b' or within function 'c' or 'd' at offset 'e'. The following opcode size rules must be used:
- If switch CM complex is Model 2 or earlier, the opcode must be a two byte opcode.
 - If switch CM complex is Model 3, the opcode must be a four byte opcode.
- g = Time interval, in milliseconds, at which the timer expires (1 - 4,294,967,295).
- h = Number of times the WHEN may be activated before being automatically inhibited. If neither HIT=h nor FOREVER is specified, the hit count 'h' (1 - 32,767, default = 1).
- i = User-specified ID of the WHEN input message if it is unique within the system. If the WHEN ID number is not contained within the numeric range of 0 through 127 and there are fewer than 45 total WHEN input messages in the system, or if the WHEN input message is not unique, the system will automatically assign the next available WHEN ID number and no error message will be printed.
- j = Address that is to be compared on every bus cycle with the address actually on the bus. This value is used with the address mask 'k' to provide an address range for the comparison. The three lower address bits cannot be a range.
- k = Mask value for the address field 'j'. A "1" bit is a don't care indication for that bit. A "0" bit indicates that the address comparison between the bus and the contents of the address field 'j' must match for that bit.
- note: The last three bits are always 0.
- l = Data low that is to be compared on every bus cycle with the data actually on the bus. This value is used with the data mask 'm' to provide a range of data values for the comparison.
- m = Mask value for the data low field 'l'. A "1" bit is a don't care indication for that bit. A "0" bit indicates that the data comparison between the bus and the contents of the data field 'l' must match for that bit.
- Note: The Data low is the bits 0-31 of a 64 bit data bus. Data sizes less than 32 bits must be specified in the correct byte lane for the matcher to function correctly.
- n = Data high that is to be compared on every bus cycle with the data actually on the bus. This value is used with the data high mask 'o' to provide a range of data values for the comparison.
- o = Mask value for the data field 'n'. A "1" bit is a don't care indication for that bit. A "0" bit indicates that the data comparison between the bus and the contents of the data field 'n' must match for that bit.
- Note: The Data high are bits 32-63 of a 64 bit data bus. Data sizes less than 32 bits must be specified in the correct byte lane for the matcher to function correctly.

- p = Type of bus operation that is to be compared on every bus cycle with the type of operation actually being performed on the bus. This value is used with the operation mask 'q' to provide a range of operations for the comparison.
- Note: To set the WHEN for a basic read or write operation the OMSK field 'q' can be set to OMSK=h'ffffff7x, where x is the invert of the size of the operation (that is h'c = byte, h'a = short, h'6 = long word, h'e = double long word, and h'b = burst or 256 bit). The OPER field would need to be set to OPER=h'h'0000008x for a read and OPER=h'h'0000000x for a write and 'x' would match the size indicated in the invert of the OMSK field (that is h'3 = byte, h'5 = short, h'9 = long word, h'1 = double long word, and h'4 = burst). Refer to the global header regs/RGa74mat.h for further information.
- q = Mask value for the operation field 'p'. A "1" bit is a don't care indication for that bit. A "0" bit indicates that the comparison between the operation being performed on the bus and the contents of the operation field 'p' must match for that bit.
- r = The address of the instruction access to be trapped on.
- Note: This value is passed directly to the instruction address breakpoint register. It contains the instruction address to be compared against bits 0-29, breakpoint enable bit (UT ALLOW forces this to active) bit 30, and the translation enable bit 31. Refer to the global header regs/RG750mis.h for further information.
- s = The address and the type of data access to be trapped on. The lowest 3 bits are zero regardless of the value provided.
- Note: This value is passed directly to the data address breakpoint register. It contains the data address to be compared against bits 0-28, the translation enable bit 29, the data write enable bit 30, and the data read enable bit 31. To set the WHEN for a basic read operation the value should be h'xxxxxxy where x is the address to match, and y = h'x101 (x being the last of the address, translation is enabled, data write turned off, and data read turned on). For a write operation the address needs to be defined and y = h'x110 can be used. Refer to the global header regs/RG750mis.h for further information.

4. SYSTEM RESPONSE

Refer to the APP:UT-IM-REASON appendix in the Appendixes section of the Input Messages manual.

5. REFERENCES

Input Message(s):

ALW:UT-CMP
CLR:UT-CMP
COPY:UT-CMP
DUMP:UT-CMP
DUMP:UT-SYMID
ELSE:UT-CMP
END:UT-CMP
EXC:UT-CMP
IF:UT-CMP
IF:UT-CMP-ENDIF
INH:UT-CMP
LOAD:UT-CMP
OP:UT-CMP

Output Message(s):
WHEN:UT-CMP

Input Appendix(es):
APP:UT-IM-REASON

Other Manual(s):
System Maintenance Requirements and Tools
Audits

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID WHEN:UT-MCTSI-PI
RELEASE 5E15 and later
COMMAND GROUP SFTUTIL
APPLICATION 5

1. PURPOSE

Format 1 requests that a temporary generic utility WHEN breakpoint be defined using an address of an application program in the specified packet interface unit (PI).

Format 2 requests that a temporary generic utility WHEN breakpoint be defined using the symbolic address of an application program in the specified PI. Format 3 requests that a generic utility timed WHEN be defined in the specified PI. All formats give the user the ability to sequence through a defined list of generic utility input messages at a given point in the application code (breakpoint), or at an approximate time interval (timed).

Note: This input message is only supported on PIs of the PI2 hardware type.

Note: Generic utility WHEN input messages may be removed from processors by various software maintenance/recovery activities (that is, pumps, initializations, audits, and so forth).

Warning: *The user is responsible for any effects on system operation that result from the use of this input message. Know the effects of the message before using it.*

2. FORMAT

```
[1] WHEN:UT:MCTSI=a-b,PI,ADDR=c,OPC=g  
    [,HIT=i][,FOREVER][,NOPRINT][,UTILFLAG=j]{!|;}  
[2] WHEN:UT:MCTSI=a-b,PI,{FUNC=d|SYMIDX=e}  
    [,OFF=f,OPC=g][,HIT=i][,FOREVER][,NOPRINT][,UTILFLAG=j]{!|;}  
[3] WHEN:UT:MCTSI=a-b,PI,TIME=h  
    [,HIT=i][,FOREVER][,NOPRINT][,UTILFLAG=j]{!|;}
```

3. EXPLANATION OF MESSAGE

FOREVER = Allow the WHEN to be activated an unlimited number of times. If neither HIT=i nor FOREVER is specified, the hit count 'i' defaults to 1.

NOPRINT = Suppress the WHEN:UT-MCTSI output message.

a = Switching module (SM) number.

b = Side of the module controller/time-slot interchange (MCTSI).

c = Absolute address at which to set the breakpoint.

d = Symbolic name of the function. The name is entered as a string of up to 15 characters, enclosed in double quotation marks. If the symbol name is greater than 15 characters the symbol index number 'e' must be used to enter this input message using symbolics. The function's symbol index number can be determined by using the DUMP:UT-SYMID input message.

e = Symbol index number of function. The symbol index can be determined for this processor by using the DUMP:UT-SYMID input message.

f = Offset to be added to the function address in bytes (0 - 65535).

g = Two bytes of opcode that is expected at address 'c' or within function 'd' or 'e' at offset 'f'.

h = Time interval, in milliseconds, at which the timer expires (1 - 4,294,967,295).

- i = Number of times the WHEN may be activated before being automatically inhibited. If neither HIT=i nor FOREVER is specified, the hit count 'i' (1 - 32,767, default is 1).
- j = User-specified ID of the WHEN input message if it is unique within the system. If the WHEN ID number is not contained within the numeric range of 0 through 127 and there are fewer than 45 total WHEN input messages in the system, or if the WHEN message is not unique, the system will automatically assign the next available WHEN ID number and no error message will be printed.

4. SYSTEM RESPONSE

Refer to the APP:UT-IM-REASON appendix in the Appendixes section of the Input Messages manual.

5. REFERENCES

Input Message(s):

ALW:UT-MCTSI-PI
CLR:UT-MCTSI-PI
COPY:UT-MCTSI-PI
DUMP:UT-MCTSI-PI
DUMP:UT-SYMID
ELSE:UT-MCTSI-PI
END:UT-MCTSI-PI
EXC:UT-MCTSI-PI
IF:UT-MCTSI-PI
IF:UT-MCTSI-PE
INH:UT-MCTSI-PI
LOAD:UT-MCTSI-PI
OP:UT-MCTSI-PI

Output Message(s):

WHEN:UT-MCTSI-PI

Input Appendix(es):

APP:UT-IM-REASON

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits*

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID WHEN:UT-PSUPH-A
RELEASE 5E15 only
COMMAND GROUP SFTUTIL
APPLICATION 5

1. PURPOSE

Format 1 requests that a temporary generic utility WHEN breakpoint be defined using an address of an application program in the specified packet switch unit protocol handler (PSUPH).

Format 2 requests that a temporary generic utility WHEN breakpoint be defined using the symbolic address of an application program in the specified PSUPH. Format 3 requests that a generic utility timed WHEN be defined in the specified PSUPH. Format 4 requests that a generic utility instruction access address WHEN be defined in the specified PSUPH. The instruction access address WHEN input message is only supported in a PSUPH of the PHV5 hardware type. Format 5 requests that a generic utility data address access WHEN be defined in the specified PSUPH. The data address access WHEN input message is only supported in a PSUPH of the PHV5 hardware type. All formats give the user the ability to sequence through a defined list of generic utility input messages at a given point in the application code (breakpoint formats 1 & 2), or at an approximate time interval (timed format 3), the microprocessor fetches the specified instruction (instruction address format 4), or microprocessor detects the specified access on the data address (data access format 5).

Note: This input message is not supported on PSUPHs of the PH2 hardware type.

This message may be used together with any of the other PSUPH generic utility input messages (refer to the input messages listed in the **REFERENCES** section).

If this message is used together with other generic utility messages, the END:UT-PSUPH input message may be used to signal the end of the series of messages.

Note: Generic utility WHEN input messages may be removed from processors by various software maintenance recovery activities (that is, pumps, initializations, audits, and so forth).

Warning: *The user is responsible for any effects on system operation that result from the use of this input message. Know the effects of the message before using it.*

2. FORMAT

- [1] WHEN:UT:PSUPH=a-b-c-d,ADDR=e,OPC=i
[,HIT=k][,FOREVER][,NOPRINT][,UTILFLAG=1]{!|;}
- [2] WHEN:UT:PSUPH=a-b-c-d,{FUNC=f|SYMIDX=g}
[,OFF=h,OPC=i][,HIT=k][,FOREVER][,NOPRINT][,UTILFLAG=1]{!|;}
- [3] WHEN:UT:PSUPH=a-b-c-d,TIME=j
[,HIT=k][,FOREVER][,NOPRINT][,UTILFLAG=1]{!|;}
- [4] WHEN:UT:PSUPH=a-b-c-d,IABR=m
[,HIT=k][,FOREVER][,NOPRINT][,UTILFLAG=1]{!|;}
- [5] WHEN:UT:PSUPH=a-b-c-d,DABR=n
[,HIT=k][,FOREVER][,NOPRINT][,UTILFLAG=1]{!|;}

3. EXPLANATION OF MESSAGE

- FOREVER = Allow the WHEN to be activated an unlimited number of times. If neither HIT=k nor FOREVER is specified, the hit count 'k' defaults to 1.
- NOPRINT = Suppress the WHEN:UT-PSUPH output message.
- a = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b = Unit number (always 0).

- c = Shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d = Slot number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e = Absolute address at which to set the breakpoint.
- f = Symbolic name of the function. The name is entered as a string of up to 15 characters, enclosed in double quotation marks. If the symbol name is greater than 15 characters the symbol index number 'g' must be used to enter this input message using symbolics. The function's symbol index number can be determined by using the DUMP:UT-SYMID input message.
- g = Symbol index number of function. The symbol index can be determined for this processor by using the DUMP:UT-SYMID input message.
- h = Offset to be added to the function address in bytes (0 - 65535).
- i = Opcode that is expected at address 'e' or within function 'f' or 'g' at offset 'h'. The following opcode size rules must be used:
- If PSUPH is a PH[3-4,6,22], PHA, PHV[1-4] hardware type, the opcode must be a two byte opcode.
 - If PSUPH is a PHV5 hardware type, the opcode must be a four byte opcode.
- j = Time interval, in milliseconds, at which the timer expires (1 - 4,294,967,295).
- k = Number of times the WHEN may be activated before being automatically inhibited. If neither HIT=i nor FOREVER is specified, the hit count 'i' (default is 1).
- l = User-specified ID of the WHEN input message if it is unique within the system. If the WHEN ID number is not contained within the numeric range of 0 through 127 and there are fewer than 45 total WHEN input messages in the system, or if the WHEN input message is not unique, the system will automatically assign the next available WHEN ID number and no error message will be printed.
- m = The address of the instruction access to be trapped on.
- Note: This value is passed directly to the instruction address breakpoint register. It contains the instruction address to be compared against bits 0-29, breakpoint enable bit (UT ALLOW forces this to active) bit 30, and the translation enable bit 31. Refer to the global header regs/RGppcmis.h for further information.
- n = The address and the type of data access to be trapped on. The lowest 3 bits are zero regardless of the value provided.
- Note: This value is passed directly to the data address breakpoint register. It contains the data address to be compared against bits 0-28, the translation enable bit 29, the data write enable bit 30, and the data read enable bit 31. To set the WHEN for a basic read operation the value should be h'xxxxxxy where x is the address to match, and y = h'w101 (w being the last of the address i.e bit 28, translation is enabled, data write turned off, and data read turned on). For a write operation the address needs to be defined and y = h'w110 can be used. Refer to the global header regs/RGppcmis.h for further information.

4. SYSTEM RESPONSE

Refer to the APP:UT-IM-REASON appendix in the Appendixes section of the Input Messages manual.

5. REFERENCES

Input Message(s):

ALW:UT-PSUPH
CLR:UT-PSUPH
COPY:UT-PSUPH
DUMP:UT-PSUPH
DUMP:UT-SYMID
ELSE:UT-PSUPH
END:UT-PSUPH
EXC:UT-PSUPH
IF:UT-PSUPH
IF:UT-PSUPH-END
INH:UT-PSUPH
LOAD:UT-PSUPH
OP:UT-PSUPH

Output Message(s):

WHEN:UT-PSUPH

Input Appendix(es):

APP:RANGES
APP:UT-IM-REASON

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits*

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID WHEN:UT-PSUPH-B
RELEASE 5E16(1) - 5E20(1)
COMMAND GROUP SFTUTIL
APPLICATION 5

1. PURPOSE

Format 1 requests that a temporary generic utility WHEN breakpoint be defined using an address of an application program in the specified packet switch unit protocol handler (PSUPH).

Format 2 requests that a temporary generic utility WHEN breakpoint be defined using the symbolic address of an application program in the specified PSUPH.

Format 3 requests that a generic utility timed WHEN be defined in the specified PSUPH.

Format 4 requests that a generic utility instruction access address WHEN be defined in the specified PSUPH. The instruction access address WHEN input message is only supported in a PSUPH of the PHV5, PHV6, PH31, PHA2, or PHE2 hardware type.

Format 5 requests that a generic utility data address access WHEN be defined in the specified PSUPH. The data address access WHEN input message is only supported in a PSUPH of the PHV5, PHV6, PH31, PHA2, or PHE2 hardware type.

All formats give the user the ability to sequence through a defined list of generic utility input messages at a given point in the application code (breakpoint formats 1 & 2), or at an approximate time interval (timed format 3), the microprocessor fetches the specified instruction (instruction address format 4), or microprocessor detects the specified access on the data address (data access format 5).

This input message is not supported on PSUPHs of the PH2 hardware type.

This message may be used together with any of the other PSUPH generic utility input messages (refer to the input messages listed in the **REFERENCES** section).

If this message is used together with other generic utility messages, the END:UT-PSUPH input message may be used to signal the end of the series of messages.

Generic utility WHEN input messages may be removed from processors by various software maintenance recovery activities (that is, pumps, initializations, audits, and so forth).

Warning: *The user is responsible for any effects on system operation that result from the use of this input message. Know the effects of the message before using it.*

2. FORMAT

[1]	WHEN:UT:PSUPH=a-b-c-d,ADDR=e,OPC=i.[,HIT=k][,FOREVER][,NOPRINT][,UTILFLAG=1]{! ;}
[2]	WHEN:UT:PSUPH=a-b-c-d,{FUNC=f SYMIDX=g}.[,OFF=h,OPC=i][,HIT=k][,FOREVER][,NOPRINT][,UTILFLAG=1]{! ;}
[3]	WHEN:UT:PSUPH=a-b-c-d,TIME=j.[,HIT=k][,FOREVER][,NOPRINT][,UTILFLAG=1]{! ;}
[4]	WHEN:UT:PSUPH=a-b-c-d,IABR=m.[,HIT=k][,FOREVER][,NOPRINT][,UTILFLAG=1]{! ;}
[5]	WHEN:UT:PSUPH=a-b-c-d,DABR=n.[,HIT=k][,FOREVER][,NOPRINT][,UTILFLAG=1]{! ;}

3. EXPLANATION OF MESSAGE

- FOREVER** = Allow the WHEN to be activated an unlimited number of times. If neither HIT=k nor FOREVER is specified, the hit count 'k' defaults to 1.
- NOPRINT** = Suppress the WHEN:UT-PSUPH output message.
- a** = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b** = Packet switching unit (PSU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c** = Shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d** = Slot number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e** = Absolute address at which to set the breakpoint.
- f** = Symbolic name of the function. The name is entered as a string of up to 15 characters, enclosed in double quotation marks. If the symbol name is greater than 15 characters the symbol index number 'g' must be used to enter this input message using symbolics. The function's symbol index number can be determined by using the DUMP:UT-SYMID input message.
- g** = Symbol index number of function. The symbol index can be determined for this processor by using the DUMP:UT-SYMID input message.
- h** = Offset to be added to the function address in bytes (0 - 65535).
- i** = Opcode that is expected at address 'e' or within function 'f' or 'g' at offset 'h'. The following opcode size rules must be used:
- If PSUPH is a PH[3-4,6,22], PHA, PHV[1-4] hardware type, the opcode must be a two byte opcode.
 - If PSUPH is a PHV5, PHV6, PH31, PHA2, or PHE2 hardware type, the opcode must be a four byte opcode.
- j** = Time interval, in milliseconds, at which the timer expires (1 - 4,294,967,295).
- k** = Number of times the WHEN may be activated before being automatically inhibited. If neither HIT=i nor FOREVER is specified, the hit count 'i' (default is 1).
- l** = User-specified ID of the WHEN input message if it is unique within the system. If the WHEN ID number is not contained within the numeric range of 0 through 127 and there are fewer than 45 total WHEN input messages in the system, or if the WHEN input message is not unique, the system will automatically assign the next available WHEN ID number and no error message will be printed.
- m** = The address of the instruction access to be trapped on.
- This value is passed directly to the instruction address breakpoint register. It contains the instruction address to be compared against bits 0-29, breakpoint enable bit (UT ALLOW forces this to active) bit 30, and the translation enable bit 31. Refer to the global header regs/RGppcmis.h for further information.
- n** = The address and the type of data access to be trapped on. The lowest 3 bits are zero regardless of the value provided.
- This value is passed directly to the data address breakpoint register. It contains the data address to be compared against bits 0-28, the translation enable bit 29, the data write enable bit 30, and the data read enable bit 31. To set the WHEN for a basic read operation the value should be h'xxxxxxxxy where x is the address to match, and y =

h'w101 (w being the last of the address such as, bit 28, translation is enabled, data write turned off, and data read turned on). For a write operation the address needs to be defined and y = h'w110 can be used. Refer to the global header regs/RGppcmis.h for further information.

4. SYSTEM RESPONSE

Refer to the APP:UT-IM-REASON appendix in the Appendixes section of the Input Messages manual.

5. REFERENCES

Input Message(s):

ALW:UT-PSUPH
CLR:UT-PSUPH
COPY:UT-PSUPH
DUMP:UT-PSUPH
DUMP:UT-SYMID
ELSE:UT-PSUPH
END:UT-PSUPH
EXC:UT-PSUPH
IF:UT-PSUPH
IF:UT-PSUPH-END
INH:UT-PSUPH
LOAD:UT-PSUPH
OP:UT-PSUPH

Output Message(s):

WHEN:UT-PSUPH

Input Appendix(es):

APP:RANGES
APP:UT-IM-REASON

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits*

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID WHEN:UT-PSUPH-C
RELEASE 5E21(1) and later
COMMAND GROUP SFTUTIL
APPLICATION 5

1. PURPOSE

Format 1 requests that a temporary generic utility WHEN breakpoint be defined using an address of an application program in the specified packet switch unit protocol handler (PSUPH).

Format 2 requests that a temporary generic utility WHEN breakpoint be defined using the symbolic address of an application program in the specified PSUPH.

Format 3 requests that a generic utility timed WHEN be defined in the specified PSUPH.

Format 4 requests that a generic utility instruction access address WHEN be defined in the specified PSUPH. The instruction access address WHEN input message is not supported in a PSUPH of the PH[3-4,6,22], PHA, or PHV[1-4] hardware types.

Format 5 requests that a generic utility data address access WHEN be defined in the specified PSUPH. The data address access WHEN input message is not supported in a PSUPH of the PH[3-4,6,22], PHA, or PHV[1-4] hardware types.

All Formats give the user the ability to sequence through a defined list of generic utility input messages at a given point in the application code (breakpoint Formats 1 and 2), or at an approximate time interval (timed Format 3), the microprocessor fetches the specified instruction (instruction address Format 4), or microprocessor detects the specified access on the data address (data access Format 5).

This input message is not supported on PSUPHs of the PH2 hardware type.

This message may be used together with any of the other PSUPH generic utility input messages (refer to the input messages listed in the **REFERENCES** section).

If this message is used together with other generic utility messages, the END:UT-PSUPH input message may be used to signal the end of the series of messages.

Generic utility WHEN input messages may be removed from processors by various software maintenance recovery activities (that is, pumps, initializations, audits, and so forth).

Warning: *The user is responsible for any effects on system operation that result from the use of this input message. Know the effects of the message before using it.*

2. FORMAT

[1]	WHEN:UT:PSUPH=a-b-c-d,ADDR=e,OPC=i.[,HIT=k][,FOREVER][,NOPRINT][,UTILFLAG=1]{! ;}
[2]	WHEN:UT:PSUPH=a-b-c-d,{FUNC=f SYMIDX=g}.[,OFF=h,OPC=i][,HIT=k][,FOREVER][,NOPRINT][,UTILFLAG=1]{! ;}
[3]	WHEN:UT:PSUPH=a-b-c-d,TIME=j.[,HIT=k][,FOREVER][,NOPRINT][,UTILFLAG=1]{! ;}
[4]	WHEN:UT:PSUPH=a-b-c-d,IABR=m.[,HIT=k][,FOREVER][,NOPRINT][,UTILFLAG=1]{! ;}
[5]	WHEN:UT:PSUPH=a-b-c-d,DABR=n.[,HIT=k][,FOREVER][,NOPRINT][,UTILFLAG=1]{! ;}

3. EXPLANATION OF MESSAGE

- FOREVER** = Allow the WHEN to be activated an unlimited number of times. If neither HIT=k nor FOREVER is specified, the hit count 'k' defaults to 1.
- NOPRINT** = Suppress the WHEN:UT-PSUPH output message.
- a** = Switching module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- b** = Packet switching unit (PSU) number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- c** = Shelf number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- d** = Slot number. Refer to the APP:RANGES appendix in the Appendixes section of the Input Messages manual.
- e** = Absolute address at which to set the breakpoint.
- f** = Symbolic name of the function. The name is entered as a string of up to 15 characters, enclosed in double quotation marks. If the symbol name is greater than 15 characters the symbol index number 'g' must be used to enter this input message using symbolics. The function's symbol index number can be determined by using the DUMP:UT-SYMID input message.
- g** = Symbol index number of function. The symbol index can be determined for this processor by using the DUMP:UT-SYMID input message.
- h** = Offset to be added to the function address in bytes (0 - 65535).
- i** = Opcode that is expected at address 'e' or within function 'f' or 'g' at offset 'h'. The following opcode size rules must be used:
- If PSUPH is a PH[3-4,6,22], PHA, PHV[1-4] hardware type, the opcode must be a two byte opcode.
 - If PSUPH is any other hardware type, the opcode must be a four byte opcode.
- j** = Time interval, in milliseconds, at which the timer expires (1 - 4,294,967,295).
- k** = Number of times the WHEN may be activated before being automatically inhibited. If neither HIT=i nor FOREVER is specified, the hit count 'i' (default is 1).
- l** = User-specified ID of the WHEN input message if it is unique within the system. If the WHEN ID number is not contained within the numeric range of 0 through 127 and there are fewer than 45 total WHEN input messages in the system, or if the WHEN input message is not unique, the system will automatically assign the next available WHEN ID number and no error message will be printed.
- m** = The address of the instruction access to be trapped on.
- This value is passed directly to the instruction address breakpoint register. It contains the instruction address to be compared against bits 0-29, breakpoint enable bit (UT ALLOW forces this to active) bit 30, and the translation enable bit 31. Refer to the global header regs/RGppcmis.h for further information.
- n** = The address and the type of data access to be trapped on. The lowest 3 bits are zero regardless of the value provided.
- This value is passed directly to the data address breakpoint register. It contains the data address to be compared against bits 0-28, the translation enable bit 29, the data write enable bit 30, and the data read enable bit 31. To set the WHEN for a basic read operation the value should be h'xxxxxxy where x is the address to match, and y = h'w101 (w being the last of the address such as, bit 28, translation is enabled, data write

turned off, and data read turned on). For a write operation the address needs to be defined and y = h'w110 can be used. Refer to the global header regs/RGppcmis.h for further information.

4. SYSTEM RESPONSE

Refer to the APP:UT-IM-REASON appendix in the Appendixes section of the Input Messages manual.

5. REFERENCES

Input Message(s):

ALW:UT-PSUPH
CLR:UT-PSUPH
COPY:UT-PSUPH
DUMP:UT-PSUPH
DUMP:UT-SYMID
ELSE:UT-PSUPH
END:UT-PSUPH
EXC:UT-PSUPH
IF:UT-PSUPH
IF:UT-PSUPH-END
INH:UT-PSUPH
LOAD:UT-PSUPH
OP:UT-PSUPH

Output Message(s):

WHEN:UT-PSUPH

Input Appendix(es):

APP:RANGES
APP:UT-IM-REASON

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits*

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID WHEN:UT-SM-A
RELEASE 5E15 - 5E16(1)
COMMAND GROUP SFTUTIL
APPLICATION 5

1. PURPOSE

Format 1 requests that a temporary generic utility breakpoint be defined using and address of an application program in the specified switching module (SM/SM-2000).

Format 2 requests that a temporary generic utility WHEN breakpoint be defined using the symbolic address of an application program in the specified SM/SM-2000.

Format 3 requests that a generic utility timed WHEN be defined in the specified SM/SM-2000.

Format 4 defines a matching WHEN input message. The matching WHEN input message is only supported on SM-2000s.

All formats give the user the ability to sequence through a defined list of generic utility input messages at a given point in the application code (breakpoint), at an approximate time interval (timed), or when a complete match is made on the bus service node (matching).

This message may be used together with any of the other SM/SM-2000 generic utility input messages (refer to the input messages listed in the **REFERENCES** section).

If this message is used together with other generic utility input messages, the END:UT-SM input message may be used to signal the end of the series of messages.

Generic utility WHEN input messages may be removed from processors by various software maintenance/ recovery activities (that is, pumps, initializations, audits, and so forth).

Warning: *The user is responsible for any effects on system operation that result from the use of this input message. Know the effects of the message before using it.*

2. FORMAT

[1]	WHEN:UT:SM=a,ADDR=b,OPC=f[,HIT=h][,FOREVER].[,NOPRINT][,UTILFLAG=i]{! ;}
[2]	WHEN:UT:SM=a,{FUNC=c SYMIDX=d}[,OFF=e,OPC=f].[,HIT=h][,FOREVER][,NOPRINT][,UTILFLAG=i]{! ;}
[3]	WHEN:UT:SM=a,TIME=g[,HIT=h][,FOREVER][,NOPRINT].[,UTILFLAG=i]{! ;}
[4]	WHEN:UT:SM=a,ADRS=j[,AMSK=k][,DATA=1][,DMSK=m].[,OPER=n][,OMSK=o][,HIT=h][,FOREVER][,NOPRINT].[,UTILFLAG=i]{! ;}

3. EXPLANATION OF MESSAGE

FOREVER = Allow the WHEN to be hit an unlimited number of times. If neither HIT=h nor FOREVER is specified, the hit count 'h' defaults to one.

NOPRINT = Suppress the WHEN:UT-SM output message.

a = SM/SM-2000 number.

b = Absolute address at which to set the breakpoint.

c = Symbolic name of the function. The name is entered as a string of up to 15 characters, enclosed in double quotation marks. If the symbol name is greater than 15 characters the

symbol index number 'd' must be used to enter this input message using symbolics. The function's symbol index number can be determined by using the DUMP:UT-SYMID input message.

- d = Symbol index number of function. The symbol index can be determined for this processor by using the DUMP:UT-SYMID input message.
- e = Offset to be added to the function address. The offsets, in bytes, can range from 0-65535.
- f = Two bytes of opcode that is expected at address 'b' or within function 'c' or 'd' at offset 'e'.
- g = Time interval, in milliseconds, at which the timer expires (Upper limit of 4,294,967,295 milliseconds).
- h = Number of times the WHEN may be activated before being automatically inhibited. If neither HIT=h nor FOREVER is specified, the hit count 'h' defaults to one (upper limit of 32767).
- i = User-specified ID of the WHEN input message if it is unique within the system. If the WHEN ID number is not contained within the numeric range of 0 through 127 and there are fewer than 45 total WHEN input messages in the system, or if the WHEN input message is not unique, the system will automatically assign the next available WHEN ID number and no error message will be printed.
- j = Address that is to be compared on every bus cycle with the address actually on the bus. This value is used with the address mask 'k' to provide an address range for the comparison.
- k = Mask value for the address field 'j'. A "1" bit is a don't care indication for that bit. A "0" bit indicates that the address comparison between the bus and the contents of the address field 'j' must match for that bit.
- l = Data that is to be compared on every bus cycle with the data actually on the bus. This value is used with the data mask 'm' to provide a range of data values for the comparison.
- m = Mask value for the data field 'l'. A "1" bit is a don't care indication for that bit. A "0" bit indicates that the data comparison between the bus and the contents of the data field 'l' must match for that bit.
- n = Type of bus operation that is to be compared on every bus cycle with the type of operation actually being performed on the bus. This value is used with the operation mask 'o' to provide a range of operations for the comparison.

To set the WHEN for a basic read or write operation the OMSK field 'o' can be set to OMSK=h'00x03000, where x is the size of the operation (that is 0 = long word, 1 = byte, 2 = short, and 3 = quad long word). The OPER field would need to be set to OPER=h'00x02000 for a write and OPER=h'00x01000 for a read and 'x' would match the size indicated in the OMSK field. Another example is a mask that looks at the size of the operation, the type of operation (read/write) and ignores MCTSI side switches. Use a mask of 'omsk=h'ffcfbfd'. Refer to the global header smim/SMmp_mthop.h for further information.
- o = Mask value for the operation field 'n'. A "1" bit is a don't care indication for that bit. A "0" bit indicates that the comparison between the operation being performed on the bus and the contents of the operation field 'n' must match for that bit.

4. SYSTEM RESPONSE

Refer to APP:UT-IM-REASON appendix in the Appendixes section of the Output Messages manual.

5. REFERENCES

Input Message(s):

ALW:UT-SM
CLR:UT-SM
COPY:UT-SM
DUMP:UT-SM
DUMP:UT-SYMID
ELSE:UT-SM
END:UT-SM
EXC:UT-SM
IF:UT-SM
IF:UT-SM-ENDIF
INH:UT-SM
LOAD:UT-SM
OP:UT-SM

Output Message(s):

WHEN:UT-SM

Input Appendix(es):

APP:UT-IM-REASON

Output Appendix(es):

APP:UT-OM-REASON

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*

****WARNING****
INAPPROPRIATE USE OF THIS MESSAGE
MAY INTERRUPT OR DEGRADE SERVICE.
READ PURPOSE CAREFULLY.

ID WHEN:UT-SM-B
RELEASE 5E16(2) and later
COMMAND GROUP SFTUTIL
APPLICATION 5

1. PURPOSE

Format 1 requests that a temporary generic utility breakpoint be defined using and address of an application program in the specified switching module (SM/SM-2000).

Format 2 requests that a temporary generic utility WHEN breakpoint be defined using the symbolic address of an application program in the specified SM/SM-2000.

Format 3 requests that a generic utility timed WHEN be defined in the specified SM/SM-2000.

Format 4 defines a matching WHEN input message. The matching WHEN input message is only supported on SM-2000s.

Format 5 defines an instruction access address WHEN input message. The instruction access address WHEN input message is only supported on SMs with a software configuration of CNFG2KPPC.

Format 6 defines a data address access WHEN input message. The data address access WHEN input message is only supported on SMs with a software configuration of CNFG2KPPC.

All formats give the user the ability to sequence through a defined list of generic utility input messages at a given point in the application code (breakpoint Formats 1 and 2), at an approximate time interval (timed Format 3), when a complete match is made on the bus service node (matching Format 4), when the microprocessor fetches the specified instruction (instruction address format 5), or when the microprocessor detects the specified access on the data address (data access Format 6).

This message may be used together with any of the other SM/SM-2000 generic utility input messages (refer to the **REFERENCES** section).

If this message is used together with other generic utility input messages, the END:UT-SM input message may be used to signal the end of the series of messages.

Generic utility WHEN input messages may be removed from processors by various software maintenance/ recovery activities (that is, pumps, initializations, audits, and so forth). During patch recovery operation, a switch command will delete all the when breakpoints and these breakpoints will have to be replanted if needed.

Warning: *The user is responsible for any effects on system operation that result from the use of this input message. Know the effects of the message before using it.*

2. FORMAT

[1]	WHEN:UT:SM=a,ADDR=b,OPC=f[,HIT=h][,FOREVER].[,NOPRINT][,UTILFLAG=i]{! ;}
[2]	WHEN:UT:SM=a,{FUNC=c SYMIDX=d}[,OFF=e,OPC=f].[,HIT=h][,FOREVER][,NOPRINT][,UTILFLAG=i]{! ;}
[3]	WHEN:UT:SM=a,TIME=g[,HIT=h][,FOREVER][,NOPRINT].[,UTILFLAG=i]{! ;}
[4]	WHEN:UT:SM=a,ADRS=j[,AMSK=k][,DATA=l][,DMSK=m].[,OPER=n][,OMSK=o][,HIT=h][,FOREVER][,NOPRINT].[,UTILFLAG=i]{! ;}
[5]	WHEN:UT:SM=a,IABR=p[,HIT=h][,FOREVER].[,NOPRINT][,UTILFLAG=i]{! ;}

```
[6] WHEN:UT:SM=a,DABR=q[,HIT=h][,FOREVER]. . .  
    . . .[,NOPRINT][,UTILFLAG=i]{!|;}
```

3. EXPLANATION OF MESSAGE

- FOREVER = Allow the WHEN to be hit an unlimited number of times. If neither HIT=h nor FOREVER is specified, the hit count 'h' defaults to one.
- NOPRINT = Suppress the WHEN:UT-SM output message.
- a = SM/SM-2000 number.
- b = Absolute address at which to set the breakpoint.
- c = Symbolic name of the function. The name is entered as a string of up to 15 characters, enclosed in double quotation marks. If the symbol name is greater than 15 characters the symbol index number 'd' must be used to enter this input message using symbolics. The function's symbol index number can be determined by using the DUMP:UT-SYMID input message.
- d = Symbol index number of function. The symbol index can be determined for this processor by using the DUMP:UT-SYMID input message.
- e = Offset to be added to the function address. The offsets, in bytes, can range from 0-65535.
- f = Opcode that is expected at address 'b' or within function 'c' or 'd' at offset 'e'. Valid value(s):

If the SM Software Configuration is:	Then:
Not CNFG2KPPC	The opcode must be a two byte opcode.
CNFG2KPPC	The opcode must be a four byte opcode.

- g = Time interval, in milliseconds, at which the timer expires (Upper limit of 4,294,967,295 milliseconds).
- h = Number of times the WHEN may be activated before being automatically inhibited. If neither HIT=h nor FOREVER is specified, the hit count 'h' defaults to one (upper limit of 32767).
- i = User-specified ID of the WHEN input message if it is unique within the system. If the WHEN ID number is not contained within the numeric range of 0 through 127 and there are fewer than 45 total WHEN input messages in the system, or if the WHEN input message is not unique, the system will automatically assign the next available WHEN ID number and no error message will be printed.
- j = Address that is to be compared on every bus cycle with the address actually on the bus. This value is used with the address mask 'k' to provide an address range for the comparison.
- k = Mask value for the address field 'j'. A "1" bit is a don't care indication for that bit. A "0" bit indicates that the address comparison between the bus and the contents of the address field 'j' must match for that bit.
- l = Data that is to be compared on every bus cycle with the data actually on the bus. This value is used with the data mask 'm' to provide a range of data values for the comparison.

- m = Mask value for the data field 'l'. A "1" bit is a don't care indication for that bit. A "0" bit indicates that the data comparison between the bus and the contents of the data field 'l' must match for that bit.
- n = Type of bus operation that is to be compared on every bus cycle with the type of operation actually being performed on the bus. This value is used with the operation mask 'o' to provide a range of operations for the comparison.
- To set the WHEN for a basic read or write operation the OMSK field 'o' can be set to OMSK=h'00x03000, where x is the size of the operation (that is 0 = long word, 1 = byte, 2 = short, and 3 = quad long word). The OPER field would need to be set to OPER=h'00x02000 for a write and OPER=h'00x01000 for a read and 'x' would match the size indicated in the OMSK field. Another example is a mask that looks at the size of the operation, the type of operation (read/write) and ignores MCTSI side switches. Use a mask of 'omsk=h'ffcfcffd'. Refer to the global header smim/SMmp_mthop.h for further information.
- o = Mask value for the operation field 'n'. A "1" bit is a don't care indication for that bit. A "0" bit indicates that the comparison between the operation being performed on the bus and the contents of the operation field 'n' must match for that bit.
- p = The address of the instruction access to be trapped on.
- This value is passed directly to the instruction address breakpoint register. It contains the instruction address to be compared against bits 0-29, breakpoint enable bit (UT ALLOW forces this to active) bit 30, and the translation enable bit 31. Refer to the global header regs/RG750mis.h for further information.
- q = The address and the type of data access to be trapped on. The lowest 3 bits are zero regardless of the value provided.
- This value is passed directly to the data address breakpoint register. It contains the data address to be compared against bits 0-28, the translation enable bit 29, the data write enable bit 30, and the data read enable bit 31. To set the WHEN for a basic read operation the value should be h'xxxxxxxxxy where 'x' is the address to match, and y = h'x101 ('x' being the last of the address, translation is enabled, data write turned off, and data read turned on). For a write operation the address needs to be defined and y = h'x110 can be used. Refer to the global header regs/RG750mis.h for further information.

4. SYSTEM RESPONSE

Refer to APP:UT-IM-REASON appendix in the Appendixes section of the Output Messages manual.

5. REFERENCES

Input Message(s):

ALW:UT-SM
CLR:UT-SM
COPY:UT-SM
DUMP:UT-SM
DUMP:UT-SYMID
ELSE:UT-SM
END:UT-SM
EXC:UT-SM
IF:UT-SM
IF:UT-SM-ENDIF
INH:UT-SM
LOAD:UT-SM

OP:UT-SM

Output Message(s):
WHEN:UT-SM

Input Appendix(es):
APP:UT-IM-REASON

Output Appendix(es):
APP:UT-OM-REASON

Other Manual(s):
235-105-110 System Maintenance Requirements and Tools

ID WRT:AMADATA
RELEASE 5E15 and later
COMMAND GROUP SFTMGT
APPLICATION 5

1. PURPOSE

Requests that billing data be collected from the switching modules (SMs) and the billing data in the administrative module be written to disk prior to generic retrofit.

The output of this input message is delayed until all of the daily SM billing data has been written to disk (10 - 15 seconds for every 10 equipped SMs in the office, depending on the amount of daily billing to be collected). This input message should not be used if the SMs are in isolation. Check the 141 MCC page to make sure no SM is listed as isolated before proceeding. If an SM is isolated, the CLR:ISOL-SM input message can be used to take it out of isolation. Since writes to disk are not possible when a write request is in progress, the disk writer is in initialization, or the disks are full. This input message should not be used under those circumstances. To determine if a write request is in progress, use the OP:AMA-STATUS input message to determine if one of the shared data segment (SDS) subsegments is nearly full and therefore about to be written to disk. The disk writer is in initialization if a boot is in progress or a version of the INIT:AM-FPI input message has just been invoked. To determine if the disks are 100% full, use the OP:AMA-DISK input message.

2. FORMAT

WRT:AMADATA;

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NA = No acknowledgement. Automatic message accounting (AMA) option may be incorrect.
 If the AMA option is correct retry input message.

PF = Printout follows. Followed by a WRT:AMA-DATA output message.

5. REFERENCES

Input Message(s):

CLR:ISOL-SM
INIT:AM-FPI
OP:AMA-DISK
OP:AMA-STATUS

Output Message(s):

CLR:ISOL-SM
INIT:AM-LVL
REPT:AMA-DISK-STO
REPT:AMA-STATUS
WRT:AMA-DATA

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*

235-105-24x Software Release Retrofit
235-190-300 Billing Features and Specifications