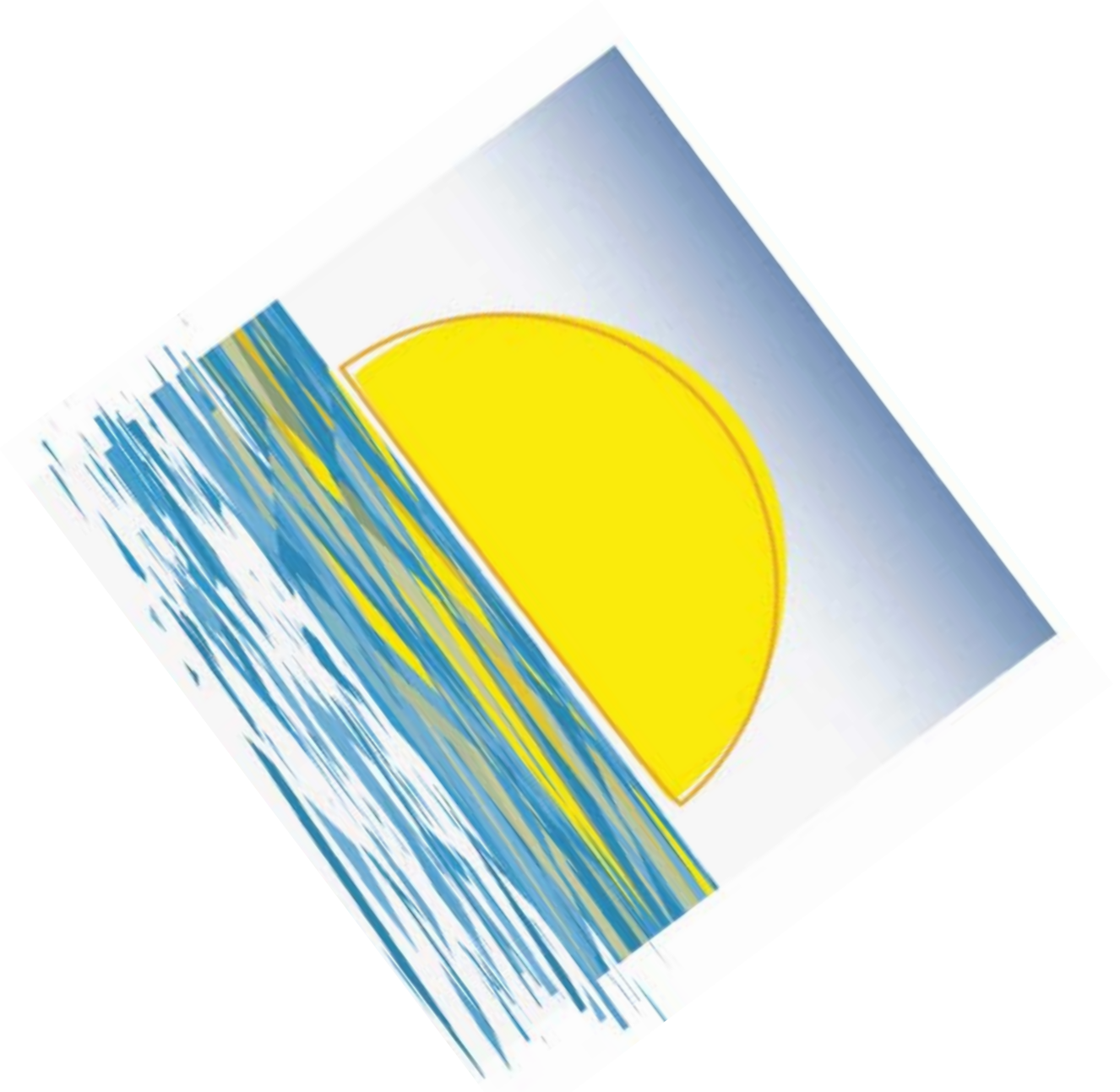
VTAM™

Codes

Version 4 Release 4 for MVS/ESA



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VTAM™

Codes

Version 4 Release 4 for MVS/ESA

GC31-8369-00

Note!

Before using this document, read the general information under “Notices” on page ix.

First Edition (March 1997)

This edition applies to the Advanced Communications Function for Virtual Telecommunications Access Method (ACF/VTAM), an IBM licensed program, VTAM Version 4 Release 4 for MVS/ESA (program number 5695-117) and to OS/390 (5645-001).

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About This Book

This book is intended to help network operators and system programmers in a VTAM* environment understand the meaning of VTAM codes. It contains descriptions of VTAM codes for the MVS/ESA * operating system.

Who Should Use This Book

This book is for network operators, system programmers, or anyone required to interpret a VTAM code. Familiarity with VTAM concepts and terms is assumed.

How to Use This Book

You can use this book as a reference for specific VTAM codes. For background reading to help understand concepts involved in VTAM operations and for examples of message output for a variety of DISPLAY commands, refer to *VTAM Operation*.

How This Book Is Organized

This book contains the following chapters:

- Chapter 1, “Sense Codes,” contains all sense codes set by VTAM and sense fields for RPL-based macros. Because sense codes can be set by many different products, this chapter does not include all sense codes that can display in VTAM messages.
- Chapter 2, “Return Codes for Macroinstructions,” describes return codes that are displayed in VTAM messages.
- Chapter 3, “Data Link Control (DLC) Status Codes” contains the data link control (DLC) status codes issued in message IST1556I.
- Chapter 4, “Status Codes,” includes resource status and session state codes and modifiers.
- Chapter 5, “Wait State Event Codes and IDs” includes the wait state event codes that are displayed in VTAM messages.
- Chapter 6, “Abend Codes,” describes VTAM abend codes.
- Chapter 7, “ATM Network-Generated Cause and Diagnostic Codes” contains the ATM** network-generated cause and diagnostic codes issued in messages IST1556I and IST1558I.

What Is New in This Book

Information has been added to this book to reflect the new functions in VTAM V4R4 for MVS/ESA. Changes have also been made as a result of user comments. All new and changed information throughout the book is indicated by a revision bar (|) in the left margin.

The information in this book was previously published in June 1995 with order number SC31-6546-00.

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Where to Find Information about VTAM

"Bibliography" on page X-3 describes the books in the VTAM V4R4 library, arranged according to related tasks. The bibliography also lists the titles and order numbers of books related to this book or cited by name in this book.

You can read more about VTAM, OS/390, and IBM on these Web pages:

Home Page	Uniform Resource Locator (URL)
VTAM MVS/ESA	http://www.networking.ibm.com/vta/vtaprod.html
OS/390	http://www.s390.ibm.com/os390/
IBM Networking	http://www.networking.ibm.com/
IBM	http://www.ibm.com/

For definitions of the terms and abbreviations used in VTAM books, refer to the *VTAM Glossary*. You can also view or download the latest *IBM Networking Softcopy Glossary* at the following URL:

http://www.networking.ibm.com/nsg/nsggls.htm

Chapter 1. Sense Codes

About This Chapter

This chapter contains the following sections:

- "08XX (Request Reject)" on page 1-2
- "10XX (Request Error)" on page 1-90
- "20XX (State Error)" on page 1-108
- "40XX (RH Usage Error)" on page 1-110
- "80XX (Path Error)" on page 1-112
- "A0XX (RTP Sense Data)" on page 1-122
- "SNA Sense Field Values for RPL-Based Macroinstructions" on page 1-130
- "3270 SNA and Non-SNA Device Sense Fields" on page 1-132.

Notes:

1. This chapter contains all sense codes set by VTAM. To assist you in problem determination, a number of SNA-architected sense codes set by products other than VTAM are also included. However, this chapter does not include all product-specific sense codes that may display in VTAM messages. Refer to *SNA Formats* or *SNA Network Product Formats* for a description of all SNA-architected sense codes.
2. If a sense code is set by NCP, NetView*, CICS*, a device, or any other product, refer to the appropriate product documentation for a complete explanation of the sense code.
3. The SNA sense code definitions used in this chapter are the architected descriptions at the time this book was published. Additional VTAM information or helpful hints may be added to the basic SNA definition.

Sense data in a request/response unit (RU) consists of 1 byte for the category, 1 byte for the modifier, and 2 bytes for either sense-code-specific information or user-defined data. Following is the format of sense data:

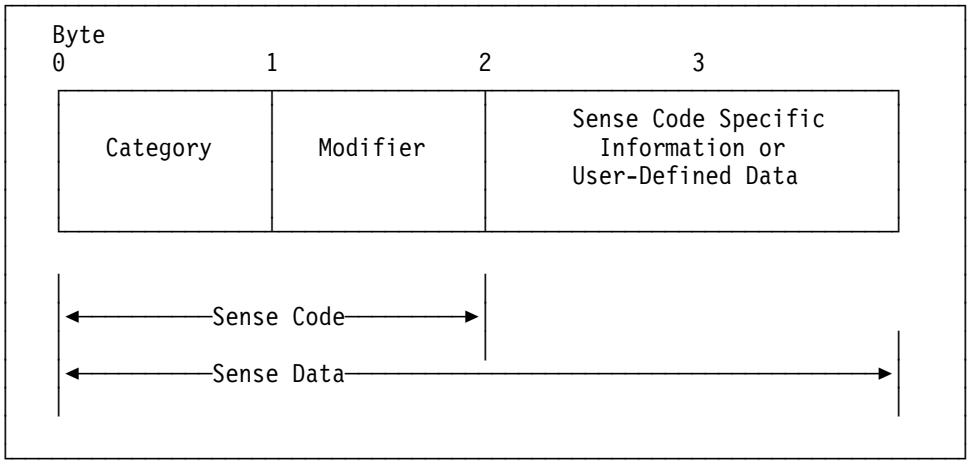

Figure 1-1. Sense Data Format

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08XX (Request Reject)

This category indicates that the request was delivered to the intended component and was understood and supported, but not executed.

Category and modifier (in hexadecimal):

0801 Resource not available: The LU, PU, link station, or link specified in an RU is not available.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

VTAM Hint: Possible causes of this error include, but are not limited to, the following:

- A CINIT request fails because an application rejects a terminal log on. Message IST663I is displayed when this error occurs, and the logon from the terminal fails with USSMSG07. See the section on common subarea network problems, Chapter 1, “Diagnosing VTAM Problems: Where to Begin” in *VTAM Diagnosis* for more information about this problem.
- The logmode is incorrect.
- The major node is not active for the resource. (A frequent reason for this error is that the NCP has not been activated.)
- The line is inactive.
- The line is a CALL=INOUT line over which simultaneous connections are being attempted (dial-in and dial-out). This is a temporary condition and the session might be retried.
- APPC=YES was coded on the APPL definition, and there is an attempt to establish the session using OPNDST.
- With NTRI, this error can occur when DIALNO is incorrect.
- For IMS*, the LU may not be defined.

0001 Independent LU does not receive ACTLU: An ACTLU has been sent by the SSCP to an independent LU (sent by BF).

0002 Reserved resources requested for sessions exceed allowable maximum: The resource reservation request in RNAA exceeds the maximum allowed by system definition. The address was not assigned and no change was made to the current reservation of resources for the LU.

0003 Name aliasing cannot be performed because the name alias function is not available.

0004 A switched connection currently exists for the link being activated, and the SSCP or the subarea PU does not support the protocols necessary to allow takeover of such a link.

0005 A SETCV has been received for a resource that is still represented in the pool of available control blocks.

0006 The line is not associated with a line adapter, or the line is associated with a line adapter that is not valid for the genned usage tier.

0007 The line is associated with a line adapter that is not installed or not attached to the CCU.

0008 The line is associated with a line adapter that is inoperative.

0009 The LU is not available because it is not ready to accept sessions.

000A The PLU is not available because it is being taken down or has issued SETLOGON with the OPTCD=QUIESCE. The PLU is, therefore, not accepting new sessions. The initiation request should not be retried.

VTAM Hint: If the PLU is TSO, then it is likely that the TSO USERMAX limit has been reached. If a MODIFY TSO,USERMAX=0 was issued, then all LOGON attempts for TSO will fail with this sense code.

000B The PLU is not available because it is unable to comply with the PLU-SLU role specification.

000C The SLU is not available because it is unable to comply with the PLU-SLU role specification.

000D The LU is not available because its SSCP is in the process of being taken down, and is therefore not allowing new sessions to be started. The initiation request should not be retried.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

VTAM Hint: A possible cause of this error is that a dynamic application program is trying to open its ACB at the same time its SSCP is in the process of being taken down.

000E The LU is not available because an intermediate gateway SSCP is in the process of being taken down, and is therefore not allowing new sessions to be started.

000F The SLU is not available because it is being taken down, and is therefore not accepting new sessions. The initiation request should not be retried.

0010 A switched subarea connection cannot be established because no switched subarea links are defined.

0011 Switched subarea connection to another network cannot be established because no switched subarea links are defined within a gateway NCP.

0012 An APPN* connection cannot be established because this node has no available integers to represent a new TG.

0013 Switched connection cannot be established because a SHM GROUP was not defined in the switched PU's PATH definitions.

0014 A switched connection cannot be established. Call request verification was requested, but is not supported for this configuration. This condition results from conflicting system definition.

0015 The link connection is unavailable as a result of a hardware failure within the line adapter.

0016 A link resource is not available as a result of maintenance occurring on the supporting hardware.

0017 A link resource is not available because a mismatch exists within the microcode of the supporting hardware.

0018 Activation of the channel link failed because the supporting hardware is undergoing error recovery.

0019 Activation of the channel link failed because the supporting hardware is undergoing concurrent maintenance.

001A Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

001B Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

001C Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

001D Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

001E Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

001F A link connection is associated with a protocol that is inoperative.

0020 A link resource is not available because of a mismatch between current operational parameters and the values specified at system generation.

0026 The PU is not available because the dependent LU server-dependent LU requester connection could not be established.

0027 A switched connection cannot be established because no switched link has been defined.

VTAM Hint: A switched connection cannot be established because a GROUP was not defined in the switched PU's PATH definitions or the defined GROUP does not exist in any active NCP major node.

0028 REQDACTPU was received for a PU that is known but whose SSCP-PU session is currently inactive.

0029 A multipath channel connection cannot be established because the system level is not at least MVS 4.3.

002A An ACTLINK has been received for a resource that is still represented in the pool of available control blocks.

002B Resource is unavailable due to program or operator action. This sense code is returned by the DLU network node server when it performs resource verification reduction for a DLU in its domain which has registered itself as unavailable for an unexpired time.

002C The required extended coupling facility is not available.

4001 Line cannot be force deactivated while panel line test is active.

4002 A forced deactivate was attempted when wrap test was active.

0802 Intervention required: Forms or cards are required at an output device, or a device is temporarily in local mode, or other conditions require intervention.

0803 Missing password: The required password was not supplied.

0804 Invalid password: Password was not valid.

0805 Session limit exceeded: The requested session cannot be activated, as one of the NAUs is at its session limit, for example, the LU-LU session limit or the (LU, mode) session limit. This sense code applies to ACTCDRM, INIT, BIND, and CINIT requests.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

VTAM Hint: Possible causes of this error include:

- A dynamic reconfiguration (DR) mismatch exists between VTAM and NCP. Check the PUDR and LUDR pools.
- The session limit was exceeded because:
  - The given mode name was found and the limit is currently set to zero, preventing activation of additional sessions.
  - The given mode name cannot be found. The session limit is assumed to be zero.

0001 If accepted, the BIND request would prevent either the receiving LU or the sending LU from activating the number of contention-winner sessions to the partner LU that were agreed upon during a change-number-of-sessions procedure.

0002 If accepted, the BIND request would cause the XRF-backup session limit to be exceeded.

0003 If accepted, the BIND request would cause the XRF-active session limit to be exceeded.

Note: The session limit for XRF-active sessions is one. An XRF-active BIND is valid only if there are no XRF-active or XRF-backup sessions with the receiving SLU.

0004 For an independent LU, the BIND request, if accepted, would cause the system-defined maximum number of sessions (MAXSESS) allowed for any LU to be exceeded for this LU.

0005 The intermediate session router is unable to create a session connector control block. The pool of session connectors is saturated with active sessions and with pending active sessions for which the queue bit was set in the BIND; the BIND should not be retried.

0006 The intermediate session router is unable to create a session connector control block. The pool of session connectors is saturated with active sessions and with pending active sessions for which the queue bit was not set in the BIND; the BIND should be retried.

0008 For a dependent LU, if accepted, the BIND request would cause the session limit to be exceeded.

0009 If accepted, the request would cause the PLU session limit to be exceeded.

000A If accepted, the request would cause the SLU session limit to be exceeded.

000B The request was rejected because a session already exists between the same LU pair, and at least one of the LUs does not support parallel sessions.

000C Duplicate controller session attempted.

0806 Resource unknown: For example, the request contained a name or address not identifying a PU, LU, SSCP, link, or link station known to the receiver or the sender.

Note: In an interconnected network environment, this sense code may be set by an SSCP in whose subnetwork and domain the LU was expected to reside; it is not set by an SSCP that is only an intermediary on the session-setup path. A gateway SSCP examines the resource identifier control vector in a session setup request (for example, CDINIT), to determine whether the LU is in the SSCP's subnetwork and domain.

Bytes 2 and 3 following the sense code contain sense code-specific information.

0000 No specific code applies.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

VTAM Hint: A possible cause of this error is that *uservarname* has been specified on the ID operand of the DISPLAY NCPSTOR command.

0001 The resources identified in an SNA address list (X'04') MS common subvector are unknown to the PU receiving the request.

Note: When this sense data flows in a negative response to a network management vector transport (NMVT), the referenced X'04' subvector is the one that was present in the request NMVT to which the negative response corresponds. When this sense data flows in a sense data (X'7D') MS common subvector, the referenced X'04' subvector is present with the X'7D' subvector in the same major vector.

0002 Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

0004 The indicated resources in the accompanying name list (X'06') subvector are unknown to the control point to which the request containing the subvector was routed.

Note: Names in the hierarchy below the level of the first unknown resource are not examined by the control point.

0005 The physical unit is currently in the physical unit dynamic reconfiguration pool.

0006 For a dynamic reconfiguration DELETE, MOVE, or REPLACE operation, the resource to be dynamically reconfigured could not be found.

0007 The LU address in bytes 8–9 of RNAA type X'04' is already in the free pool.

0008 For a dynamic reconfiguration DELETE, MOVE, or REPLACE operation, the NAU name in RNAA does not correspond to the resource identified by the element address in the RNAA.

0009 The SSCP(OLU) cannot identify the SSCP(DLU), and the default SSCP rerouting is not enabled.

000A The configuration identifier specified in a management services command is not recognized by the DLC manager at the receiving node.

0011 An unknown OLU name was specified in the request.

0012 An unknown DLU name was specified in the request.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

VTAM Hint: Possible causes of this error include, but are not limited to, the following:

- No CDRMs are active.
- No CDRSC exists for the DLU, and one cannot be created dynamically because CDRDYN=NO. Verify that a host CDRM definition exists and is activated if this node was started with a subarea number, and ensure that CDRDYN=YES is specified on the CDRM definition. See “Cross-Domain Resource Manager (CDRM) Major Node” in the *VTAM Resource Definition Reference* for information on the CDRDYN operand.

0013 An unknown SLU name was specified in the request.

0014 An unknown PLU name was specified in the request.

0015 An unknown OLU address was specified in the request.

0016 An unknown DLU address was specified in the request.

0017 An unknown SLU address was specified in the request.

0018 An unknown PLU address was specified in the request.

0021 The session-initiation request specified that the receiving SSCP is the SSCP having the DLU in its domain, but the DLU is unknown to the receiving SSCP. This error can occur if a CDRM is coded incorrectly on the CDRSC definition statement.

0022 The originator of the request or response is unknown to the receiver.

0023 The destination of the request or response is unknown to the sender.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0024 An unknown LU1 name was specified in the request.

0025 An unknown LU2 name was specified in the request.

0026 The SSCP does not have a session with the boundary function PU of an independent LU.

0027 The PU associated with a switched SLU is unknown. Session setup processing for the switched SLU cannot proceed.

0028 NAU1 network address is unknown.

0029 NAU2 network address is unknown.

002A The NAU name in the CONTACT or ACTLU does not correspond to the resource at the target address.

002B The TG being activated is unknown.

002C The identification supplied by the adjacent node in its XID3 differed from the identification that the receiving node was configured to expect.

002D Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

002E Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

002F The destination resource was not found on this node during a session activation attempt.

0030 The adjacent node was not identified during CP-CP session activation or deactivation.

0031 Upon receiving a route request from another component in the node, TRS has been unable to locate in its topology database the destination network node or any network node specified in the TG vectors for the destination end node; the request is rejected.

0032 A SETCV defining an intra-FRSE PCV segment subport set was received containing an element address unknown to the receiver.

0033 A network resource needed for session establishment has become unavailable resulting in the termination of the pending session establishment procedure.

0034 REQDACTPU received for an unknown PU.

VTAM Hint: This sense code is set by VTAM when processing the REQDACTPU request received from the dependent LU requester (DLUR) to deactivate the PU, but the PU is not known to VTAM. VTAM will send a negative REQDACTPU response with the sense code to the DLUR.

Verify that the PU name is specified correctly in the PU definition for the switched major node and in the DLUR definitions. If you have a system where PUs are being dynamically created, verify that the PU name is specified correctly in either the NIDDEF or CPNDEF definitions and in the DLUR definitions.

0035 The local node has received an unknown adjacent CP name in a request to activate or deactivate a CP-CP session.

0036 No SSCP-SSCP session exists between the VRTG end points.

VTAM Information: VTAM sets this sense code when a CDINIT(5) cannot be sent because there is no SSCP session between the VRTG endpoints.

3426 Product-specific sense code.

VTAM Hint: This sense code can be displayed in a VTAM message but is set by another product. It may be issued by CICS. If issued by CICS, bytes 2 and 3 map to a CICS message number. Refer to *CICS Messages and Codes* for additional information.

0807 Resource not available—LUSTAT forthcoming: A subsidiary device will be unavailable for an indeterminate period of time. LUSTAT will be sent when the device becomes available.

0808 Invalid contents ID: The contents ID contained on the ACTCDRM request was found to be invalid.

0809 Mode inconsistency: The requested function cannot be performed in the present state of the receiver.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

VTAM Hint: Possible causes of this error include, but are not limited to, the following:

- If resources are not activating correctly when a new NCP is activated, either rename the new NCP or use another method to make sure that the old resource resolution table (RRT) is replaced with the new RRT.
- If you are trying to establish a session to a 3274, this error can occur when DATMODE=HALF is not coded on the PU definition statement.
- A VARY INACT,FORCE command on a switched PU is turned into a VARY INACT,REACT.
- If a USERVAR is defined, the USERVAR name is required for session initiation instead of the real name.
- There is not enough storage to enable VTAM to add a dynamic application program to the symbol resolution table (SRT).
- Another resource with the same name as a dynamic application program that requests to open its ACB has already been defined.

0001 The logical unit vector (LUV) table is too small.

0002 Either the SSCP is not the owner, or it was not added by dynamic reconfiguration.

0003 Previous RNAA received for the same address. Check the LOCADDR in the LU definitions.

0004 Local address X'0000' specified for a logical unit added to a cluster controller module (PU type 2).

0005 Attempted to switch the line mode when the link was already active.

0006 The logical unit was specified at system generation as not available for dynamic reconfiguration.

0007 Attempted to switch the line mode while an activate link command is in progress.

0008 Attempted to switch the line mode while a deactivate link is in progress.

0009 Attempted to switch the line mode while a wrap is in progress on this line.

000A Either the specified physical unit was not assigned to the specified link, or the specified logical unit was not assigned to the specified physical unit.

000B The logical unit or the physical unit was in active session.

000D A logical unit was still assigned to the physical unit.

000E The resource to be dynamically reconfigured is a system generated resource and is defined as not DR-deletable.

000F An RNAA received from an SSCP is rejected because it specifies a resource (adjacent link station or LU) that currently has an address assigned as a result of another SSCP's RNAA; or an ACTLU, FNA, or SETCV received from an SSCP is rejected because it specifies a resource address that is not assigned to an existing resource or is assigned as a result of another SSCP's RNAA.

0010–0013 Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

0010 Attempted to switch the line mode while a line trace or scanner interface trace (SIT) is in process.

0014 ANS mismatch discovered.

0015 The type modifier (3270 indicator) is already set and does not match the type modifier in this command.

0016 The PU type on SETCV does not match the actual PU type.

0017 The error-recovery modifier is already set and does not match the error-recovery modifier in this command.

0018 The pass limit is already set and does not match the pass limit field in this command.

0019 A SETCV was received containing a value for the SDLC BTU send limit that conflicts with the previous value received.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It may be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

001A The maximum segment size is already set and does not match the maximum segment size in this command.

001B The command specifies a pool indicator that is not X'00' or X'01'.

001C The RNAA request contains a network ID that is not known to the gateway PU.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

001D An address-pair session key in a network-qualified address pair control vector (X'15') is not known to the gateway PU.

001E A gateway PU received an RNAA request for a cross-network session and all possible address transforms for the named resource are allocated.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0020 The gateway node receiving an RNAA request cannot support another session between the named resource pair.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0024 A PU received an ACTPU request with the SSCP-PU session capabilities control vector (X'0B') indicating that the sending SSCP does not support ENA, but the PU does not know the SSCP's maximum subarea address value.

0025 Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

0026 MAXOUT of zero received.

0027 A request for a function was received by a component, but the function was not enabled or activated.

0028 Cleanup termination of an LU-LU session has been converted to a forced termination by the LU. The SSCP must wait for session-ended signals before deleting its session awareness records of the session.

0029 Second-level application state change has occurred. An application program served by an MS application program has changed the state of a node that may result in the rejection or failure of a current request or of a future request that would have previously been honored.

002A The route setup procedure identified in a session services request was not in the expected state.

0030 An FNA was received for an LU that has an active SSCP-LU session.

0031 Bind failure: Mismatch of date, time, or NCP load module name. The load module currently processing in the CCU does not match the NPM Resource Resolution Table (RRT) in use by NPM. The NCP's generation date, time, and load module name in NPM's RRT must match that in NCP's exactly. Verification is through the user data in the bind image.

0032 A BFSESSINFO was received when the LU was not pending BFSESSINFO; the reported sessions will be terminated, and the associated network addresses will be freed. This sense data is also included in the BFCLEANUP when the sessions are terminated.

0033 A BIND with the same LFSID as an existing pending-reset session has been received by a boundary function from a peripheral PLU.

0034 A termination request has been received for a resource that has been taken over by an SSCP. The termination type is not strong enough to apply to the resources. The termination type needs to be Forced or Cleanup.

0035 A cross-domain resource, which was expected to be active, is inactive.

0036 The short hold mode logical connection selected does not exist.

0037 A non-short hold mode connection was attempted on a port (group) that is dedicated to short hold mode operation.

0038 There is an inconsistency of mode between the XID sender and receiver. The XID receiver is operating in short hold mode. Examples include inconsistent settings of the short hold indicator (SHI), the short hold status indicator (SHSI), and the XID exchange state indicator.

0039 CP Transaction Error: CP Capabilities (X'12C1') GDS variable request sent indicating conversation complete or without change direction (i.e., CEB or ¬CD) or CP Capabilities reply sent indicating conversation not yet complete (i.e., ¬CEB).

VTAM Hint: This sense code is set by VTAM in the following situations:

- During contention winner CP-CP session activation.
  - The execution of an APPCCMD CONTROL=ALLOC,QUALIFY=CONWIN instruction to allocate a conwinner CP-CP session failed due to an unrecoverable error, and APPC did not communicate to the issuing TP a non-zero sense code at the time the ALLOC instruction was posted back. The RCPRI and RCSEC return codes displayed in message IST1002I in the IST1110I message group provide more information about the cause of the error.
  - The execution of the APPCCMD CONTROL=RECEIVE,QUALIFY=SPEC instruction to receive the adjacent CP's capabilities completed successfully, but the TP issuing that instruction was not notified that the partner LU has unconditionally deallocated the conversation. You may want to make the system programmer aware of this situation.
- During contention loser CP-CP session activation.
  - The execution of the APPCCMD CONTROL=RECEIVE,QUALIFY=SPEC instruction to receive the adjacent CP's capabilities completed successfully, but the partner LU did not enter RECEIVE state as expected. You may want to make the system programmer aware of this situation.
- During contention winner or contention loser CP-CP session activation.
  - The execution of an APPCCMD CONTROL=SEND,QUALIFY=DATA instruction to send our CP capabilities to the adjacent CP failed due to an unrecoverable error, and APPC did not communicate to the issuing TP a non-zero sense code at the time the SEND was posted back. The RCPRI and RCSEC return codes displayed in message IST1002I in the IST1110I message group provide more information about the cause of the error.
  - The execution of the APPCCMD CONTROL=RECEIVE,QUALIFY=SPEC instruction to receive the adjacent CP's capabilities failed due to an unrecoverable error, and APPC did not communicate to the issuing TP a non-zero sense code at the time the RECEIVE was posted back. The RCPRI and RCSEC return codes displayed in message IST1002I in the IST1110I message group provide more information about the cause of the error.
  - The execution of the APPCCMD CONTROL=RECEIVE,QUALIFY=SPEC instruction to receive the adjacent CP's capabilities completed successfully, but something other than data was received from the partner CP. You may want to make the system programmer aware of this situation.

003A A null XID was received when an XID3 with its Exchange State indicators set to “prenegotiation,” “negotiation proceeding,”or “Exchange State indicators not supported” was expected.

003B A null XID was received when a nonactivation XID3 was expected.

003C An XID3 with the Exchange State indicators set to “prenegotiation”was received when either of the values “negotiation proceeding” or “Exchange State indicators not supported” was expected.

003D A nonactivation XID3 was received when a null XID or link-activation XID3 was expected.

003E A link activation XID3 was received when a null XID or nonactivation XID3 was expected.

003F The node with a secondary link station attempted to initiate a nonactivation exchange when secondary-initiated nonactivation exchanges are not supported on the connection.

0040 A mode-setting command was received and was either not expected or not valid for the receiving node; for example, SNRME was received when SNRM was expected.

0041 An XID3 with the Exchange State indicators specifying a negotiation-proceeding exchange was received when an XID3 indicating a prenegotiation exchange was expected. If prenegotiation XID3s are used in a link activation XID exchange, each node must send and receive one.

0042 On an ABM TG on which secondary-initiated nonactivation XID exchanges are supported, the adjacent link station has initiated a nonactivation exchange by sending a nonactivation XID3 in which the ABM Nonactivation XID Exchange Initiator indicator specifies that the sending node is not initiating a nonactivation exchange. On such TGs, the initiator of a nonactivation exchange always explicitly indicates that it is initiating a nonactivation exchange.

0046 An XID3 indicating that the sender supports the Exchange State indicators was received when the sender had previously indicated that it does not support this field in XID3.

0047 An XID has been received after receipt of a mode-setting command but before the completion of the mode-setting sequence, for example, before RR, RNR, or an I-frame with the poll bit set has been sent by the node with the primary link station after it has received UA in response to its mode-setting command.

0048 A node with an NRM primary link station has received an XID3 when it has no outstanding commands. NRM secondary link stations send XIDs only in response to XID commands.

0049 The XID3 received from the adjacent node had an XID Negotiation Error (X'22') control vector appended. The XID exchange will therefore terminate unsuccessfully.

004A The request cannot be accepted because dynamic reconfiguration is in process for the target resource.

004B Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

004C Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by

another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

004D Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

004E A node with a secondary NRM link station has attempted to initiate a nonactivation XID exchange with an XID3. Nodes with secondary NRM link stations may solicit a nonactivation XID3 exchange only by means of sending a null XID at a response opportunity.

0050 An UNBIND request was received on behalf of a resource for which a previous UNBIND is in progress. The second UNBIND does not indicate an override of the first, and is therefore a duplicate request.

0051 Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

0052 Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

0053 An activation request was received for a CDRM whose subarea address is already known by another CDRM name.

0054 An adjacent node is not the node type that the receiving node was configured to expect.

0055 The adjacent node is attempting to establish a connection through a connection network but the virtual routing node CP named in the TG Descriptor (X'46') control vector appended on the received negotiation-proceeding XID3 is not valid.

0056 Locate Phase Error: A Locate GDS variable was received that contained an incorrect request-reply-chain status field, for example, c reply was received while the receiver was in chain state.

0057 The received NOTIFY type is not supported in the current state of the receiver.

0058 An intra-FRSE PVC segment subport received an RNAA (Assignment Type X'5') with a DLC Header Link Station Address field containing a value outside the valid range. The RNAA is rejected.

0059 An intra-FRSE PVC segment subport received an RNAA with a control vector X'43' specifying discontinue link-level contact if an auto network shutdown procedure is initiated. The RNAA is rejected.

005A RNAA was received to add an intra-FRSE PVC segment subport to a hierarchical physical resource that is not active.

0060 An intra-FRSE PVC segment subport received an RNAA with a control vector X'43' specifying that modem test support is permitted. The RNAA is rejected.

0061 An intra-FRSE PVC segment subport received an RNAA with a control vector X'43' Frame send control value field containing a value outside the valid range. The RNAA is rejected.

0062 An intra-FRSE PVC segment subport received an RNAA with a control vector X'43' Node Type Identifier field specifying a node type other than T1. The RNAA is rejected.

0063 An intra-FRSE PVC segment subport received an RNAA with a control vector X'43' specifying that null XID polling for the secondary station should be used. The RNAA is rejected.

0064 A SETCV defining an intra-FRSE PVC segment subport set was received that contained an element address in the DR pool.

0065 A SETCV defining an intra-FRSE PVC segment subport set was received from an SSCP that did not originally add all the subarea element addresses listed in the SETCV to the DR pool.

0066 An ACTTRACE was received for a link connection trace while a trace for a logical link using that link connection was active, or ACTTRACE was received for a logical link trace while a trace for its underlying physical link connection was active.

0067 An intra-FRSE PVC segment subport received an RNAA5 containing a DLC Header Link Station Address that is being used by an existing frame relay terminating equipment subport.

0068 An XID was received with a Networking Capabilities indicator (specifying whether the sender is an APPN network node) that is inconsistent with the receiver's definition for the connection. The connection is rejected.

0069 An XID was received with CP Services and CP-CP Session Support indicators that are inconsistent with the receiver's definition for the connection. The connection is rejected.

006A A node type mismatch exists between the two SSCPs setting up a VRTG.

VTAM Hint: VTAM sets this sense code when a VRTG connection is rejected because the VRTG partner host is configured as an unexpected node type.

006B The IP address specified in an RNAA(Type=X'05') for a new Internet Protocol (IP) PU is a duplicate of an existing IP address.

080A Permission rejected: The receiver has denied an implicit or explicit request of the sender; when sent in response to BIND, it implies either that the secondary LU will not notify the SSCP when a BIND can be accepted, or that the SSCP does not recognize the NOTIFY vector key X'0C'. (See the X'0845' sense code for a contrasting response.)

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 An SSCP has denied permission to establish a session through its resources; the receiving SSCP should not attempt to reroute the request to another SSCP.

0002 An SSCP has denied permission to establish a session through its resources; the receiving SSCP should attempt to reroute the request to another SSCP.

0005 The alias application has denied permission to establish a session through this SSCP. The receiving SSCP should not attempt to reroute the request to another SSCP.

0006 The alias application has denied permission to establish a session through this SSCP. The receiving SSCP should attempt to reroute the request to another SSCP.

0007 Permission rejected for an activation request received for a resource that has a network ID different from that of the requesting SSCP, and the requesting SSCP indicated previously that it does not support this configuration.

0008 The request specified in the Request Change Control MS major vector was rejected because it did not originate from a valid focal point.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product.

0009 The request specified in the Request Change Control MS major vector was rejected because the ability to support it has been disabled at the receiver.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product.

000A The request was rejected because it would prohibit compliance with the status-reporting requirements specified in the Reporting Level MS Common subvector.

000B The request was rejected because the second-level application, though recognized, operates under the control of a program other than that which has received and is to forward the request to that second-level application program.

000C The request was rejected because the timer/clock at the receiver is protected and cannot be set by the request sender.

000D An SSCP or CP has denied a Locate search request. The receiving SSCP or CP should attempt to reroute the request.

000E The request was rejected because of constraints or policies specific to the receiving implementation or installation. The request should not be retried.

000F The request was rejected because of constraints or policies specific to the receiving DLUs. The request should not be retried.

080B Bracket race error: Loss of contention within the bracket protocol. This error can arise when bracket initiation or termination by both NAUs is allowed.

080C Procedure not supported: A procedure (Test, Trace, IPL, REQMS type, MS major vector key) specified in an RU is not supported by the receiver.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0005 The MS major vector key is not supported by the receiver.

0006 The MS major vector is identified as one that contains a command, but the receiver does not recognize or support the command subvector. (See the X'086C' sense code for the case in which the command subvector is identified, but an additional required subvector is missing.)

0007 Function not supported.

0009 A request for session information retrieval for an independent LU was received in an REQMS; such requests are permitted only in a network management vector transport (NMVT).

000A A request was received containing a name list or an address list MS subvector with multiple entries, but the receiver supports only a single entry in such a subvector.

000D An MS Request Change Control Major Vector was received requesting post-test, but the receiver does not support that function.

000E An MS Request Change Control Major Vector was received prohibiting automatic removal of a change, but the receiver does not support that function.

000F An activate MS Major Vector was received from a change management focal point specifying use of changes installed in production only, but the receiver supports such a request only when it is received locally.

0012 Application GDS variable in an MDS_MU not supported.

0013 MDS message type not supported. Receiving application does not support the MDS message type in this MDS_MU.

0014 An MS major vector was received requesting execution window timing, but the receiver does not support that function.

0015 An MS Activate major vector was received specifying change management activation use, but the receiver does not support that function.

0016 An MS Request Change Control major vector was received requesting Activate with Force Delay, but the receiver does not support that function.

0017 The changes referred to in a Request Change Control MS major vector are already installed on trial and the receiver does not support the transfer from trial to production with REMOVABILITY=YES.

0018 An MS Request Change Control major vector was received requesting pre-test, but the receiver does not support that function.

0019 A link trace requested in ACTTRACE is not supported for frame-relay logical links.

0161 Focal point authorization request (X'61') subvector missing the function subfield. (X'10', X'20', or X'30') is required.

0162 Focal point authorization reply (X'62') subvector missing the function subfield. (X'10', X'20', or X'30') is required.

0163 Focal point authorization request (X'63') subvector missing the function subfield. (X'10' or X'30') is required.

0164 Focal point authorization reply (X'64') subvector missing the function subfield. (X'10' or X'20') is required.

4001 Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

4003 Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

080D NAU contention: A request to activate a session was received while the receiving half-session was awaiting a response to a previously sent activation request for the same session; for example, the SSCP receives an ACTCDRM from the other SSCP before it receives the

response for an ACTCDRM that it sent to the other SSCP, and the SSCP ID in the received ACTCDRM was less than or equal to the SSCP ID in the ACTCDRM previously sent.

080E NAU not authorized: The requesting NAU does not have access to the requested resource.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

VTAM Hint: A possible cause of this error is that the PLU is not defined or cannot be found.

0001 The PU, according to its system definition, does not accept an ACTPU from any SSCP having the network ID of the sending SSCP.

0002 A gateway T4 node received an invalid request from an SSCP that is not in the native network of the gateway node.

0003 The link station received a CONTACT from an unauthorized SSCP.

0004 A BFCLEANUP is received from an unauthorized SSCP.

0005 A RNAA is received from an unauthorized SSCP.

0006 A network node (NN) received a REGISTER from an unauthorized end node.

0007 A network node (NN) received a REGISTER from another network node (NN); receiver rejects the REGISTER with this code.

0008 A network node (NN) received a DELETE from another network node (NN); receiver rejects the DELETE with this code.

0009 A network node (NN) received a DELETE from an unauthorized end node.

000B A Locate/CD-Initiate was received from a node that is not defined as a client end node. This can be detected by either DS or SS.

000C A gateway T4 node received a dynamic dump request from an SSCP that is not in the native network of the gateway T4 node.

080F End user not authorized: The requesting end user does not have access to the requested resource.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

0002 Session-level LU-LU verification protocol Mismatch: An LU that supports only the enhanced LU-LU verification protocol received a BIND or RSP(BIND) that specified the basic LU-LU verification protocol.

0003 An attempt was made to enter a remote subnetwork to which the origin subnetwork was not authorized.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product.

0004 An attempt was made to install or remove a database table before issuing a logon to the database.

6051 Access Security Information Invalid: The request specifies an Access Security Information field that is unacceptable to the receiver; for security reasons, no further detail on the error is provided. This sense data is sent in FMH-7 or UNBIND.

VTAM Hint: A security protocol error has been detected in an RU received from the remote LU or transaction program. For persistent verification, VERIFY and PV must be coded on the conversation security level (CONVSEC) in the RACF* profile.

6052 Authentication failed.

6053 Not signed on.

6054 Lifetime expired.

6055 Authentication Required.

6058 Access Failure: The request specifies an Access Security Information field that is unacceptable due to a processing failure. This sense code is only allowed on sessions that support extended security sense codes.

8000 Access Failure: GSS-API unexpected status value — A GSS-API request returned an unrecognized status value.

8001 Access Failure: GSS-API GSS_BAD_MECH — unsupported mechanism requested

8002 Access Failure: FSS-API GSS_BAD_NAMETYPE — name of unsupported type provided

8003 Access Failure: GSS_API GSS_BAD_BINDINGS — channel binding mismatch

8004 Access Failure: GSS_API GSS_BAD_NAME — invalid name provided

8005 Access Failure: GSS_API GSS_BAD_STATUS — invalid input status selector

8006 Access Failure: GSS_API GSS_BAD_SIG — token had invalid signature

8007 Access Failure: GSS_API GSS_DEFECTIVE_CREDENTIAL — defective credential detected

8008 Access Failure: GSS_API GSS_DEFECTIVE_TOKEN — defective token detected

8009 Access Failure: GSS_API GSS_FAILURE — failure, unspecified at GSS_API level

800A Access Failure: GSS_API GSS_NO_CONTEXT — no valid security context specified

800B Access Failure: GSS_API GSS_NO_CRED — no valid credentials provided

8101 Retryable Access Failure: GSS_API GSS_CONTEXT_EXPIRED — specified security context expired

8102 Retryable Access Failure: GSS_API GSS_CREDENTIALS_EXPIRED — expired credentials detected

8103 Retryable Access Failure: Deferred Authentication processing was requested, but communications failures occurred while attempting to communicate with the Distributed Authentication Service TP.

8104 Retryable Access Failure: Deferred Authentication processing was requested, but the origin could not locate the conversation's security context.

FF00 Access Failure: The request specifies a password that is expired. This sense code is only allowed on sessions that support extended security sense codes.

FF01 Access Failure: The request specifies a password that is invalid. This sense code is only allowed on sessions that support extended security sense codes.

FF02 Access Failure: The request specifies a userid that is revoked. This sense code is only allowed on sessions that support extended security sense codes.

FF03 Access Failure: The request specifies a userid that is invalid. This sense code is only allowed on sessions that support extended security sense codes.

FF04 Access Failure: The request is missing a userid. This sense code is only allowed on sessions that support extended security sense codes.

FF05 Access Failure: The request is missing a password. This sense code is only allowed on sessions that support extended security sense codes.

FF06 Access Failure: The request specifies a group that is invalid. This sense code is only allowed on sessions that support extended security sense codes.

FF07 Access Failure: The request specifies a userid that is revoked in the specified group. This sense code is only allowed on sessions that support extended security sense codes.

FF08 Access Failure: The request specifies a userid that is not defined in the specified group. This sense code is only allowed on sessions that support extended security sense codes.

FF09 Access Failure: The request specifies a userid that is not authorized to access the remote LU. This sense code is only allowed on sessions that support extended security sense codes.

FF0A Access Failure: The request specifies a userid that is not authorized to access the remote LU from the local LU. This sense code is only allowed on sessions that support extended security sense codes.

FF0B Access Failure: The request specifies a userid that is not authorized to access the transaction program at the remote LU. This sense code is only allowed on sessions that support extended security sense codes.

FF0C Access Failure: The request failed due to installation exit processing at the remote LU. This sense code is only allowed on sessions that support extended security sense codes.

FF0D Access Failure: The request failed due to processing failure between the local LU and remote LU. This is a correctable error, so subsequent requests might succeed. This sense code is only allowed on sessions that support extended security sense codes.

0810 Missing requester ID: The required requester ID was missing.

0811 Break: Asks the receiver of this sense code to terminate the present chain with CANCEL or with an FMD request carrying EC. The half-session sending the Break sense code enters chain-purge state when Break is sent; the half-session receiving the Break sense code discards the terminated chain without ever retransmitting it.

0812 Insufficient resources: Receiver cannot act on the request because of a temporary lack of resources.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

VTAM Hint: A possible cause of this error is that VTAM cannot find a predefined application program definition or model application program definition when processing an OPEN macro for an application program requesting to open its ACB.

0001 More PUs or LUs requested by RNAA than are present in the pool.

VTAM Hint: If you are activating a PU connected to an NCP, check the NCP LUDRPOOL definition statement.

See the *NCP Resource Definition Reference* for more information.

0002 More PUs or LUs are requested by RNAA than the attachment resource will hold.

0003 Resources are not currently available to support an XRF session.

0004 The RNAA request indicates that the requested address must be pre-ENA compatible, but no pre-ENA compatible address is available. See “MAXSUBA” in the *VTAM Resource Definition Reference* for more information.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0005 The requested reserved resources for sessions are not available: In RNAA, a reservation of session resources exceeded those available; no address was assigned and no change was made to the LU’s current reservation.

0006 Insufficient resources are available for a boundary LU-LU session.

VTAM Hint:

For NCP-attached devices, when there is a BIND, INITOTHER or RNAA failure, check the following NCP parameters:

- NUMILU, NUMTYPE1, and NUMTYPE2 in the LUDRPOOL statement
- AUXADDR on the BUILD statement
- The LUPOOL statement, if applicable

See the *NCP Resource Definition Reference* for more information.

Check the system log or the network log for additional messages that may pertain to the problem. For example, if message IST651I is issued for STORAGE UNAVAILABLE BS BUFFER POOL, it might be necessary to increase the size of the buffer pool.

0007 Insufficient resources are available for LU address allocation.

0008 No buffer space: The session was deactivated because of a buffer shortage when extending a nonextended positive RSP(BIND). Insufficient resources exist to extend a BIND response.

0009 No unreserved session connectors are available to add an LU.

000A A network node does not have adequate resources to honor a Register request (the available directory capacity has already been reached).

000B A BFSESSINFO was received for an LU that is unknown to VTAM. VTAM attempted to create a representation for the LU, but was unable to do so because of insufficient resources.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

000C Not enough buffer space exists to support a deadlock-free transmission group. The receiver does not have enough buffers to allocate a BIND receive buffer.

000D Insufficient buffers exist to activate a session.

000E The network names table is full.

VTAM Hint: The NCP network names table is full. Increase the NNT in the NAMTAB on the BUILD definition statement. This sense code is set by the NCP.

See the *NCP Resource Definition Reference* for more information.

000F Insufficient buffer space exists to build a BFINIT.

0010 The CP does not have adequate resources to process a GDS variable request; it will deactivate its CP-CP sessions with the partner CP.

0011 There is insufficient storage available to the SNA component to satisfy the request at this time.

VTAM Hint: A possible cause of this error is that VTAM is trying to build a dynamic application program from a model application program definition and there is not enough storage to allow VTAM to build the dynamic application program.

0012 No network address available to assign to a parallel session.

0014 This session has failed because of storage depletion at an intermediate node.

0015 Insufficient resources are available to initiate a short hold mode logical connection.

0016 Unknown network identifier.

0017 Insufficient buffer space exists to process a nonimmediate UNBIND.

0018 All LFSIDs this node is allowed to assign on the TG are in use at this time; the request is rejected.

0019 Insufficient storage is available to conduct an XID exchange.

001A Insufficient storage is available to activate a TG.

001B Insufficient resources to activate a token-ring connection.

VTAM Hint: A possible correction for this error is to code the NCP parameter NEWDEFN, and the output deck must be supplied to the VTAM configuration found in SYS1.VTAMLIST.

See “Data Sets Containing Information for VTAM” in the *VTAM Installation and Migration Guide* for information about key data sets.

001C Insufficient storage exists to respond precisely to an error condition.

001D The PU type-4 node does not have sufficient disk space to perform the requested dump.

001E A session has failed because depletion of pooled buffer storage has exceeded a critical threshold resulting from that session's monopolizing usage.

0021 A received XID3 cannot be fully processed because the receiver has insufficient storage to keep the network-qualified name of the sender's control point.

0022 No specific code applies.

VTAM Hint: This sense code can be displayed in a VTAM message but is set by NCP. See *NCP, SSP, and EP Messages and Codes* for a description of sense codes set by NCP.

0023 No specific code applies.

VTAM Hint: This sense code can be displayed in a VTAM message but is set by NCP. See *NCP, SSP, and EP Messages and Codes* for a description of sense codes set by NCP.

0024 No specific code applies.

VTAM Hint: This sense code can be displayed in a VTAM message but is set by NCP. See *NCP, SSP, and EP Messages and Codes* for a description of sense codes set by NCP.

0025 Insufficient storage to keep the network-qualified name of the connection network virtual node control point.

0813 Bracket bid reject—no RTR forthcoming: BID (or BB) was received while the first speaker was in the in-bracket state, or while the first speaker was in the between-brackets state and the first speaker denied permission. RTR will not be sent.

VTAM Hint: First speaker refers to the contention winner.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 Bracket bid reject: The component was in the in-bracket state when a bracket request was received.

0002 Bracket bid reject: The component was in the between-bracket state when a bracket request was received.

0814 Bracket bid reject—RTR forthcoming: BID (or BB) was received while the first speaker was in the in-bracket state, or while the first speaker was in the between-brackets state and the first speaker denied permission. RTR will be sent.

0815 Function active: A request to activate a network element or procedure was received, but the element or procedure was already active.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 A session activation request was received by a boundary function to activate a session that was already active.

0002 A session activation request was received by a gateway function to activate a cross-network session that was already active.

0003 Processing for another management services request in progress. Sender should retry the request.

Note: This sense data is sent only by a type 2 node, which may lack sufficient queuing space.

0004 A bind was received from an T2.1 node when the session receiver rejects the bind.

| **0005** An IPL function (the loading or storing of a load module) is in progress (MOSS** busy).

0006 The short hold mode logical connection selected has been recalled on another port.

0007 A session activation request was received by an APPN node to activate a CP-CP session that was already active.

0009 A session activation request was received by an APPN end node to activate a CP-CP session with a network node when a CP-CP session is already active with another network node.

0816 Function inactive: A request to deactivate a network element or procedure was received, but the element or procedure was not active.

Bytes 2 and 3 following the sense code contain sense code specific information. Settings allowed are:

0000 No specific code applies.

0001 A session deactivation request was received by an APPN node to deactivate a CP-CP session that was not active.

0817 Link or link resource inactive: A request requires the use of a link or link resource that is not active.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 Link inactive.

VTAM Hint: A possible cause of this error is that auto activation is not supported for the PU.

0002 Link station inactive.

0003 Switched link connection inactive.

0004 The TG number of the desired link has been renegotiated to a new value; the route cannot be activated.

0005 Service link inactive.

0006 The link between an SNA node and an attached processor is inactive; for example, the connection between the main processor and its attached service processor goes down.

0007 The requested test was not initiated because the link to be tested was put into an inactive state.

0008 The requested test was interrupted because the link to be tested was put into an inactive state.

0009 Transport configuration table entry not active.

VTAM Hint: An APPN host-to-host channel PU is being activated and one of following has occurred:

- The RDTE for the transport resource list element (TRLE) whose name is specified in the PU definition cannot be found in the transport resource list (TRL).
- The RDTE for the TRLE can be found but is already in use by another PU.

VTAM fails the activation of the PU and the PU is left in an inactive state.

Perform the following steps:

- Issue a D NET,ID=*puname* command to determine which TRLE name is specified on the PU definition statement.
- Issue a D NET,TRL command to get a list of the TRLEs that are defined in the TRL.

If the name specified on the PU definition cannot be found in the list obtained using the D NET,TRL command, verify that the TRLE name is spelled properly in the PU definition and that the TRLE name exists and is spelled properly in the TRL definition.

If the TRLE name in the PU definition is also on the list obtained in response to the D NET,TRL command, the current state of the TRLE should be active, indicating that another PU is already using this TRLE. Issue a D NET,TRL,TRLE=*trle_name* command to find the name of the PU already using this TRLE.

4001 Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

0818 Link procedure in process: CONTACT, DISCONTACT, IPL, or other link procedure in progress when a conflicting request was received.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

0002 Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

0003 CONTACT not serialized, retry: An initial CONTACT procedure is in progress and a nonactivation CONTACT was received by the PU. The nonactivation CONTACT is rejected until the initial CONTACT procedure is completed.

0004 Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

0005 Link problem determination test for a modem in progress.

0006 On-line terminal test in progress.

0007 SDLC link test, level 2, in progress.

0009 The requested test was not initiated because another test was already in progress.

000A An Online Terminal Test (OLTT) is active on the service link.

000B SDLC link test, level 2, in progress on the service link.

000C Link problem determination test for a modem on the service link in progress.

0819 RTR not required: Receiver of Ready To Receive has nothing to send.

081A Request-sequence error: Invalid sequence of requests.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 An ACTLU was received and no SSCP-PU session exists.

0002 An IPL or DUMP RU sequence error has occurred.

0004 An NC_ER_TEST was to be sent as a result of receiving a ROUTE_TEST request. The ROUTE_TEST was sent in one subnetwork, the NC_ER_TEST was to be sent in another. The SSCP sending the ROUTE_TEST did not have a required alias address within the subnetwork where the NC_ER_TEST was to be sent. (Before sending ROUTE_TEST, the SSCP sends RNAA, or the installation predefines the alias address, so that an origin SSCP address is available within the subnetwork of the route being tested. This address is then specified in the NC_ER_TEST RU.)

0006 RNAA Rejected: If the PU to which the LU is to be added is RNAA added and a control vector has not been received, the RNAA is rejected. A SETCV for the PU has not been received and processed.

0007 A CONTACT, BIND, or ACTLU has been received from an SSCP that has not established ownership of a permanent (system-defined) resource. The resource is not usable until RNAA(Move) has been received.

0008 A CONTACT, BIND, or ACTLU has been received from an SSCP that has not established ownership of a temporary (DR added) resource. The resource is not usable until RNAA(ADD) has been received.

0009 Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product.

000F Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product.

0010 The request is rejected or fails because the entry point or a target resource in the entry point is already in the state or condition that the request would have produced.

0011 A CONTACT was received specifying APPN in its Connection Support field, but was not preceded by a CONNOUT, a protocol violation.

0012 A CONTACT was received with a Connection Support field value that does not match that in the preceding CONNOUT.

0013 A CONNOUT, specifying LEN in its Connection Support field, was received for a nonswitched link station, a protocol violation.

0014 A CONTACT was received for an intra-FRSE PVC segment subport whose frame-relay port is in a discontacted state. The CONTACT is rejected.

0015 A CONTACT was received for an RNAA-added intra-FRSE PVC segment subport and a SETCV with a FRSE (X'80') control vector has not been received. The CONTACT is rejected.

081B Receiver in transmit mode (a race condition): Normal-flow request received while the half-duplex contention state was not-receive, (*S,¬R), or while resources (such as buffers) necessary for handling normal-flow data were unavailable. (Contrast this sense code with sense code X'2004', which signals a protocol violation.)

081C Request not executable: The requested function cannot be executed, because of a permanent error condition in the receiver.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

Note: For VTAM sense codes, the meaning of the data in bytes 2 and 3 is dependent upon the context of the sense code.

0000 No specific code applies.

0002 The receiver has an error resulting from a software problem that prevents execution of the request.

0004 **For Request Dump request units**:

A requested NCP dump has been terminated because of a permanent I/O error on the dump file—the dump is partially complete and can be formatted and printed.

For Activate Link and Deactivate Link request units:

During activation of a channel link, the channel device name for the link to be activated did not consist of 3 valid hexadecimal digits.

0008 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

VTAM is unable to successfully open the data set containing the NCP load module.

For Request Dump request units:

A requested NCP dump has been terminated because of a permanent communication controller I/O error—the dump is partially complete and can be formatted and printed.

For Activate Link and Deactivate Link request units:

During activation of a channel link, the channel device name for the link to be activated was found not to have been defined to the operating system.

0009 Device address is not online due to system action or explicit system operator action. The device must be varied online. Contact the system operator.

000C **For Request Load (Conditional) and Request Load (Unconditional) request units**:

One of the following has occurred:

- A permanent I/O error has occurred on the diagnostic or load-module data set.
- The diagnostic program has detected a probable communication controller hardware error.
- A permanent I/O error has occurred on the communication controller. Check that the channel adapter is enabled and that the device address is attached.

For Request Dump request units:

A requested NCP dump has been terminated because of a permanent I/O error on the dump file—the dump data set cannot be formatted and printed.

For Activate Link and Deactivate Link request units:

The hardware device type associated with the channel device name of the channel link being activated is not supported by the PU receiving an ACTLINK.

0010 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

A time-out has occurred while the diagnostic load program was running (hardstop in the communication controller).

For Request Dump request units:

A requested NCP dump has been terminated because of a permanent communication controller I/O error—the dump data set cannot be formatted and printed.

For Activate Link and Deactivate Link request units:

During activation of a channel link, the attached device specified by a channel device name could not be allocated because it was already allocated to another user.

VTAM Hint:

- This sense code can occur in response to a VARY ACT command for an NCP if U=*device_address* is specified on the command when the same device address has already been activated.
- When this sense code is received in message IST380I for an ACTLINK request, message IST1386I may also be issued. Refer to the return code and reason code in IST1386I to determine the cause of the failure.

0014 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

The loaded NCP has encountered an error, preventing successful initialization.

For Request Dump request units:

Cannot successfully open the dump data set.

0018 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

Load not performed—HALT is in progress.

001C **For Request Load (Conditional) and Request Load (Unconditional) request units**:

The communication controller dump-load-restart router has received an input work element that contains an unrecognized command code. The NCP load module is not present in the load module data set (BLDL failure).

This error may also occur if there is an I/O error while loading the file.

0020 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

A permanent I/O error has occurred. Possible reasons include, but are not limited to, the following:

- The device type is not defined properly.
- The communication controller is not in the proper state for loading.
- The service processor is not in the proper state. For example, MOSS-E is powered off.
- A hardware error occurred.

- The channel adapter address in NCP GEN may not match the hardware address.

For Request Dump request units:

Unable to successfully load a necessary dump utility module, or insufficient storage is available.

For Activate Link and Deactivate Link request units:

VPBUF storage is insufficient.

0024 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

VTAM is unable to successfully open the data set containing the diagnostic program (ddname INITTEST).

0028 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

A load of an NCP was requested with an SSP release prior to V3R4 and a release of VTAM prior to V3R2 (this is prohibited), or IFWLEVEL was not loaded with SSP V3R4.

For Activate Link and Deactivate Link request units:

During deactivation of a channel link, a device could not be deallocated by the operating system.

For Request Dump request units:

A requested NCP dump has been terminated because ENQUEUE of the dump data set failed—DASD was not opened and the dump data set cannot be formatted and printed.

002C **For Request Load (Conditional) and Request Load (Unconditional) request units**:

The diagnostic program has detected a probable communication controller hardware error.

0030 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

The NCP or diagnostic program load module has a block size greater than 1024 bytes (the DC option was not specified when the link edit was performed), or the channel adapter address of the controller is not correct in NCP GEN.

For Activate Link and Deactivate Link request units:

During activation of a channel link, the operating system path validation failed for the device specified by the channel device name.

0034 **For Activate Link and Deactivate Link request units**:

An SSCP sent ACTLINK or DACTLINK for a resource type to which ACTLINK or DACTLINK does not apply.

0038 **For Activate Link and Deactivate Link request units**:

During activation or deactivation of a channel link, the RDTE was not found, causing a permanent error in locating the resource definition was detected in the PU.

If this sense code is issued as the result of the activation of a 3172 XCA major node, verify that the ADAPNO parameter on the PORT definition statement matches the adapter number assigned by the IBM* 3172 communication controller.

003C **For Request Load (Conditional) and Request Load (Unconditional) request units**:

The communication controller unit control block does not contain a valid value for the channel-adapter-type field, or the channel adapter address of the controller is not correct in NCP GEN.

For Activate Link and Deactivate Link request units:

During activation of a channel link, the device specified by the channel device name was found not to have been made available by the operating system.

0040 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

The NCP or diagnostic program load module is improperly constructed.

For Activate Link and Deactivate Link request units:

During activation of a channel link, the operating system could not complete OPEN processing, denying access to the channel link.

For Request Dump request units:

A requested NCP dump has been terminated because the dump file is empty.

0044 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

The IFLOADRN communication controller load utility program is unable to allocate sufficient storage.

0048 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

The function is already active; the NCP is already loaded.

004A **For Request Load (Conditional) and Request Load (Unconditional) request units**:

The NCP is ready to receive the load module.

004C **For Request Load (Conditional) and Request Load (Unconditional) request units**:

The size of the NCP load module exceeds the storage capacity of the communication controller.

0050 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

A permanent I/O error has occurred on the NCP load-module library.

0054 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

A permanent I/O error has occurred on the diagnostic program load-module library (ddname INITTEST).

0058 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

A diagnostic program cannot be located in the diagnostic program load-module library (ddname INITTEST)—BLDL failure.

005C **For Request Load (Conditional) and Request Load (Unconditional) request units**:

Request Load (conditional) is attempted while another host is already loading the communication controller (unit exception on SENSE channel program).

0060 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

Start I/O condition code 3 on SENSE channel program can occur for the following reasons:

- Request load (conditional) is attempted while another host is already loading the communication controller.
- Channel bypass switch is on.
- If the request load is attempted through an ESCON* channel, check the fiber link for loose connectors.

0064 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

A load I/O operation (to a link-attached communication controller) has been purged (by VARY INACT or error recovery of the communication controller of another node in the path to the communication controller).

0068 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

A load I/O operation (to a link-attached communication controller) has failed (a negative response has been generated by the adjacent communication controller).

0070 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

A load from the disk was initiated, and the save was ignored.

0074 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

Error caused by specifying DIAG with the 3725 or the 3720.

0078 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

Either the CCU is not at the correct level, or the CTLR disk option is not available.

007C **For Request Load (Conditional) and Request Load (Unconditional) request units**:

Load module not available on disk.

0080 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

MOSS error–load module not loaded from the disk.

0084 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

MOSS error–load module and switch not saved.

0088 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

The disk function is not supported. Either the CCU is not the correct level, or the CTLR disk option is not available.

008C **For Request Load (Conditional) and Request Load (Unconditional) request units**:

The NCP load module has an entry point address of zero.

0090 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

Warning–loading continued: cannot perform LOADFROM, SAVEMOD, or DUMPLOAD.

00AB **For Request Load (Conditional) and Request Load (Unconditional) request units**:

Load not performed—the load subtask has abended.

For Request Dump request units:

Dump not performed—the dump subtask has abended.

00B0 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

Probable MOSS error–the load module or switch may not be saved.

00B4 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

MOSS error–switch not saved.

00B8 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

Load already in progress.

00BC **For Request Load (Conditional) and Request Load (Unconditional) request units**:

Duplicate load module on the disk.

00C0 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

No room on the disk.

00C4 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

A disk resource is temporarily unavailable.

00C8 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

RU length error.

00CC **For Request Load (Conditional) and Request Load (Unconditional) request units**:

The request was cancelled by the operator.

00D0 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

A fast load was not performed, a sequential load has been started.

00D4 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

The logical unit block (LUB) for the controller is not valid.

00D8 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

The scheduled IPL cannot be cancelled because it was never scheduled.

00DC **For Request Load (Conditional) and Request Load (Unconditional) request units**:

The function is not supported.

00E0 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

RU sequence error.

00E4 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

Another load module has been scheduled to IPL within five minutes on the MOSS disk.

00E8 A request was made to BINDER to perform the GETBUF function. The request failed with the return code specified in the message.

00EC A request was made to BINDER to perform the STARTD function. The request failed with the return code and reason code specified in the message.

00F0 A request was made to BINDER to perform the CREATEW function. The request failed with the return code and reason code specified in the message.

00F2 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

IPL time is earlier than the system time.

00F4 A request was made to BINDER to perform the INCLUDE function. The request failed with the return code and reason code specified in the message.

00F6 **For Request Load (Conditional) and Request Load (Unconditional) request units**:

Notify time is earlier than the system time.

00F8 A request was made to BINDER to perform the GETDATA function. The request failed with the GETDATA function. The request failed with the message.

00FC A request was made to BINDER to perform the FREEBUF function. The request failed with the return code specified in the message.

0A01 An error was detected by the DLC manager of the receiving node during the execution of a management services request. The link connection status has not changed from the state previous to the execution. Volatile storage error.

0A02 An error was detected by the DLC manager of the receiving node during the execution of a management services request. The link connection status has not changed from the state previous to the execution. Nonvolatile storage error.

0A03 An error was detected by the DLC manager of the receiving node during the execution of a management services request. The link connection status has not changed from the state previous to the execution. Link connection component interface error.

0A04 An error was detected by the DLC manager of the receiving node during the execution of a management services request. The link connection status has not changed from the state previous to the execution. Unspecified software error condition.

0B01 An error was detected by the DLC manager of the receiving node during the execution of a management services request. The link connection status was modified from the state existing previous to the execution. Volatile storage error.

0B02 An error was detected by the DLC manager of the receiving node during the execution of a management services request. The link connection status was modified from the state existing previous to the execution. Nonvolatile storage error.

0B03 An error was detected by the DLC manager of the receiving node during the execution of a management services request. The link connection status was modified from the state existing previous to the execution. Link connection component interface error.

0B04 An error was detected by the DLC manager of the receiving node during the execution of a management services request. The link connection status was modified from the state existing previous to the execution. Unspecified software error condition.

081D Invalid Network Address or Name: A node, station, or CP identifier in the request was found to be invalid.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 The station ID or SSCP ID in the request was found to be invalid.

0001 The network ID, LU name pair in the request was found to be invalid.

0002 Invalid resource name found in the request.

0003 The network ID, SSCP name pair in the request was found to be invalid.

0004 A duplicate CP name has been detected, causing the links to one or both nodes to be deactivated.

VTAM Hint: If a PU will always be used as a LEN node, CONNTYPE=LEN should be specified on the PU definition statement.

081E Session reference error: The request contained reference to a half-session that either could not be found or was not in the expected state (generally applies to network services requests).

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

VTAM Hint: A possible cause of this error is that the ACTCDRM was sent to the incorrect network in the gateway NCP.

0001 No session found: The session identified in the BFCLEANUP was not found; the BFCLEANUP is rejected.

0002 The session identified in the BFCINIT was not found; the BFCINIT is rejected.

0003 No session was found during the processing of a session services request.

0004 The appropriate session was found during processing of a session services request, but the session is not in the expected state.

0820 Control vector error: Invalid data for the control vector specified by the target network address and key.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

VTAM Hint: If this sense code is set in response to a SETCV RU, then the MAXOUT value is incorrect. It must be between 1 and 127, or equal to 1 or 127.

0001 In a SETCV defining an intra-FRSE PVC subport set, one or both of the primary subport partners that define the subport set are not defined.

0002 In a SETCV defining an intra-FRSE PVC subport set, a specified element address does not define a subport within a subport set, or is defined more than once in a subport set.

0003 An element address of an intra-FRSE PVC subport set received in a SETCV was found to be already associated with another subport set.

0821 Invalid session parameters: Session parameters included on a BIND were not valid or not supported by the half-session whose activation was requested. The session parameters are usually obtained from the logmode table entry.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

VTAM Hint: Possible causes of this error include, but are not limited to, the following:

- Sessions cannot log on to CICS.

  If this problem occurs, the sense code is displayed in message IST663I, and *request* is **CINIT**. When running CICS with AUTO-INSTALLATION, the terminal definition in the terminal control table terminal entry (TCTTE) must match the VTAM LOGMODE definition statement for the device. See the section on common subarea network problems, Chapter 1, “Diagnosing VTAM Problems: Where to Begin” in *VTAM Diagnosis* for more information about this problem.
- The PLU has rejected the BIND session parameters.
- The cryptographic function referenced in the logmode table entry is not active in all SSCPs involved in establishing the session.

0001 Invalid mode name at LU: The specified mode name was not recognized by the LU.

0002 Invalid mode name at CP: The specified mode name was not recognized by the CP.

VTAM Hint: Possible causes of this error include, but are not limited to, the following:

- A logon mode name was not specified when using dynamic reconfiguration to add a logical unit.
- The logon mode name associated with the session request was not found in the specified mode table or in the default logon mode table (ISTINCLM).

Verify that the requested logon mode name is defined in the following places:

- In a subarea environment, the mode name must be defined in the SSCP of the secondary logical unit (SLU).
- In an APPN environment, the mode name must be defined in the origin and destination nodes, as well as the servers of the origin and destination nodes (if the origin and/or destination is owned by an end node).
- In a combined APPN and subarea environment, the mode name must be defined at the APPN node that owns the origin or destination, the server of that node (if it is an end node), and at the interchange node(s) that represents the subarea entry points.

  If the SLU is owned by a subarea node other than the interchange node representing the subarea entry point, the mode name must also be defined there.

Since mode table names are not carried on APPN line flows, a user-defined mode table is only used at the SSCP of the SLU. Other nodes defining the mode must define it in the default logon mode table. See “What do you get if you take all the defaults?” in the *VTAM Network Implementation Guide* for information on mode-to-class-of-service (COS) resolution in an APPN or combined APPN/subarea environment.

0003 The primary half-session requires cryptography, but the secondary half-session does not support cryptography.

0004 The secondary half-session requires cryptography, but the primary half-session does not support cryptography.

0005 Selective or required cryptography is specified, but no SLU cryptographic data key is provided.

0006 The BIND was rejected because it was non-negotiable and specified a primary send pacing window size larger than the SSCP or boundary function (BF) can handle, as determined by the logon mode entry or PACING/VPACING parameters.

0007 The specified mode name was not recognized in a subarea network.

000A Specified mode table name not found at receiving CP.

VTAM Hint: This sense code indicates that the mode table associated with the LU was not found. Verify that the specified table exists and activate it if necessary.

| **000B** The PLU requires message authentication code support, but it cannot be supported.

| **000C** The SLU requires message authentication code support, but it cannot be supported.

0822 Link procedure failure: A link-level procedure has failed because of link equipment failure, loss of contact with a link station, or an invalid response to a link command. This is not a path error, since the request being rejected was delivered to its destination.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies

VTAM Hint: Ensure that you have activated the correct line.

0001 The controller is not loaded, but it is ready to receive a load module.

0010 Product-specific sense code.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product.

80nn nn is product-specific and will not be otherwise defined in SNA.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. It may be issued by NCP. See *NCP, SSP, and EP Messages and Codes* for a description of sense codes set by NCP.

0823 Unknown control vector: The control vector specified by a network address and key is not known to the receiver.

0824 Logical unit of work abnormally terminated: The current unit of work has been abnormally terminated; when sync point protocols are in use, both sync point managers are to revert to the previously committed sync point.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 For LU 6.2, backout initiated: A transaction program or its LU has initiated backout. The protected resources for the distributed logical unit of work are to be restored to the previously committed sync point. This sense data is sent only in FMH-7.

For non-LU 6.2, no specific code applies.

0001 For LU 6.2, backout initiated — Resync In Progress: A transaction program or its LU has initiated backout. The protected resources for the distributed logical unit of work are to be restored to the previously committed sync point.

When sent in reply to a PS header, resync in progress means that one or more resources in the transaction subordinate to the backout sender have experienced failure so it is not known whether they've backed out.

0825 Component not available: The LU component (a device indicated by an FM header) is not available.

0826 FM function not supported: A function requested in an FMD RU is not supported by the receiver.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0827 Intermittent error—retry requested: An error at the receiver caused an RU to be lost. The error is not permanent, and retry of the RU (or chain) is requested.

0828 Reply not allowed: A request requires a normal-flow reply, but the outbound data flow for this half-session is quiesced or shut down, and there is no delayed reply capability.

0829 Change direction required: A request requires a normal-flow reply, but the half-duplex flip-flop state (of the receiver of the request) is not-send, and change direction (CD) was not set on the request. Therefore, there is no delayed reply capability.

082A Presentation space alteration: Presentation space altered by the end user while the half-duplex state was not-send, (¬S,*R); request executed.

082B Presentation space integrity lost: Presentation space integrity lost (for example, cleared or changed) because of a transient condition, for example, because of a transient hardware error or an end-user action such as allowing presentation services to be used by the SSCP.

Note: The end-user action described under sense codes X'082A' and X'084A' is excluded here.

082C Resource-sharing limit reached: The request received from an SSCP was to activate a half-session, a link, or a procedure, when that resource was at its share limit.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

VTAM Hint: A possible cause of this error is that the line you are attempting to activate is already active to another SSCP.

0001 Invalid request: The specified link station has already received a CONTACT and is therefore under the control of another SSCP. This CONTACT would exceed the share limit (=1).

0002 Invalid Request: The specified PU has already received an ACTPU and is therefore under the control of another SSCP. This ACTPU exceeds the share limit of 1.

VTAM Hint: This sense code is for an ACTPU request which is not valid and is issued when the PU is already active. It is set by the dependent LU requester (DLUR). When VTAM receives this sense code on the ACTPU response, it deactivates the PU and fails the VARY DIAL or DIAL START command.

082D LU busy: The LU resources needed to process the request are being used; for example, the LU resources needed to process the request received from the SSCP are being used for the LU-LU session.

082E Intervention required at LU subsidiary device: A condition requiring intervention, such as out of paper, or power-off, or cover interlock open, exists at a subsidiary device.

082F Request not executable because of LU subsidiary device: The requested function cannot be executed, because of a permanent error condition in one or more of the receiver's subsidiary devices.

0830 Session-related identifier not found: the receiver could not find a session-related identifier for a specified session.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0001 PCID not found for the specified resources.

0002 LSID not found for the specified session.

0831 LU component disconnected: An LU component is not available because of power off or some other disconnecting condition.

0832 Invalid count field: A count field contained in the request indicates a value too long or too short to be interpreted by the receiver, or the count field is inconsistent with the length of the remaining fields.

nnnn Bytes 2 and 3 contain a binary count that indexes (zero-origin) the first byte of the invalid count field.

Note: This sense code is not used for a BIND error because the displacement of fields within the BIND may not be the same at both ends of a session when the BIND was affected by name transformations, for example, after the BIND has passed through a gateway. Sense code X'0835' is used to specify a displacement for a BIND error.

0833 Invalid parameter (with pointer and complemented byte): One or more parameters contained in fixed- or variable-length fields of the request are invalid or not supported by the NAU that received the request.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

nnmm Byte 2 contains a binary value that indexes (zero-origin) the first byte of the invalid parameter.

Byte 3 contains a transform of the first byte that contained an invalid parameter: the bits that constitute the one or more invalid parameters are complemented, and all other bits are copied.

Note: This sense code is not used for a BIND error because the displacement of fields within the BIND may not be the same at both ends of a session when the BIND was affected by name transformations, for example, after the BIND has passed through a gateway. Sense code X'0835' is used to specify a displacement for a BIND error.

0834 RPO not initiated: a power-off procedure for the specified node was not initiated because one or more other SSCPS have contacted the node, or because a contact, dump, IPL, or discontact procedure is in progress for that node.

0835 Invalid parameter (with pointer only): The request contained a fixed- or variable-length field whose contents are invalid or not supported by the NAU that received the request.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

000A The SLU maximum RU size is not valid.

000B The PLU maximum RU size is not valid.

nnnn Bytes 2 and 3 contain a 2-byte binary count that indexes (zero-origin) the first byte of the fixed- or variable-length field having invalid contents.

Note: This sense code is not used to report an invalid value in an MS major vector. If the invalid value occurs in a formatted MS subvector, sense code X'086B' is used. If it occurs in an unformatted subvector, sense code X'0870' is used.

VTAM Hint: Sense code 083500*nn* indicates that the BIND contains parameters that are not valid and supplies an index (*nn*) into the BIND that identifies the bytes that the BIND receiver cannot interpret. A buffer trace can provide more problem determination information. See the section on common subarea network problems, Chapter 1, “Diagnosing VTAM Problems: Where to Begin” in *VTAM Diagnosis* for more information about this problem.

0836 PLU/SLU specification mismatch: For a specified LU-LU session, both LUs are either only primary session capable, or only secondary session capable. A session cannot be established between these two LUs.

0837 Queuing limit exceeded: For an LU-LU session initiation request (INIT, CDINIT, or INIT-OTHER-CD), specifying (1) Initiate or Queue (if Initiate not possible) or (2) Queue Only, the queuing limit of either the OLU or the DLU, or both, was exceeded.

VTAM Hint: A possible cause of this error is that the value of MAXSUBA is not consistent throughout the network.

0838 Request Not Executable Because of Resource or Component State Incompatibility: The request is not executable because it is not compatible with the state of a resource or component in the receiver.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 The sender has sent valid data. The data parses correctly, but the receiver is in the wrong state to process it because it is not what was expected.

For example, in focal point function, the entry point sends a X'63' subvector, but the focal point incorrectly sends back a X'62' subvector rather than a X'64' subvector. The receiver does not expect the X'62' subvector and cannot process it.

0001 The change referred to in a request change control MS Major Vector or Report-FS-Action command cannot be deleted or replaced because it is installed marked removable.

0002 One or more of the changes referred to in a request change control MS Major Vector cannot be installed, removed, or accepted because they are in back-level state.

0003 One or more of the changes referred to in a request change control MS Major Vector cannot be installed marked on-trial because they are already installed marked on-trial.

0004 One or more of the changes referred to in a request change control MS Major Vector cannot be installed marked on-trial or in-production because they are already installed marked in-production removably. They can, however, be accepted if desired.

0005 One or more of the changes referred to in a request change control MS Major Vector cannot be installed marked on-trial or in-production because they are already installed marked in-production and nonremovable. The only possibility is to perform data object renewal using send-and-install with removability prohibited or desired--but not required.

0006 One or more of the changes referred to in a request change control MS Major Vector cannot be removed or accepted because they are installed marked nonremovable

0007 One or more of the changes referred to in a request change control MS Major Vector cannot be removed or accepted because they are not installed.

0008 Pre-test is not applicable to one or more of the changes referred to in a request change control MS major vector.

0009 Execution window timing is not applicable to one or more of the changes referred to in a Request Change Control MS major vector

000A Automatic removal is not applicable to one or more of the changes referred to in a request change control MS major vector.

000B Post-test is not applicable to one or more of the changes referred to in a request change control MS Major Vector.

000D One or more of the changes referred to in a request change control MS Major Vector cannot be installed marked in-production because they are installed marked on-trial with a set of corequisites different from those requested on this install request.

000E One or more of the changes referred to in a request change control MS Major Vector cannot be accepted because they are installed marked on-trial.

000F One or more of the changes referred to in a request change control MS Major Vector or Report-FS-Action command cannot be replaced or deleted because they are critical system components that must always have an installed instance. The only possibility is to perform data object renewal using Send-And-Install with removability prohibited or desired--but not required.

0010 One or more of the changes referred to in a request change control MS Major Vector or Report-FS-Action command cannot be stored or installed because an implementation-defined limit on the number of changes has been exceeded.

0011 One or more of the changes referred to in a request change control MS Major Vector or Report-FS-Action command cannot be deleted or replaced because they are required in order to maintain removability of other changes. They may be in backup state or installed marked in-production.

0012 One or more of the corequisite changes referred to in a request change control MS Major Vector are missing or are in a state incompatible with the request.

0013 The change referred to in a request change control MS Major Vector or Report-FS-Action command cannot be replaced because it is installed marked in-production and non-removable and another change is not being installed in this operation.

0014 One or more of the changes referred to in a request change control MS Major Vector cannot be installed because a precluded combination of values in the removability, automatic removal, automatic acceptance, or activation use subfields was specified.

0015 One or more of the changes referred to in a request change control MS Major Vector cannot be installed because one or more changes already installed are still removable for one or more components to be altered by these changes.

0016 One or more of the changes referred to in a request change control MS Major Vector or Report-FS-Action command cannot be replaced because they would be required for removable installation, and removability is required.

0017 Execution of the request referred to in an MS Cancel major vector has proceeded too far to cancel.

0039 Queuing not supported

003A The requested function cannot be completed because the specified adjacent node's CP Capabilities GDS variable does not indicate support for the complementary function.

VTAM Hint: This error will occur if the host CP is running VTAM Version 4 Release 2 or higher and you attempt to manually activate CP-CP sessions over an active APPN connection with an adjacent CP that does not support manual activation of CP-CP sessions over active APPN connections. To activate CP-CP sessions with the adjacent CP, you should first deactivate the APPN connection and then reactivate it.

0839 LU-LU session being taken down or LU being deactivated.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 During session-initiation processing, a session-termination request has caused the LU-LU session to be taken down.

0002 RNAA (type 3) received for a session during the process of session deactivation. The RNAA should be retried.

0003 SSCP detected that this session should no longer exist and requested its termination. For example, BFSESSINFO was received, reporting a subject LU address that the SSCP believed already belonged to a cross-domain resource.

083A LU not enabled: At the time an LU-LU session initiation request is received at the SSCP, at least one of the two LUs, though having an active session with its SSCP, is not ready to accept CINIT or BIND requests.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 The PLU is not enabled.

0002 The SLU is not enabled.

083B Invalid PCID: The received PCID for a new session duplicated the PCID assigned to another session, or the received PCID intended as an identifier for an existing session could not be associated with such an existing session, or an error was detected in the format of the received PCID.

VTAM Hint: PCID means procedure-correlation identifier.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 The PCID contained in CDINIT(Initiate or Queue), INIT-OTHER-CD, or CDTAKED duplicates a PCID received previously in one of these requests.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

VTAM Hint: This error can occur during an attempt to take over a switched connection because a connection-network-capable control point (CP) on the connection network does not have a complete system definition. See the section on common APPN problems, Chapter 1, “Diagnosing VTAM Problems: Where to Begin” in *VTAM Diagnosis* for more information about this session takeover problem.

0002 The received fully qualified PCID duplicated one assigned to another session.

VTAM Hint: PCID means procedure-correlation identifier.

When VTAM receives an ACTPU.RSP(-) with this sense code, VTAM will delete the old PCID, then resend the ACTPU request with the newly-generated PCID.

A bind path has looped. For more information, see *Peripheral Subnetwork Boundaries* in *VTAM Network Implementation Guide*.

0003 The received fully qualified PCID contains a network-qualified CP name identical to that of the receiving node.

0004 The received fully qualified PCID duplicated one assigned to another route setup procedure.

0005 The fully qualified PCID received in BFCINIT is not assigned to an existing route setup procedure. The BFCINIT is rejected.

0006 The fully qualified PCID received in BFCLEANUP is not assigned to an existing route setup procedure. The BFCLEANUP is rejected.

083C Domain-takedown contention: While waiting for a response to a CDTAKED, a CDTAKED request is received by the SSCP containing the SSCP-SSCP primary half-session. Contention is resolved by giving preference to the CDTAKED sent by the primary half-session.

083D Dequeue retry unsuccessful—removed from queue: The SSCP cannot successfully honor a CDINIT(Dequeue) request (which specifies “leave on queue if dequeue-retry is unsuccessful”) to dequeue and process a previously queued CDINIT request (for example, because the LU in its domain is still not available for the specified session), and removes the queued CDINIT request from its queue.

083E Session key 08 required.

0000 No specific code applies.

0001 The implementation-defined limit on XID exchanges was exceeded before link activation completed.

0002 The implementation-defined limit on XID exchanges was exceeded before a nonactivation exchange completed.

0004 The implementation-defined limit on contention-winner CP-CP session activation attempts has been exceeded.

083F Terminate contention: While waiting for a response to a CDTERM, a CDTERM is received by the SSCP of the SLU. Contention is resolved by giving preference to the CDTERM sent by the SSCP of the SLU.

0840 Procedure invalid for resource: The named RU is not supported in the receiver for this type of resource. For example, (1) SETCV specifies boundary function support for a type 1 node, but the capability is not supported by the receiving node or (2) the NCP PU receiving an EXECTEST or TESTMODE is not the primary NCP PU for the target link.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 Surrogate session setup failed.

0002 Link cannot be used because it supports only HPR routing and the session requires non-HPR routing.

VTAM Hint: A possible cause of this error is that a session request was received from an adjacent VTAM subarea node by a VTAM APPN node that supports only HPR routing, such as a VTAM node that communicates in native mode across an asynchronous transfer mode (ATM) network.

0003 Invalid link: The link to which the PU is to be added is not an SNA link. Only SNA links are supported.

0004 Invalid link: A request that is allowed only for a nonswitched link was received for a link that is defined to the receiver as switched.

0005 Resource was not dynamically added: This request works only with resources that were added through dynamic reconfiguration.

0007 Resource not found: A DELETE or FIND could not be satisfied because the specified entry does not exist in the receiver's directory.

VTAM Hint:

- VTAM cannot find a model definition to build a dynamic application program when the dynamic application program requests to open its ACB.
- VTAM cannot find a dynamic application program when the dynamic application program requests to close its ACB.

0008 The directory entry cannot be deleted. The network node received a DELETE with a delete entry condition indicating that the entry can be deleted only if it is a leaf. The entry is not a leaf; therefore, the DELETE is rejected.

0009 RNAA(Move) received a resource that was added through dynamic reconfiguration. Such a resource may not be moved through RNAA(Move).

000A Procedure invalid for resource: A PN supporting independent LUs has dialed into a boundary function that does not support sessions with independent LUs. The SSCP cannot activate the independent LUs.

000B The REGISTER request specifies that a unique directory entry is required (for example, the REGISTER is for an LU), but there is a duplicate in the directory data base.

0010 A SETCV with control vector X'43' has been received for a nonswitched resource.

0011 A dynamically added or switched resource has not yet been activated.

0012 A request was received that is only allowed for a primary link station. The request must utilize the service link and that link is defined as secondary.

0013 A CONNOUT request was received that contained an invalid X.21 call type.

0014 A CONNOUT or CONTACT was received specifying that the receiver is to designate itself as an APPN end node in XID3s that it sends to an attached APPN or LEN.

0015 This sense data value is generated whenever an APPN session route must be calculated in two pieces (using two separate RSCVs) and it is determined that the two RSCVs identify a common node; that is, the session route passes through a given node twice.

0016 This sense data value is generated whenever an RSCV is pre-calculated because the OLU or DLU was thought to be in a subarea network and it is determined (based on the RSCV) that the location of the DLU is incorrect; that is, the RSCV indicates that the DLU is in the APPN network, but the DLU is really in a subarea network, or vice versa.

0017 A session initiation request was received for a multinode persistent enabled application program with a precalculated RSCV, but no HPR connection can be set up using the precalculated route.

VTAM Information: The Locate is resubmitted and the RSCV recalculated using a set of tail vectors that VTAM supplies on the Locate reply.

VTAM Hint: The error occured because a VTAM V4R2 or VTAM V4R1 node calculated the RSCV.

0841 Duplicate network address: In an LU-LU session initiation request, one of the specified LUs has a duplicate network address already in use. This error can be caused by a mismatch between the CDRM and NCP gateway NAU subarea/element definitions.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 The SSCP of the DLU determines that the OLU network address specified in the CDINIT request is a duplicate of an LU network address assigned to a different LU name.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0001 A duplicate SLU address is found during session initiation.

0002 A duplicate PLU address is found during session initiation.

0003 An SSCP finds a duplicate network address for the DLU on the OLU side of the gateway.

0004 An SSCP finds a duplicate network address for the DLU on the DLU side of the gateway.

0005 An SSCP finds a duplicate network address for the OLU on the OLU side of the gateway.

0006 An SSCP finds a duplicate network address for the OLU on the DLU side of the gateway.

VTAM Hint: Possible causes of this error include, but are not limited to, the following:

- A gateway NCP freed a network address before VTAM is finished with it. To diagnose the problem, first identify which LU has the network address and determine why NCP thinks it is freed. This will require looking at both a VTAM dump and a VTAM internal trace. Find the failing SRTA in the trace; it usually precedes the CPRC. From there, you can identify the LU. Most likely, there will be a SIB queued to the LU. This will provide some information about why the network address is still in use.
- There is a mismatch between this VTAM's CDRM definitions for a null network attached user and the user's gateway NCP GWNAU statements.

  For example, this VTAM has a CDRM definition for ADJNETEL=2, but the user's gateway NCP does not have a GWNAU statement for ELEMENT=2. The problem is intermittent because the gateway NCP assigns element numbers randomly.
- There are gateway NCPs sharing the same subarea in the same null network.

0008 An ACTCDRM request was received that contained a network address already in use.

0842 Session not active.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

VTAM Hint: The SSCP-SSCP session, which is required for the processing of a network services request, is not active. For example, at the time an LU-LU session initiation or termination request is received, at least one of the following conditions exists:

- The SSCP of the ILU and the SSCP of the OLU do not have an active session with each other, and therefore, INIT-OTHER-CD cannot flow.
- There is no active session between two specific SSCPs in the session setup path. RUs cannot be routed from one SSCP directly to the other SSCP. However, other SSCPs may be tried.

Note: This value is used if there is not enough data to select one of the more specific codes listed below.

0001 The session between type 2.1 CPs is not active.

0002 For a session-initiation request, an SSCP does not have an SSCP-SSCP session with an SSCP in the direction of the DLU.

0003 For a session-initiation request, an SSCP does not have an SSCP-SSCP session with an SSCP in the direction of the OLU.

0004 An intermediate SSCP has lost connectivity with an SSCP in the session setup path for an LU-LU session. This sense data is used when the SSCP previously lost connectivity with one or more participating gateway nodes so that it cannot learn that the LU-LU session is ended by receiving a NOTIFY RU from a gateway node.

FFFF Logon intercepted.

0843 Required synchronization not supplied: For example, a secondary LU (LU type 2 or 3) received a request with Write Control Code = Start Print, along with RQE and ¬CD.

0844 Initiation dequeue contention: While waiting for a response to a CDINIT(Dequeue), a CDINIT(Dequeue) is received by the SSCP of the SLU. Contention is resolved by giving preference to the CDINIT(Dequeue) sent by the SSCP of the SLU.

0845 Permission rejected—SSCP will be notified: The receiver has denied an implicit or explicit request of the sender; when sent in response to BIND, it implies that the secondary LU will notify the SSCP (via NOTIFY vector key X'0C') when a BIND can be accepted, and the SSCP of the SLU supports the notification. (See sense code X'080A' for a contrasting response.)

0846 ERP message forthcoming: The received request was rejected for a reason to be specified in a forthcoming request.

0847 Restart mismatch: Sent in response to STSN, SDT, or BIND to indicate that the secondary half-session is trying to execute a resynchronizing restart but has received insufficient or incorrect information.

0848 Cryptography function inoperative: The receiver of a request was not able to decipher the request because of a malfunction in its cryptography facility.

0849 System generation mismatch.

084A Presentation space alteration: The presentation space was altered by the end user while the half-duplex state was not-send, (¬S,*R); request not executed.

084B Requested resources not available: Resources named in the request, and required to honor it, are not currently available. It is not known when the resources will be made available.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

VTAM Hint: This error can be caused by a DR ADD for a duplicate address. Check your DR statements to see if an address was duplicated.

0001 BIND queuing not supported, retry: The SLU is not available and the sender of the UNBIND does not support BIND queuing as requested by the PLU.

0002 Requested resource not available: For dynamic reconfiguration MOVE, ADD, or ADDLINK operation, the requested local address is already assigned to an active resource. For MOVE PU, this is the DLC address; for MOVE LU, the LU local address.

0003 The application transaction program specified in the request is not available.

0004 Session Resources Unavailable: The receiver of the RNAA cannot satisfy the request for reserved session resources specified on the Assign LU Characteristics (X'30') control vector.

VTAM Hint: A possible cause of this error is a mismatch between the values specified on the EAS and MAXSESS operands on the BUILD definition statement.

0005 Controller resource is not available.

0009 The intersubnetwork Locate failed because the maximum number of intersubnetwork hops was exceeded. The value of the Maximum Intersubnetwork Hop Count field in the Locate was reduced by a number greater than 1 while being processed by a border node along the route.

6002 The resource identified by the destination program name (DPN) is not supported.

6003 The resource identified by the primary resource name (PRN) is not supported.

6031 Transaction program not available—retry allowed: The FMH-5 Attach command specifies a transaction program that the receiver is unable to start. Either the program is not authorized to run or the resources to run it are not available at this time. The condition is temporary. The sender is responsible for subsequent retry. This sense data is sent only in FMH-7.

084C Permanent insufficient resource: Receiver cannot act on the request because resources required to honor the request are permanently unavailable. The sender should not retry immediately because the situation is not transient. This error can occur if MAXBFRU is either not read because of a coding error or not coded.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 For LU 6.2, transaction program not available—no retry: The FMH-5 Attach command specifies a transaction program that the receiver is unable to start. The condition is not temporary. The sender should not retry immediately. This sense data is sent only in FMH-7.

For non-LU 6.2, no additional information is specified.

0001 Request not processed: Processing an ACTLINK request, and read buffers not allowed. The ACTLINK request will not be processed.

0002 Creating allocation exception: the receiver is unable to create the specified data object as a result of an insufficient storage condition that occurred at allocation time.

0003 Replacing allocation exception: the receiver is unable to replace the specified data object as a result of an insufficient storage condition that occurred at allocation time.

0006 Data-object storing exception: the receiver is unable to store the specified data object as a result of an insufficient storage condition that occurred during the storing process.

0007 Data-object classification code not supported: the receiver is unable to satisfy the allocation requirements of the specified data-object classification code.

0008 Volume not mounted: the receiver is unable to perform the requested allocation/storing operation because the required volume is not mounted.

hnnn Where *h*≥8; that is, the high-order bit in byte 2 is set to 1. The 15 low-order bits of bytes 2 and 3 contain a binary count that indexes (zero-origin) the first byte of the field found to be in error.

084D Invalid session parameters—BF: The session parameters were not valid or were unacceptable by the boundary function.

084E Invalid session parameters—PRI: A positive response to an activation request (for example, BIND) was received and was changed to a negative response because of invalid session parameters carried in the response. The services manager receiving the response sends a deactivation request for the corresponding session. This error can occur if NETIDs are coded incorrectly on any NETWORK statements in CDRM definitions. See the *VTAM Resource Definition Reference* for more information.

084F Resource not available: A requested resource is not available to service the given request.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 The disk is full; therefore, the load module cannot be stored.

0002 The security component is not available.

0850 Link-level operation cannot be performed: An IPL, dump, or remote power off (RPO) cannot be performed through the addressed link station because the system definition or current state of the hardware configuration does not allow it.

0000 No specific code applies.

0001 Link Activation Limit Reached: The specified TG was not activated because the maximum number of active link stations allowed on this port has already been reached.

0851 Session busy: Another session that is needed to complete the function being requested on this session is temporarily unavailable.

VTAM Hint: A possible cause of this error is that the session needed by the host to complete the command is busy.

0852 Duplicate session activation request: Two session activation requests have been received with related identifiers. The relationship of the identifiers and the resultant action varies by request.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

VTAM Hint:

- If the RU is an ACTPU or ACTCDRM, it means that a session has already been activated for the subject destination-origin pair by a session activation request that carried a larger activation request identifier than the current request; the current request is refused.
- If the RU is an ACTLU, a session has already been activated for the subject destination-origin pair by a session activation request. The current request is denied.
- If the RU is a BIND, it means that the BIND request was received with the same session-instance identifier (in the structured subfield X'03' of the user data field) as an active session's; the current request is refused.

0001 Received a second BIND from a peripheral node PLU while the session is still in the activation process.

0002 A REQACTPU has been received by an SSCP that has already sent an ACTPU for the same PU.

0853 TERMINATE(Cleanup) required: The SSCP cannot process the termination request, as it requires cross-domain SSCP-SSCP services that are not available. (The corresponding SSCP-SSCP session is not active.) TERMINATE(Cleanup) is required.

0855 Route Setup procedure failure: An intermediate or destination node was unable to successfully complete the processing of a high-performance routing (HPR) Route Setup request or reply.

Bytes 2 and 3 following the sense code contain sense code specific information. Settings allowed are:

0000 No specific code applies.

0001 The destination LU is not ready to accept sessions.

0002 An unknown destination LU was specified in the request.

0003 A TG specified in the RSCV could not be activated.

0004 An unknown TG was specified in the RSCV.

0005 A TG specified in the RSCV has failed.

0006 A TG specified in the RSCV was not activated as an HPR TG.

0007 An intermediate node had insufficient storage to activate a TG specified in the RSCV.

0008 The receiving node had insufficient storage to process the route setup request.

0009 The route setup request was received over a TG that was not activated as an HPR TG.

000A A VR within a composite network node is inoperative.

000B The receiving node does not support HPR protocols.

000C The receiving node does not support the HPR transport option.

000D The Route Setup request or reply could not be forwarded over the TG in the FID2 format because its size was greater than the TG's maximum BTU size.

000E The value of the Current Hop Count field of the RSCV received in a Route Setup request exceeded the value of the Destination Hop Index field in the request (for example, the Route Setup request appeared to have passed the destination node.)

000F The Route Setup request completed unsuccessfully. The Route Setup reply was not received in the allotted time (as determined by the IOPURGE start option).

0020 The intended destination was not able to perform the RTP function (for example, it does not support the RTP transport tower). When a negative route setup reply with this sense code passes through an RTP-capable intermediate node, the intermediate node attempts to become the new destination and perform the RTP function.

VTAM Hint: This might be encountered due to an error in the definition of an activate-on-demand switched link, which was dialed as the result of the route setup request. If the link was predefined as HPR capable, but the partner node does not support HPR (or does not wish to support HPR protocols on the designated link), the route setup will fail when the link fails to activate as an HPR-capable link.

This should not lead to a failure to set up the session, but might lead to the use of normal APPN intermediate session routing instead of HPR.

0856 SSCP-SSCP session lost: Carried in the sense data field in a NOTIFY (third-party notification vector, X'03') or -RSP(INIT_OTHER) sent to an ILU to indicate that the activation of the LU-LU session is uncertain because the SSCP(ILU)-SSCP(OLU) session has been lost. (Another sense code, X'0842', is used when it is known that the LU-LU session activation cannot be completed.)

0857 SSCP-LU Session Not Active: The SSCP-LU session, required for the processing of a request, is not active; for example, in processing REQECHO, the SSCP did not have an active session with the target LU named in the REQECHO RU.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

VTAM Hint: The primary logical unit (PLU) or secondary logical unit (SLU) is not available.

0001 The SSCP-SLU session is in the process of being reactivated.

0002 The SSCP-PLU session is inactive.

VTAM Hint: For a USERVAR, an APPL or CDRSC definition with the same name as the USERVAR was found and was not active.

0003 The SSCP-SLU session is inactive.

VTAM Hint: For independent logical units, the independent logical unit is inactive.

0004 The SSCP-PLU session is in the process of being reactivated.

0005 The SSCP lost connectivity with the PLU after the LU-LU session was started, and has no other way to learn that the session has ended; the SSCP either never had a session to a gateway node in the LU-LU session path, or had previously lost connectivity to it.

0006 The SSCP lost connectivity with the SLU after the LU-LU session was started, and has no other way to learn that the session has ended; the SSCP either never had a session to a gateway node in the LU-LU session path, or had previously lost connectivity to it.

0007 The selected ALS for the OLU is not in a state permitting LU-LU sessions to be established using it. The condition is detected when the session request (BFINIT) was received, but, when the request was processed, the ALS was no longer in an active state. The session request is rejected.

0008 The selected ALS for the DLU is not in a state permitting LU-LU sessions to be established using it. The condition is detected when the session request was being processed in the DLU domain and the ALS selected for the DLU is no longer in an active state. The session request is rejected.

0858 SSCP-SSCP session activation rejected.

0000 No specific code applies.

0001 An SSCP rejected a received ACTCDRM attempting to restart a session that terminated as a result of an operator-initiated nondisruptive deactivation request.

VTAM Hint: This is not an error condition. The ACTCDRM was rejected because the SSCP that was deactivated is at a prior level of VTAM.

0859 REQECHO data-length error: The specified length of data to be echoed (in REQECHO) violates the maximum RU size limit for the target LU.

085A Specific server exception: an architecturally defined or customer-defined server that is sensitive to data object contents has detected an exception.

085B Unknown resource name: the identified resource, required to complete the requested Unit-Of-Work, is not known to the SNA node.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 Unknown server name. When this SNA report code is used in an SNA condition report, it is accompanied by a supplemental report containing the server name.

0002 Unknown agent.

0003 The clock identifier specified in an MS Set Clock major vector is unknown to the receiver.

0004 The timing source name specified in an MS Set Clock major vector is unknown to the receiver.

0005 The agent unit-of-work correlator referred to by an MS Cancel major vector is unknown to the receiver, or represents a unit of work already completed.

085C System exception: the node experiences an exception condition within a resident system or subsystem that inhibits subsequent processing by the SNA component.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 The exception is identifiable as a system-related problem.

0002 The exception is identifiable as a permanent system-related problem.

085D The MU_id could not be accepted in the MU_id registry.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 The MU_id is a duplicate. When this SNA-Report-Code is used in an SNA_Condition_Report, it is accompanied by three supplemental-reports that identify information about the receiver's MU_id registry: supplemental-report 1 contains the lowest MU_id the receiver would accept; supplemental-report 2 contains the highest MU_id the receiver would accept; supplemental-report 3 contains the time stamp of the receiver's MU_id registry.

0002 The MU_id value is greater than expected. When this SNA-Report-Code is used in an SNA_Condition_Report, it is accompanied by three supplemental-reports that identify information about the receiver's MU_id registry: supplemental-report 1 contains the lowest MU_id the receiver would accept; supplemental-report 2 contains the highest MU_id the receiver would accept; supplemental-report 3 contains the time stamp of the receiver's MU_id registry.

0003 A temporary condition prevents acceptance of the MU_id.

0004 A permanent condition prevents acceptance of the MU_id.

0005 The MU_id registry is not initialized.

085E Operator intervention.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 The operator has suspended the transmission of the message unit.

0002 The operator has purged the message unit.

0860 Function not supported—continue session: The function requested is not supported; the function may have been specified by a request code or some other field, control character, or graphic character in an RU.

nnnn Bytes 2 and 3 contain a 2-byte binary count that indexes (zero-origin) the first byte in which an error was detected. This sense code is used to request that the session continue, thereby ignoring the error.

0861 Invalid COS name: The class-of-service (COS) name, either specified by the ILU or generated by the SSCP of the SLU from the mode table is not in the “COS name to VR identifier list” table used by the SSCP of the PLU.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 COS name was generated by the SSCP.

VTAM Hint: If this sense code is displayed in message IST663I, and message IST264I follows, this may indicate that an incorrect COS table is referenced. The NetView program also has a COS table, and if this error occurs, the NetView program library was concatenated in front of the VTAM library causing the wrong table selection. See the section on common subarea network problems, Chapter 1, “Diagnosing VTAM Problems: Where to Begin” in *VTAM Diagnosis* for more information about this problem.

0001 COS name was generated by the ILU.

0002 The COS name generated by the type 2.1 CP local to, or the type 2.1 NNCP server for, the ILU is not in the COS name definition table.

0003 The CDINIT request or response contains a session initiation control vector that has class-of-service (COS) name fields that have not been properly specified. A virtual route list could not be found associated with the COS name.

0862 Medium presentation space recovery: An error has occurred on the current presentation space. Recovery consists of restarting at the top of the current presentation space. The sequence number returned is of the RU, in effect, at the top of the current presentation space.

nnnn Bytes 2 and 3 following the sense code contain the byte offset from the beginning of the RU to the first byte of the RU that is displayed at the top of the current presentation space.

0863 Referenced local character set identifier (LCID) not found: A referenced character set does not exist.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

hnnn Where *h*≥8; that is, the high-order bit in byte 2 is set to 1. The 15 low-order bits of bytes 2 and 3 contain a binary count that indexes (zero-origin) the first byte of the field found to be in error.

0864 Function terminated abnormally: The conversation was terminated abnormally. Other terminations may occur after repeated re-executions; the request sender is responsible for detecting such a loop.

VTAM Hint: Sense codes in the X'0864nnnn' range should not be used with APPCCMD CONTROL=SEND,QUALIFY=ERROR,TYPE=USER unless followed by an APPCCMD CONTROL=DEALLOCATE macro. These codes indicate to the receiver that deallocation is occurring.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 For LU 6.2, Premature Conversation Termination: The conversation is terminated abnormally; for example, the transaction program may have issued a DEALLOCATE_ABEND verb, or the program may have terminated (normally or abnormally) without explicitly terminating the conversation. This sense data is sent only in FMH-7 or UNBIND.

For LU 6.2 half-duplex conversations, this sense data is sent only in FMH-7 or indicated in UNBIND.

For LU 6.2 full-duplex conversations, this sense data is also sent in the negative response that precedes an FMH-7, when there is a chain to respond to. The sense data in the negative response gives advance notice to the transaction program (in the form of an error return code) that an ERP message is forthcoming. For this error, the ERP message will contain the same sense data value used in the negative response.

For non-LU 6.2, no additional information is specified.

0001 System Logic Error—No Retry: A system logic error has been detected. No retry of the conversation should be attempted. This sense data is sent only in FMH-7 or UNBIND.

For LU 6.2 half-duplex conversations, this sense data is sent only in FMH-7 or indicated in UNBIND.

For LU 6.2 full-duplex conversations, this sense data is also sent in the negative response that precedes an FMH-7, when there is a chain to respond to. The sense data in the negative response gives advance notice to the transaction program (in the form of an error return code) that an ERP message is forthcoming. For this error, the ERP message will contain the same sense data value used in the negative response.

0002 Excessive Elapsed Time—No Retry: Excessive time has elapsed while waiting for a required action or event. For example, a transaction program has failed to issue a conversation-related protocol boundary verb. No retry of the conversation should be attempted. This sense data is sent in UNBIND when there is no chain to respond to; otherwise, it is sent in FMH-7.

For LU 6.2 half-duplex conversations, this sense data is sent in UNBIND when there is no chain to respond to; otherwise, it is sent in FMH-7.

For LU 6.2 full-duplex conversations, this sense data is also sent in the negative response that precedes an FMH-7. The sense data in the negative response gives advance notice to the transaction program (in the form of an error return code) that an ERP message is forthcoming. For this error, the ERP message will contain the same sense data value used in the negative response.

0003 Allocation Error Message Forthcoming: An error has been detected in a received Attach request, resulting in a rejection of the Attach. The sense data value that indicates the reason for rejection will be specified in a forthcoming FMH-7.

This sense data is sent in the negative response that precedes an allocation error FMH-7 for an LU 6.2 full-duplex conversation. The negative response gives advance notice to the transaction program (in the form of an error return code) that an ERP message is forthcoming.

Note: The phrases following the sense data are symbolic return codes provided to a full-duplex transaction program when a negative response with sense data is received by the LU. (See *SNA Transaction Programmer's Reference Manual for LU 6.2* for full-duplex verbs and possible return codes.)

Sense Data	Return Code
08640000	ERROR_INDICATION (with a subcode of DEALLOCATE_ABEND_PROG)
08640001	ERROR_INDICATION (with a subcode of DEALLOCATE_ABEND_SVC)
08640002	ERROR_INDICATION (with a subcode of DEALLOCATE_ABEND_TIMER)
08640003	ERROR_INDICATION (with a subcode of ALLOCATION_ERROR)

0867 Sync event response: Indicates a required negative response to an (RQE,CD) synchronizing request.

0868 No panels loaded: Referenced format not found because no panels are loaded for the display.

0869 Panel not loaded: The referenced panel is not loaded for the display.

086A Subfield key invalid: A subfield key in an MS subvector was not valid in the conditions under which it was processed.

nnmm Byte 2 following the sense code contains the subvector key (*nn*) of the subvector containing the unrecognized subfield, and byte 3 contains the unidentified subfield key (*mm*).

086B Subfield value invalid: A value in a subfield within an MS major vector is invalid for the receiver.

nnmm Byte 2 following the sense code contains the subvector key (*nn*) of the subvector containing the subfield with the invalid value, and byte 3 contains the subfield key (*mm*) of the subfield with the invalid value.

Note: See sense code X'0870' for the case in which the invalid value occurs in an unformatted subvector, that is, one not containing subfields with keys and lengths, or in the unformatted portion of a partially formatted subvector.

6991 ATM dial information does not indicate ATMSVC or SHARE/EXCLUSIVE.

VTAM Hint: A possible cause of this error is that the values ATMSVC or SHARE or EXCLUSIVE might be missing or could be specified incorrectly on the DLCADDR operand (subfield 1) on the following definition statements in the following major nodes:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs).

Refer to “DLCADDR” in the XCA major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node. Refer to “DLCADDR” in the switched major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

6997 ATM traffic description is not valid.

VTAM Hint: A possible cause of this error is that the best effort indicator, cell rates, and traffic management options might be missing or could be specified incorrectly on the DLCADDR operand (subfield 7) on the following definition statements in the following major nodes:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs).

Refer to “DLCADDR” in the XCA major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node. Refer to “DLCADDR” in the switched major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

6998 ATM quality of service (QoS) class is not valid.

VTAM Hint: A possible cause of this error is that the quality of service (QoS) class might be missing or could be specified incorrectly on the DLCADDR operand (subfield 8) on the following definition statements in the following major nodes:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs).

Refer to “DLCADDR” in the XCA major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node. Refer to “DLCADDR” in the switched major node in the *VTAM Resource Definition Reference* for information

about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

6999 ATM transit network selection (TNS) identifier is not a valid length.

VTAM Hint: A possible cause of this error is that the carrier identification code might be missing or could be specified incorrectly on the DLCADDR operand (subfield 9) on the following definition statements in the following major nodes:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs).

Refer to “DLCADDR” in the XCA major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node. Refer to “DLCADDR” in the switched major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

69A5 ATM addresses are not a valid length or type.

VTAM Hint: A possible cause of this error is that the ATM address or addresses might be missing or could be specified incorrectly on the DLCADDR operand (subfield 21) on the following definition statements in the following major nodes:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs).

Refer to “DLCADDR” in the XCA major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node. Refer to “DLCADDR” in the switched major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

69C3 ATM bearer capabilities are not specified or are specified incorrectly.

VTAM Hint: A possible cause of this error is that the ATM bearer capabilities are not specified or are specified incorrectly on the DLCADDR operand (subfield 51) on the following definition statements in the following major nodes:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs).

Refer to “DLCADDR” in the XCA major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node. Refer to “DLCADDR” in the switched major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

69CD ATM adaptation layer is not specified or is specified incorrectly.

VTAM Hint: A possible cause of this error is that the ATM adaptation layer is not specified or is specified incorrectly on the DLCADDR operand (subfield 61) on the following definition statements in the following major nodes:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs).

Refer to "DLCADDR" in the XCA major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node. Refer to "DLCADDR" in the switched major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

086C Required Control Vector or Subvector Missing: One or more control vectors or MS subvectors that are required by the receiver to perform some function are missing from the received message, or are not present in the required position.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

nn00 Byte 2 following the sense code contains the key (nn) of one of the control vectors or subvectors that is missing, or improperly positioned. Byte 3 is reserved (00).

Note: See the X'080C0006' sense data for the case in which the major vector key is recognized but a subvector representing the function to be performed cannot be identified.

0400 Subvector X'04' not first.

0800 Reported on destination prefix (X'08') subvector not present.

0900 Reported on destination location (X'09') subvector not present.

0B00 Reported on destination suffix (X'0B') subvector not present.

2100 Required focal point identification (X'21') subvector not present. Already found either X'61', X'63', or X'E1' subvector.

4400 Second CV in TDU was not a CV44.

4600 CV46 not present.

7D00 Report code (X'7D') subvector not present.

8000 First CV in TDU was not a GVC280.

8100 Origin location name (X'81') subvector not present.

8200 Destination location name (X'82') subvector not present.

9000 Flags (X'90') subvector not present.

086D Required Subfield Missing: A control vector or MS subvector lacks one or more subfield keys that are required by the receiver to perform the function requested.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

nnmm Byte 2 following the sense code contains the key (nn) of the subvector or control vector lacking a required subfield, and byte 3 contains the subfield key (mm) of a missing subfield.

0901 NETID (X'01') subfield of the reported on destination location (X'09') subvector not present.

0902 NAU (X'02') subfield of the reported on destination location (X'09') subvector not present.

2101 Focal point identification (X'21') subvector is missing the MS_category subfield (X'01').

2102 Focal point identification (X'21') subvector is missing the flags subfield (X'02').

2110 Focal point identification (X'21') subvector is missing the FP Netid subfield (X'10').

2111 Focal point identification (X'21') subvector is missing the FP NAU name subfield (X'11').

2112 Focal point identification (X'21') subvector is missing the FP application program name subfield (X'12').

2120 Focal point identification (X'21') subvector is missing the backup FP Netid subfield (X'20') when either the backup FP NAU name (X'21') subfield or the backup FP application program name (X'22') subfield was found.

2121 Focal point identification (X'21') subvector is missing the backup FP NAU name subfield (X'21') when the backup FP Netid (X'20') subfield is present.

2122 Focal point identification (X'21') subvector is missing the backup FP application program (X'22') subfield when the backup FP Netid (X'20') subfield and the backup FP NAU name (X'21') subfield are present.

4580 Node characteristics (X'45') control vector is missing the node type and status subfield (X'80').

4680 TG descriptor (X'46') control vector is missing the TG identifier subfield (X'80').

6240 Focal point authorization reply (X'62') subvector missing current FP CP-name subfield (X'40') when required for the authorization request rejected (X'20') subfield or the authorization revoked (X'30') subfield.

6241 Focal point authorization reply (X'62') subvector missing current FP application program subfield (X'41') when required for the authorization request rejected (X'20') subfield or the authorization revoked (X'30') subfield.

6991 ATM dial information indicating ATMSVC or the type of SVC that can be used is not specified.

VTAM Hint: A possible cause of this error is that the DLCADDR operand (subfield 1) on the following definition statements in the following major nodes is not coded:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs).

6997 ATM traffic description is not specified.

VTAM Hint: A possible cause of this error is that the DLCADDR operand (subfield 7) on the following definition statements in the following major nodes is not coded:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs).

69A5 No ATM dial information is specified when a dial operation is attempted through a native ATM network.

VTAM Hint: A possible cause of this error is that the DLCADDR operand (subfield 21) on the following definition statements in the following major nodes is not coded:

- GROUP definition statement in the XCA major node (TGs to connection networks)

- PATH definition statement in the switched major node (TGs over SVCs).

8101 NETID (X'01') subfield of the origin location name (X'81') subvector not present.

8102 NAU name (X'02') subfield of the origin location name (X'81') subvector not present.

8103 MS application program name (X'03') subfield of the origin location name (X'81') subvector not present.

8201 NETID (X'01') subfield of the destination location name (X'82') subvector not present.

8202 NAU name (X'02') subfield of the destination location name (X'82') subvector not present.

8203 MS application program name (X'03') subfield of the destination location name (X'82') subvector not present.

086E Invalid subvector combination: Two or more subvectors, each permissible by itself, are present in a combination that is not allowed.

nnmm Bytes 2 and 3 following the sense code contain the subvector keys (*nn*) and (*mm*) of two of the subvectors that should not be jointly present.

086F Length error: A length field within an MS major vector is invalid, or two or more length fields are incompatible.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 The MS major vector length is incompatible with the RU length.

VTAM Information: If your CMIP application program receives this sense code with error code 817, your CMIP request or response buffer is too large. This error causes the association to end.

VTAM Hint: The CMIP application program can avoid this problem by building smaller CMIP requests and replies.

0002 The sum of the MS subvector lengths is incompatible with the MS major vector length.

0007 The length field of an MDS_MU is incompatible with the sum of the lengths of the imbedded GDS variables or an invalid length was found in an imbedded structure (or GDS variable).

0008 The length field of a CP-MSU is incompatible with the sum of the lengths of the imbedded structures.

VTAM Information: If you are using CMIP services, this error causes the association to end.

000A The length field of a Route Setup GDS variable is incompatible with the sum of the lengths of the imbedded structures.

000B The sum of the control vector lengths in an RU or XID is incompatible with the length of the RU or XID.

2103 The sum of the subfield lengths in the focal point identification (X'21') subvector incompatible with the length of the subvector.

2106 One or more of the subfields in focal point identification (X'21') subvector has an invalid length field.

8103 The sum of the subfield lengths in the origin location name (X'81') subvector is incompatible with the length of the subvector.

8106 The origin location name (X'81') subvector of the MDS routing information (X'1311') GDS variable contains an invalid subfield length. (This is specified only if the sum of the subfield lengths is compatible with the subvector length).

8203 The sum of the subfield lengths in the destination name (X'82') subvector is incompatible with the length of the subvector.

8206 The destination location name (X'82') subvector of the MDS routing information (X'1311') GDS variable contains an invalid subfield length. (This is specified only if the sum of the subfield lengths is compatible with the subvector length).

9005 The flags (X'90') subvector length is invalid in the MDS routing information (X'1311') GDS variable. (The length is not 5).

***nn*03** The sum of the subfield lengths in an MS subvector is incompatible with the subvector length. Byte 2 following the sense code contains the subvector key.

***nn*05** MS subvector length invalid. Byte 2 following the sense code contains the relevant subvector key (*nn*). (This is specified only if the sum of the subvector lengths is compatible with the major vector length.)

***nn*06** Subfield length invalid. Byte 2 following the sense code contains the subvector key (*nn*) of the MS subvector containing the invalid subfield length. (This is specified only if the sum of the subfield lengths is compatible with the subvector length.)

***nn*09** The sum of the subfield lengths in a control vector is incompatible with the control vector length. Byte 2 following the sense code contains the control vector key.

***nn*0C** The length field of a control vector in an RU or XID is invalid. Byte 2 following the sense code contains the control vector key.

0870 Unformatted Subvector Value Invalid: A value in an unformatted MS subvector, or in an unformatted portion of a partially formatted MS subvector, is invalid.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

nnxx Byte 2 following the sense code contains the subvector key (nn) of the MS subvector containing the invalid value. Byte 3 contains a one-byte binary count that indexes the first byte in which the invalid value falls. The indexing is zero-origin, from the beginning of the subvector.

Note: See sense code X'086B' for the case in which the invalid value occurs in a formatted MS subvector, that is, one containing subfields with keys and lengths, or in the formatted portion of a partially formatted subvector.

8106 Invalid subfield length in origin location name (X'81') subvector. NETID is not a valid length (1-8 characters).

8206 Invalid subfield length in destination location name (X'82') subvector. NETID is not a valid length (1-8 characters).

9002 Flags (X'90') subvector contains invalid setting for MDS message type.

9003 Flags (X'90') subvector contains an invalid flag setting.

0871 Read partition state error: A read partition structured field was received while the display was in the retry state.

0872 Orderly deactivation refused: An NC_DACTVR(Orderly) request has been received, but sessions are assigned to the VR and it will not be deactivated.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 An NC_DACTVR (orderly) request has been received, but sessions are assigned to the VR and it will not be deactivated.

0001 An MS major vector specifying orderly deactivation of the receiving node has been received, but sessions are active and their implied deactivation is not allowed; the requested activation will not proceed.

0002 An MS major vector specifying deactivation of the receiving node has been received, but the receiver cannot determine if sessions are active; the requested activation will not proceed.

0873 Virtual route not defined: No ERN is designated to support this VRN.

0874 ER not in a valid state: The ER supporting the requested VR is not in a state allowing VR activation.

0875 Incorrect or undefined explicit route requested: The reverse ERNs specified in the NC_ACTVR do not contain the ERN defined to be used for the VR requested, or the ERN designated to be used for the VR is not defined.

0876 Nonreversible explicit route requested: The ERN used by the NC_ACTVR does not use the same sequence of transmission groups (in reverse order) as the ERN that should be used for the RSP(NC_ACTVR).

0877 Resource mismatch: The receiver of a request has detected a mismatch between two of the following: (1) its definition of an affected resource, (2) the actual configuration, and (3) the definition of the resource as implied in the request.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 Link defined as switched is nonswitched: A link defined to an ACTLINK receiver as being switched was found to be nonswitched during the activation attempt.

0002 Link defined as SDLC is non-SDLC: A link defined to an ACTLINK receiver as being SDLC was found to be non-SDLC during the activation attempt.

0003 Link defined as having automatic connect-out capability does not: A link defined to an ACTLINK receiver as having automatic connect-out capability was found to lack it during the activation attempt.

0004 ACTLINK received for a resource other than a link: An ACTLINK was received that resolved to a local device address representing a device other than a link.

0005 Link defined as X.21 is not X.21.

0006 Link defined as LPDA-capable is configured in NRZI mode.

0007 A request that is allowed only for a primary link station was received for a link station that is defined to the receiver as secondary.

0008 A request for link problem determination for modems was received for a link that is defined to the receiver as not supporting link problem determination for modems.

0009 A request for link problem determination for modems was received for a link that is defined to the receiver as a supporting link, but no problem determination support for modems was found on the link.

000A A request that is allowed only for a nonswitched link was received for a link that is defined to the receiver as switched.

000B A request that is allowed only for a link with a modem not using the multiplexed links feature was received for a link that is defined to the receiver as having a modem using the multiplexed links feature.

000C Resource definition mismatch for modems: A request that is allowed only for a link with a nontailed modem was received for a link that is defined to the receiver as having a tailed modem.

000D The sending SSCP and the receiving type 4 node having conflicting system definitions. A BIND has been received for an SLU that contains an incorrect SLU address. The LU address in the BIND is a primary address. The LU address cannot be used for a secondary role on a new session.

000E The sending SSCP and the receiving type 4 node have conflicting system definitions. A BIND has been received for an independent LU, but the LU specified is not in a type 2.1 node.

000F The sending SSCP and the receiving type 4 node have conflicting system definitions. The SSCP owner is the same as the SSCP sending the nonactivation CONTACT PIU but the PU is not a type 2.1. The CONTACT is for a type 2.1 node, but the PU is not defined as type 2.1 to the receiver.

0010 The BFCLEANUP is for an independent LU, but the LU specified is not an independent LU.

0011 The subarea address portion of an addressed LU is not equal to the subarea address of the type 4 node. The LU is not in the same subarea as the type 4 node.

0012 If the BFCLEANUP is for a resource that is not a BF LU, the request will be rejected. This is a situation where the function is not supported by the target resource. It can be caused by a SYSDEF mismatch between the type 4 node and the SSCP.

0013 The network ID field in the BIND SLU name is not equal to the network ID of the boundary function, or the SLU name field is not equal to the LU name field in the boundary function control block for the LU.

0014 The LU specified in the FNA is not associated with the PU specified in the FNA; that is, an LU address (byte 7–*n*) is not associated with the PU target address specified.

0015 BFCINIT name mismatch: The BIND cannot be built from the BFCINIT because the NQ PLU name does not match. The session activation is rejected by the boundary function with a BFTERM.

0016 Invalid target address: Either:

1. The PU with which the specified LUs are to be associated is not type 1 or type 2; that is, the SSCP attempts to add an LU to a PU, but the boundary function has defined that PU as a type 4.
2. The SSCP sent an RNAA assignment type X'0' or X'5' with a PU or LU specified instead of a link. This is caused by a definition mismatch.

0017 MAXSUBA required for pre-ENA address assignment: If MAXSUBA is not specified and an RNAA requesting a pre-ENA address is received, the RNAA is rejected.

0018 An RNAA type 4 was received requesting an auxiliary address on a dependent LU.

001A The target LU specified in a BFCLEANUP or BFCINIT is not associated with the same link station that is associated with the session indicated in the URC control vector.

0019 Multiple sets of dial information are specified for a native ATM call when only one set is allowed.

VTAM Hint: A possible cause of this error is that more than one DLCADDR

operand (subfield 1 or 21) is specified on the following definition statements in the following major nodes:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs).

0026 A connection over a native ATM SVC cannot be established because the TG is not defined to support APPN and HPR.

VTAM Hint: A possible cause of this error is that an incorrect value or values are coded on a PU definition statement in a switched major node that defines an APPN TG over a native ATM SVC. These incorrect values could be on the HPR, CONNTYPE, or PUTYPE operands, which must specify HPR=YES, CONNTYPE=APPN, and PUTYPE=2 for native ATM connections. Any other values coded on these operands cause a connection failure.

001B The target link station specified in a BFCLEANUP is not the same link station as the session indicated in the URC control vector.

001C Resource definition mismatch for BFCINIT: The sending SSCP and the receiving type 4 node have conflicting system definition. A BFCINIT has been received for an LU address that is currently being used by an active LU-LU session. The LU address is primary on this already active session. The LU address cannot be used for a secondary role on a new session.

001D The LU address in the BFCINIT is a secondary address; the BFCINIT is rejected.

001E The subject LU specified in the BFSESSINFO RU is not defined to the SSCP as an independent LU; this is a mismatch between the SSCP and the BF.

001F A dependent LU is attached to a PU that indicates ACTPU is to be suppressed; the SSCP cannot activate the LU because ACTLU is not supported.

VTAM Hint:

The PU sent an XID that had the ACTPU suppression bit turned on. You need to reconfigure the PU to correct the error.

0020 A peripheral node supporting independent LUs has attached (using a nonswitched link) to a type 2 PU that cannot have independent LU sessions through it. The SSCP activation request received for one of these independent LUs has failed.

0021 An RNAA(Add) was received by the boundary function for a resource defined at system definition time, which is not allowed.

VTAM Hint:

- A physical connection must exist for a resource if you are attempting to use dynamic reconfiguration. For more information on dynamic reconfiguration, see the *VTAM Network Implementation Guide*.
- This error can occur for a physical unit if a network address has been specified on the ADDR operand of the PU definition statement, but there is no physical connection for the resource. For more information on the ADDR operand, see the *VTAM Resource Definition Reference*

0022 The link for which ACTLINK was issued is a S/370* channel that has been defined for connections only to a type 2.1 node. However, the SSCP that sent ACTLINK had previously indicated it does not support type 2.1 connections.

0023 Modem test support cannot be changed. The RNAA or SETCV containing the SDLC Secondary Station (X'03') or the Extended SDLC Secondary Station (X'43') control vector is rejected.

0024 The data mode cannot be changed. The RNAA or SETCV containing the SDLC Secondary Station (X'03') or the Extended SDLC Secondary Station (X'43') control vector is rejected.

0025 The receiving node is unable to process a BIND for the LU type specified for the given LU name.

0027 A link connection request for a nonempty active link connection configuration was received by the management services element; the active link connection configuration of the DLC element is empty; that is, it has no link connection components present.

0028 An RNAA(Move) was received for an adjacent link station (ALS), and the TO and FROM links were neither both primary nor both secondary.

0029 The RU refers to a resource, and the sender and receiver disagree about its status. One considers it a static resource, the other a dynamic resource.

002A A session cannot be activated because the node does not support segment generation and the maximum link BTU size is too small to satisfy a requirement on the minimum send RU size as defined for the session mode.

002B A session cannot be activated because the node does not support segment reassembly and the maximum link BTU size is too small to satisfy a requirement on the minimum receive RU size as defined for the session mode.

002C BFSESSINFO was received reporting a subject LU in another network, or BFINIT was received with a NETID specified for the PLU which was not the same as the NETID of the ALS (XNETALS=YES) or the receiving SSCP (XNETALS=NO).

002D BFSESSINFO was received for an (independent) subject LU, but the reported LU is considered by the receiver as a dependent LU.

002E BFSESSINFO was received reporting a dynamic subject LU that the receiver considers to be located under a different adjacent link station (ALS) than that reported in the BFSESSINFO. The SSCP will attempt to correct this configuration mismatch.

002F BFSESSINFO was received reporting a subject LU that the receiver considers to be located under a different adjacent link station (ALS) than that reported in the BFSESSINFO. The SSCP cannot correct this configuration mismatch.

0030 BFSESSINFO was received for a subject LU, but the receiver has the address associated with a different LU, which it considers to be static.

0031 BFSESSINFO was received for a subject LU, but the receiver has the address associated with anything other than a static LU or cross-domain resource.

0032 BFSESSINFO was received for an LU. The subject LU is verified, but, for a given session, either the partner LU is reported as the primary and the receiver does not consider that LU to be primary-capable, or the partner LU is reported as the secondary and the receiver does not consider that LU to be secondary-capable.

0033 Upon receipt of BFSESSINFO, the receiver considers the control block associated with a partner LU to be a cross-domain resource that is not active or an application that is not active.

0034 Upon receipt of BFSESSINFO, the receiver considers the control block associated with a partner LU to be neither an LU, cross-domain resource, nor an application.

0035 A network address was returned in RSP(RNAA) that the receiver believes is already associated with a different resource.

0036 BFSESSINFO was received containing an invalid adjacent link station (ALS) address. For example, the ALS does not represent a type 2.1 node.

0037 BFSESSINFO was received for a subject LU, where the secondary address specified in the BFSESSINFO does not match the secondary address the SSCP believes is associated with the LU.

0038 The subject LU specified in the BFSESSINFO RU is not defined to the SSCP as an LU or a cross-domain resource.

0039 A request that is valid only for a switched subarea link was received for a link that is not subarea-capable.

003A A request that is valid only for a nonswitched subarea link was received for a subarea dial link.

003B An RNAA (add) was received for an LU; however an LU with the same name but a different local address already exists under the specified ALS.

0041 Takeover processing completed, but the SSCP did not receive a BFSESSINFO for a resource that the SSCP believed to be a static, independent LU.

0042 A BFINIT sent by the boundary was processed by the SSCP and the PLU resource is not owned by this SSCP. This is probably the result of a TAKEOVER and GIVEBACK occurring before the BFINIT was processed by the SSCP. This may also be caused by a definition error for the PLU.

0043 A request was received for a nonswitched resource that is valid only for a switched resource.

0044 X.21 dial and auto-call capability not present—resource mismatch.

0045 A session request was received and the NETID for the resource does not match that of the adjacent link station providing service for the resource.

VTAM Hint: When a VTAM host has a type 2.1 connection to a gateway NCP (XNETALS=YES is specified), a different VTAM host must own the type 5 connection to the NCP.

0046 A CONNOUT was received indicating the sender and receiver have a system-definition mismatch: the CONNOUT Connection Type field specified a nonswitched link, but the receiver does not define the affected node as a T2.1 node on a nonswitched link or as one that supports XID3 exchange.

VTAM Hint: This sense code can be displayed in a VTAM message but is set by another product. It may be issued by NCP. See *NCP, SSP, and EP Messages and Codes* for a description of sense codes set by NCP.

0047 A session request or BFSESSINFO request was received and the network ID for the OLU or the subject LU does not match that of the adjacent link station providing service for the resource.

0048 The DLU is an independent LU but the selected boundary function is not independent LU capable.

0049 A BFSESSINFO request was received but the subject resource is not active.

0050 The element address of an intra-FRSE PVC segment subport specified in a SETCV resides on the same frame-relay port as another subport within a subport set.

0051 The maximum frame size in the system-definition differs for any two partners in an intra-FRSE PVC segment subport set specified in a SETCV.

0052 Adjacent frame-relay equipment management protocols are not supported on either of the frame-relay ports for the primary or its backup subport specified in the SETCV for the intra-FRSE PVC segment subport set.

VTAM Hint: A possible cause of this error is that there is a conflict in the coding of the PU definition and the FRSESET definition.

A backup PU has been coded in the FRSESET definition statement, but either this backup PU or its corresponding primary PU was coded on a line that has LMI=NO coded.

In order to have backup, the primary and backup PUs must be defined on lines whose link-station subport supports local management interface (LMI) protocol (LMI=ANSI or LMI=CCITT coded on the first PU definition statement under the LINE definition statement). For information on the LMI keyword, see the *NCP, SSP, and EP Resource Definition Reference*.

0053 A node identifies itself as a extended border node for some sessions but claims not to be a extended border node for other sessions.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product.

0054 SETCV was received to define an intra-FRSE segment subport set between subports that are incompatible; one of the subports does not support alternate physical paths.

0055 SETCV was received to define an intra-FRSE segment subport set between subports that are incompatible; one of the subports is on an outboard DLC and the other is not on an outboard DLC.

0056 A CPSVRMGR session cannot be established over a LEN connection that is not of type TCP.

0878 Insufficient storage: The storage resource required for a data format is not available.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 CONNOUT contained more dial digits than can be stored by the receiving product.

0879 Storage medium error: A permanent error has occurred involving a storage medium.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 Disk I/O error.

0002 I/O error: Load module and dump/re-IPL switches not saved to disk.

0003 I/O error: Automatic dump switches not saved to disk.

087A Format processing error: A processing error occurred during data formatting.

087B Resource unknown: The request contains a session key that does not identify a session known to some gateway node; for example, a session activation request arrives at a gateway node after it has released the address transform for the intended session.

087C SSCP-PU session not active: A gateway SSCP-PU session that is needed to establish an address transform for the intended cross-network LU-LU session was not active, or the gateway node is not defined.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

Bytes 2 and 3 contain sense-code-specific information that indicates the specific reason for not rerouting the request.

0000 No specific code applies.

VTAM Hint: A possible cause of this error is that the SSCP-PU session is not active on the DLU side.

0001 An SSCP in the session setup path for an LU-LU session has lost connectivity with a gateway node traversed by the session, and has no other way to learn that the session has ended. An intermediate SSCP sends this sense data to one adjacent SSCP when it had previously lost connectivity with the other adjacent SSCP on the same session setup path. An endpoint SSCP sends this sense data to its adjacent SSCP when it had previously lost connectivity to a dependent LU or the boundary function of an independent LU.

0002 The SSCP lost connectivity with the boundary function of an independent PLU after the LU-LU session was started, and has no other way to learn that the session has ended; the SSCP either never had a session to a gateway node in the LU-LU session path, or had previously lost connectivity to it.

0003 The SSCP lost connectivity with the boundary function of an independent SLU after the LU-LU session was started, and has no other way to learn that the session has ended; the SSCP either never had a session to a gateway node in the LU-LU session path, or had previously lost connectivity to it.

087D Session services path error: A session-services request cannot be rerouted along a path of SSCP-SSCP sessions. This capability is required, for example, to set up a cross-network LU-LU session.

Bytes 2 and 3 contain sense-code-specific information that indicates the specific reason for not rerouting the request.

0000 No specific code applies.

VTAM Hint: A possible cause of this sense code is an error in the CDRM definition.

0001 An SSCP has attempted unsuccessfully to reroute a session services request to its destination via one or more adjacent SSCPs; this value is sent by a gateway SSCP or a nongateway SSCP when it has exhausted trial-and-error rerouting.

Note: This code is used when SSCP rerouting fails completely. The remaining codes are used for failures to reroute to a particular SSCP. For example, they are associated with specific SSCPs when information about a rerouting failure is displayed in the node that was trying to reroute.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

VTAM Hint: Possible causes of this error include, but are not limited to, the following:

- VTAM knows which node owns the LU but is not able to route a directed search to that node to verify the availability of the LU. If messages IST894I and IST895I are issued and indicate that one of the adjacent SSCPs was ISTAPNCP with a failure sense of 087F0001, this is probably the reason for the error.

  Verify that a valid search path exists. This can be CP-CP sessions and/or a subarea path. One possible cause of the problem is the absence of a CP-CP session between two nodes that share an active CP-CP capable link. If this is the case, take one of the following actions:

  – Reactivate the CP-CP session.

  – Deactivate the link and reactivate it as a link that is not CP-CP capable so that topology and routing services will know that it is no longer available for use in directed search routing.

- There is no SSCP-SSCP session.
- The half-session control block (HSCB) count is too low in the NCP to handle the number of sessions. A possible solution to this problem is to code a larger value on the ADDSESS keyword of the BUILD definition statement and regen.
- Both sides are using the same SSCP name.

0002 An SSCP is unable to reroute a session services request because a necessary routing table is not available. This means that there is no adjacent SSCP table corresponding to the rerouting key in the resource identifier control vector. The receiver of this value will, if possible, try rerouting to another SSCP.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0003 This sense code is set in either of these two cases:

1. A CDINIT is received from an ADJSSCP (OLU), and the CDRM statement for the ADJSSCP (OLU) does not allow this SSCP to build a dynamic CDRSC (CDRSC=REQ).
2. An SSCP (OLU) or SSCP (INT) built a dynamic CDRSC for the DLU, but the ADJSSCP (DLU) selected does not allow this SSCP to build a dynamic CDRSC.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0004 Session services path error: Conflict in gateway capabilities support.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0005 An SSCP is unable to use the gateway node specified in CDINIT because that gateway node cannot allocate an address transform for the intended cross-network LU-LU session.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0006 An SSCP is able to use only a subset of the alternate gateway nodes available to it. However, for the subset that it can use, none can provide the needed alias address pair.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0007 An SSCP is unable to reroute a session services request. One of the session partners was defined as a real CDRSC, as well as a CDRSC without netid. This is not allowed.

0008 The adjacent SSCP does not support the requested CDINIT function (for example, notification of resource availability or XRF).

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0009 Invalid network address: NCP returned an address that was already in use for a different session. The Initiate request cannot be rerouted.

000A An SSCP is unable to reroute a session services request because the request has been routed through the same SSCP twice.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

VTAM Hint: This error can occur during an attempt to take over a switched connection because a connection-network-capable control point (CP) on the connection network does not have a complete system definition. See the section on common APPN problems, Chapter 1, “Diagnosing VTAM Problems: Where to Begin” in *VTAM Diagnosis* for more information about this session takeover problem.

000B The DLU specified in the CDINIT is unknown to the receiving SSCP, and the receiving SSCP cannot reroute the CDINIT.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

000D An SSCP has purged a session services request because the adjacent SSCP did not respond to the request within a specified installation-defined time limit.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

VTAM Hint: A possible cause of this error is that the response from the CDINIT sent toward the DLU has not been received during the operator specified time interval. The CDINIT timed out, and a negative CDINIT response is assumed.

000E A Locate search request was limited because a prior search had determined that the subject target resource was not currently accessible and the search delay thresholds had not yet been met.

VTAM Hint: The resource was not found. A Locate search request was limited because a prior search had determined that the subject target resource was not currently reachable (a valid search reduction entry exists).

087E SSCP visit count exceeds limit: The SSCP visit count specified in the session services request—CDINIT, INIT_OTHER_CD, or DSRLST—has been decremented to 0. The session services request has been routed through an excessive number of SSCPs. (The SSCPs are not necessarily distinct.)

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

087F Session Services Path Error: A session services request cannot be rerouted into an APPN-subarea network.

Bytes 2 and 3 contain sense-code-specific information that indicates the specific reason for not rerouting the request.

0000 No specific code applies.

0001 A Locate/CD-Initiate reply, indicating Resubmit on Directed Search, was received after a directed search had been performed in response to a previous Locate/CD-Initiate reply.

0002 Duplicate or invalid search request received.

0003 A subarea search was not routed into an APPN network because a requested function was not supported by the APPN-subarea interchange node.

0004 An APPN search was not routed into a subarea network because a “search of subarea” was not permitted.

0005 A subarea search was not routed into an APPN network because the request originated in the APPN network containing this node and the APPN network is capable of executing a broadcast search.

0006 Subarea search not routed into APPN network because a required component was not available.

0007 This sense data value is generated when an interchange node receives a Locate/CD-Initiate request from an APPN network that contains a control vector X'5D' (subfield X'81') and does not route to SSCPs in the network specified in that control vector because its Disjoint Network indicator is not set.

0881 ACTCDRM failure—REQACTCDRM sent: An SSCP-SSCP session-activation request, ACTCDRM, cannot be rerouted to a gateway SSCP because, at some gateway PU, the necessary transform is not complete and the gateway PU has sent REQACTCDRM to the gateway SSCP.

0884 ACTCDRM failure—no REQACTCDRM sent: An SSCP-SSCP session activation request, ACTCDRM, cannot be rerouted to the destination SSCP because, at some gateway node PU, the necessary transform is not complete and REQACTCDRM cannot be sent to the destination SSCP because the gateway SSCP-PU session is not active or the intended SSCP session partner does not provide gateway services.

0885 Same-Network routing not supported: The requested function cannot be executed, because the SSCP will not reroute a request within its subnetwork. A CDINIT request has been received across a dynamic subarea interconnect gateway route from another node in this subnetwork or across a gateway node; or a CDINIT request has been received from another node in this subnetwork or through a gateway node that needs to be rerouted to another node in this subnetwork across a dynamic subarea interconnect gateway route. This error most likely results from a network configuration problem in which a node has been defined to have dynamic subarea interconnect gateway VRs and nondynamic subarea interconnect gateway VRs within the same subnetwork.

0886 Subnetwork rerouting not supported: An SSCP received a session services request—CDINIT, INIT_OTHER_CD, NOTIFY (vector key=X'01'), or DSRLST—from an SSCP in its subnetwork that, if rerouted, would not cross a subnetwork boundary. The SSCP does not support rerouting within a subnetwork.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0887 Dequeue retry unsuccessful—session remains queued: The SSCP cannot successfully honor a CDINIT(Dequeue) request. The request specifies “leave on queue if dequeue-retry is unsuccessful.” The SSCP has left the queued session on its queue.

0888 Name conflict: A name specified in an RU is unknown, or is known and does not have the required capabilities, or is a duplicate resource for the specified resource type. When a name conflict is detected, further name checking ceases; multiple name conflicts are not reported or detected.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

VTAM Hint: Sense code 0888000*n* may be issued when an attempt to establish a session fails in an intermediate VTAM along the session setup path. This error may occur because the intermediate VTAM that set the sense code is operating with NQNMODE=NAME or is a pre-V4 VTAM. Therefore, the intermediate VTAM cannot define multiple resources with the same name even though the network identifiers are different.

Change the intermediate domain to operate with NQNMODE=NQNAME to allow definition of multiple resources with the same name and different network identifiers, or reroute the session through another path.

0000 No specific code applies.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0001 The specified DLU real network name is known, but identifies a resource that is not LU-LU session capable.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

VTAM Hint: A possible cause of this error is a duplicate resource in the same network.

0002 The specified DLU alias network name is known, but identifies a resource that is not LU-LU session capable.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0003 The specified OLU real network name is known, but identifies a resource that is not LU-LU session capable.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0004 The specified OLU alias network name is known, but identifies a resource that is not LU-LU session capable.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0005 Name translation was invalid; that is, a different LU name was returned with the same network ID as the original LU name.

0006 The specified DLU real network name is known, but is a duplicate resource.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

VTAM Hint: Possible causes of this error include, but are not limited to, the following:

- The same resource has been defined in the network in more than one location.
- If the origin LU is in APPN, this sense code can be issued if the destination resource has moved and the new location is not known throughout the network. This situation will be corrected when the origin LU receives this sense code and discards the incorrect information.
- If a LEN connection is being used, a possible cause of this error is that the network ID predefined for the cross-domain resource is the same as the network of the LEN connection but is not the same as the network where the resource resides. To fix this, move the CDRSC definition statement for the resource before any NETWORK definition statements so that the resource does not have a predefined network ID.

0007 The specified DLU alias network name is known, but is a duplicate resource.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

VTAM Hint: A possible cause of this error is that VTAM is unable to determine the DLU real name for a TR_REPLY RU. Ensure that the network ID is correct. To determine where the error occurred, look in the alias translation table for the alias name and the real name associated with it. Find the name that was given as the DLU alias name in IST664I and try to determine what the actual resource is in this host.

Refer to the *VTAM Network Implementation Guide* for a description of alternatives to predefining cross-network destination logical units.

0008 The specified OLU real network name is known, but is a duplicate resource.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0009 The specified OLU alias network name is known, but is a duplicate resource.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

000A A predefined real resource name and a predefined alias resource name were found for the same resource.

000B A cross-network DLU name is defined as a shadow resource, but shadow resources are not supported for cross-network sessions.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

000C A cross-domain or cross-network DLU name matches an alternate application name. However, the alternate application name is not the real name of the resource. This is only allowable in a same-domain session.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

000D When processing a session initiation RU, an SSCP has found two different resource definitions for the OLU, one with the real OLU name and one with the alias OLU name.

000E When processing a session initiation RU, an SSCP has found two different resource definitions for the DLU, one with the real DLU name and one with the alias DLU name.

000F The specified DLU network name is defined as a generic resource. The session should be re-initiated using the name of an LU.

VTAM Hint: This sense code is issued in connection with generic resources and the centralized definition of cross-domain resources function.

For an overview of centralized definition of cross-domain resources and information about how to set up these definitions, refer to the *VTAM Network Implementation Guide*.

0010 The LU6.2 partner returned a name in the User Data field of its RSP(BIND) that differs from the name it returned in the User Data field of its RSP(BIND) for a previous BIND. Either the partner changed its name or name changes in the network have caused delivery of the latest BIND to a different partner.

VTAM Hint: Possible causes of this error include, but are not limited to, the following:

- The partner LU might have changed names or name changes in the network have caused delivery of the latest BIND to a different partner LU.
- Name manipulations in the network are inconsistent or the network is finding different targets for the same name on subsequent BINDS.
- A partner LU incorrectly using the sender's name might have caused a problem.

0011 The LU6.2 partner receiving a BIND carrying one specific target SLU name returned a name in the User Data field of its RSP(BIND) that is the same as it returned in response to a previous BIND carrying a different target SLU name.

VTAM Information: The partner LU name returned in the user data field of the BIND response was found in a VARIANT_NAME entry, but the SUPPLIED_ NAME entry used when the session was initiated indicates (by the associated name field) that no name associated has taken place. The name returned in the user data field of a BIND response found in a SUPPLIED_NAME LU entry is different from the SUPPLIED_NAME entry used in the setup of the session.

VTAM Hint: A possible cause of this error is that the name returned is identical to a name currently in an internal table as a name that has already been supplied by the application.

0012 A session initiation request is received from the partner LU containing a LUNAME found in an internal table, but with a different network qualifier.

VTAM Information: Name changes in the network have caused alteration of the network identifier.

VTAM Hint: Possible causes of this error include, but are not limited to, the following:

- The local LU does not support network-qualified names.
- A non-flat name space was detected where a flat name space is required.

0013 A border node received a topology database update (TDU) from a node within its local subnet containing the CP name of a node that is adjacent to the border node across an intersubnet TG.

0014 An excessive number of topology database updates (TDUs) have been processed for a resource.

0015 A generic name of a resource has been received when only the real name of the resource can be specified.

| **0016** The DLUR-specified network name is known, but is a duplicate resource.

0889 Transaction program error: The transaction program has detected an error.

This sense code is sent only in an FMH-7.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 Program error—no data truncation: The transaction program *sending* data detected an error but did not truncate a logical record.

Program error—purging: The transaction program *receiving* data detected an error. All remaining information, if any, that the receiving program had not yet received, and that the sending program had sent prior to being notified of the error, is discarded.

0001 Program error—data truncation: The transaction program *sending* data detected an error and truncated the logical record it was sending.

0100 Service transaction program error—no data truncation: The service transaction program *sending* data detected an error and did not truncate a logical record.

Service transaction program error—purging: The service transaction program *receiving* data detected an error. All remaining information, if any, that the receiving service transaction program had not yet received, and that the sending service transaction program had sent prior to being notified of the error, is discarded.

0101 Service transaction program error—data truncation: The service transaction program *sending* data detected an error and truncated the logical record it was sending.

088A Resource unavailable—NOTIFY forthcoming: The SSCP cannot satisfy the request because a required resource is temporarily unavailable. When the required resource becomes available, the NOTIFY NS keys X'07' or X'08' will be sent.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 SSCP-SSCP session not active: A SSCP-SSCP session required to reroute the cross-network request was not active.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0003 SSCP-LU session not active: The SSCP(DLU) is currently not in session with the DLU.

0004 LU session limit exceeded: The DLU is currently at its session limit and the requested session would cause the limit to be exceeded.

088B BB not accepted—BIS reply requested: Sent in response to a BB (either an LUSTAT bid or an Attach) to indicate that the receiver has sent a BIS request and wishes to terminate the session without processing any more conversations, but without sending an UNBIND. A BIS reply is requested so that the negative response sender may send a normal UNBIND. This sense code is sent only by LUs not supporting change-number-of-session protocols.

088C Missing control vector: The RU or XID did not contain a required control vector or subfield.

Bytes 2 and 3 following the sense code contain sense code-specific information.

***nn*yy** Byte 2 contains the key (*nn*) of the subject control vector and byte 3 (*yy*) contains the control vector's type or the missing subfield.

0E00 The route setup request did not contain required control vector X'0E'

0EF3 The name of the new PLU is missing from a third party initiated flow.

0EF4 A SLUINIT BIND was missing the PLU CP_NAME control vector X'0E'.

2600 The route setup request did not contain required control vector X'26'

2B00 RSCV control vector X'2B' for an APPN session was not provided, or the route setup request did not contain required control vector X'2B'.

2C00 The route setup request did not contain required control vector X'2C'.

2D00 The route setup request did not contain required control vector X'2D'.

3100 BIND image control vector X'31' missing.

3900 NCE instance ID control vector X'39' missing.

4680 Missing subvector X'80' on TG descriptor X'46'.

4581 Missing directory extensions subvector control vector X'4581'.

4683 Missing subvector X'83' on TG descriptor X'46'.

5F00 Control vector X'5F' missing.

6000 Control vector X'60' missing.

6380 Control vector X'63' crypto capabilities (control vector X'80') missing.

6500 Device characteristics control vector X'65' missing.

6700 The route setup request did not contain required control vector X'67'.

8000 Control vector X'80' missing.

8100 Control vector X'81' missing.

088D Duplicate network name: An SSCP has detected a violation of the requirement that network names used across multiple domains be unique within the multiple-domain network. For example, the SSCP(DLU) has detected that the OLU name received in CDINIT is currently also defined in the domain of the SSCP(DLU).

088E Capability mismatch: A network component detected a capability mismatch between different resources involved in the same network function. For example, an SSCP detects that an LU has been assigned a subarea address too large for one of the other resources involved in the session initiation to support.

Bytes 2 and 3 following the sense code contains sense-code-specific information.

0000 A resource encountered during LU-LU session initiation is not ENA-capable; the session initiation request may be rerouted.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0001 A resource encountered during LU-LU session initiation is not ENA-capable; the session initiation request should not be rerouted.

0002 An SSCP has requested a “pre-ENA compatible” SLU address for an SLU that already has an ENA address.

0003 The gateway node selected by the gateway SSCP from the gateway node list is not ENA-capable when an ENA-capable gateway node is required. Another gateway node may be tried.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0004 During a dynamic path update, the SSCP detected that the update contained a path with an explicit route (ER) number greater than 7 and the target node did not have extended subarea addressing capabilities. Therefore, the dynamic path update information for this destination subarea is not being sent to the target node.

0005 The session could not be established because a specified extended subarea address exceeded that allowed at a node along the selected session setup path. The gateway SSCP doing gateway node selection may retry the session setup by selecting another gateway node having a larger subarea address limit in the network containing the DLU.

VTAM Hint: This sense code is issued when there are incompatible ESA capabilities along the session setup path. The DLU direction subarea address is greater than the OLU direction capabilities.

0006 The session could not be established because a specified extended subarea address exceeded that allowed at a node along the selected session setup path. The gateway SSCP doing gateway node selection may retry the session setup by selecting another gateway node that uses a smaller subarea address in the network containing the DLU.

VTAM Hint: This sense code is issued when there are incompatible ESA capabilities along the session setup path. The OLU direction subarea address is greater than the DLU direction capabilities.

0007 During a dynamic path update, the SSCP detected that the update contained a path definition with a subarea address above 255 and that the target node did not support extended subarea addressing. Therefore, the dynamic path update information for this destination subarea is not being sent to the target node.

0008 The session could not be established because the dependent LU server detected an incompatibility between its capabilities and those of its dependent LU requester.

0009 The session could not be established because the dependent LU requester detected an incompatibility between its capabilities and those of its dependent LU server.

000A An attempt was made to establish a connection between a boundary function that does not support cross-subnetwork connections and a border node.

000B The extended border node indicator was set during XID exchange but both the border node and intersubnetwork extended session services support indicators were not set in the CP capabilities GDS variable.

000C There is an APPN subnetwork link mismatch. Two nodes may have a system definition mismatch or two nodes may already have a non-APPN subnetwork connection active and one attempts to activate an APPN subnetwork connection.

VTAM Hint: An attempt was made to activate two or more links between two nodes in which at least one of the links is defined as an APPN intersubnetwork link, but not all the links are defined as APPN intersubnetwork links. Determine what type of links should be defined between the two nodes in your network. Then modify the NATIVE option on the PU definition to reflect this.

000E Virtual-route-based transmission group does not support nonnative connections.

VTAM Information: VTAM sets this sense code when a virtual-route-based transmission group connection is requested between two adjacent nodes connected by a nonnative, type 2.1 connection. The request for the VRTG connection will fail. The SSCP-SSCP session will also fail.

000F An attempt was made to establish a CP-SVR pipe across a subnetwork boundary between a dependent LU server and a dependent LU requester with limited multi-subnetwork support.

088F XRF procedure error: A request was received for an XRF-active or XRF-backup session and was not acted on.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0003 A SWITCH request specifying a switch to the already existing state was received.

0004 A SWITCH request was received that was invalid.

0005 The SLU has received SWITCH (Conditional, to backup) and no current XRF-backup sessions exist that can replace this session (that is, become the XRF-active session).

0006 An INITIATE request for an XRF-backup session was received that allowed queuing. (XRF-backup and session queuing are mutually exclusive functions.)

0007 An initiation request for an XRF-backup session was received specifying an XRF-backup session, and the DLU does not support XRF sessions.

0008 An XRF-active BIND was received with a session correlation identifier that duplicates a session correlation identifier associated with an existing XRF session.

0009 An XRF-backup BIND was received for an LU that currently does not have an XRF session.

000A Cryptography not supported: An XRF BIND was received indicating cryptography. A cryptography key must be defined for the NCP session as well.

000B An initiation request for an XRF-backup session was received specifying an XRF-backup session, and the OLU does not support XRF sessions.

000F Invalid backup command.

0010 An XRF-backup BIND was received with a session correlation identifier that does not match the session correlation identifier associated with the existing XRF session with that LU.

0011 Cryptography information could not be obtained for the backup XRF session.

0012 An XRF-backup BIND associated with the existing XRF session supporting data compression was received that did not support compression.

0013 The existing session was negotiated using an extended BIND carrying the Length-Checked Compression (X'66') control vector, but the XRF-backup BIND is nonextended.

| **0014** The message authentication code level of the extended recovery facility (XRF) backup session does not match that of the XRF primary session.

| **0015** The NCP level did not support the MAC level with XRF.

0890 Search failure.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0010 Routing error during a directed search: A Locate GDS variable for a directed search was received by an intermediate NNCP and could not be successfully routed to the destination control point.

0020 Resource not found during a directed search: A Locate GDS variable for a directed search was received by the named destination CP and the search argument resource is not a local resource.

0021 Verification reduction could not be satisfied, but was required for the request. This sense code is returned when resource verification reduction cannot be satisfied for the DLU.

VTAM Hint: This sense code is set by the PLU's network node server when resource verification reduction could not be satisfied for a request initiated by the PLU control point to obtain the RSCV from the network node server.

0022 Destination of search not served by this CP.

0028 Resource not found, broadcast required: The resource was not found on a directed LOCATE/CDINIT search, and a restricted broadcast was executed at the destination and failed; a broadcast should be tried.

0030 Resource deleted, no broadcast required: A Locate GDS variable for a directed search was received by the named destination CP and the search argument resource has been deleted.

0036 Duplicate search to a subnetwork. This is an attempt to search a network previously reached by this search procedure. This condition indicates an attempt to loop back into a subnetwork through a different entry point.

0037 Unknown TG vectors to dependent LU requester. A resubmitted Located search for a dependent LU at its dependent LU requester was unsuccessful. This condition arises only after the dependent LU server has verified the existence of the dependent LU.

VTAM Hint: VTAM was unable to successfully locate the dependent LU requester (DLUR) node in order to obtain the necessary DLUR endpoint transmission group (TG) vectors. The current session setup will fail. Verify that connectivity exists between the node that issued the sense code and the DLUR node.

0038 Too many directed search subprocedures: A LOCATE exceeded the maximum height of the search tree; too many directed search subprocedures were tried; no retry.

0040 Resource not found during a broadcast search: A Locate GDS variable for a broadcast search was received by a CP that does not provide network services for the search argument resource and neither do any of the CPs searched in its broadcast subtree. This condition is detected by crossing search requests (a CP sends and receives a search request with the same PCID and the same search argument resource) or by a local search failure and all CPs in the broadcast subtree returning this sense data.

0048 Neutral Reply Received from an End Node: A Locate reply with no Found and no Extended Sense Data (X'35') control vector was received from an APPN end node.

0050 Quiesced CP: A CP in the broadcast search tree is in a quiescent state and, therefore, not receiving Locate GDS variables. This condition is detected when a CP in the search subtree is quiesced and no other CP in the subtree found the requested resource.

0060 Storage not available: A CP in the broadcast search tree does not have sufficient storage to participate in the search and no other CP in the search subtree found the requested resource.

0070 Session outage: A CP in the search tree has lost its CP-CP session with a CP that had been sent a Locate GDS variable and no reply had been received.

0080 Duplicate fully qualified PCID: A CP in the search tree detected a duplicate fully qualified PCID for a different session request from the session request that first used the fully qualified PCID.

0081 PCID Modifier Too Long: A PCID Modifier List was received that had a length greater than 10 bytes.

0082 PCID Modifier Space Exhausted: A PCID Modifier List was received that contained the maximum of 10 bytes. As the maximum list size has been reached, another list entry cannot be made that was longer than 10 bytes.

VTAM Hint:

This sense code is issued when a node determines that it may have to retry, resubmit, or redirect a search, but it cannot allocate a procedure-correlation identifier (PCID) Modifier slot, because all 20 half-byte slots have already been allocated. This indicates that the search has been exhausted (20 nodes have already allocated slots without finding the DLU). There is currently no recovery action architected or implemented to recover from this situation.

Any SSCP with VTAM V4R1 and above can generate this sense code.

The PCID Modifier slots differ from the SSCP visit count in that the SSCP visit count is decremented by every SSCP on the session setup path. The PCID Modifier slots

are not allocated by every SSCP, only those that may have to perform retried, resubmitted, or redirected searches.

0891 Invalid network ID (NETID).

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 PLU NETID not valid: The NETID of the PLU is not the same as that of the SSCP(PLU).

0002 NETID not valid: The NETID field in CONNOUT does not match the NETID defined in the link station receiving the CONNOUT.

0003 NETID not valid: The NETID field in the RNAA is not the same as the native NETID. There is a mismatch between the system definitions of the SSCP and the type 4 node.

0004 The Network Name control vector appended to the received XID3 does not contain a valid network ID. The network ID, preceding the CP name, must be greater than 0 and less than 8 bytes in length.

Alternatively, a network ID was received as an entry in a Register GDS variable without an accompanying resource name, resulting in an invalid resource name at the receiver; the entry was not registered.

0005 The Network Name control vector appended to the received XID3 does not contain a valid CP name. The CP name, following the network ID, must be greater than 0 and less than 8 bytes in length.

0006 Invalid NETID: The sender has deactivated CP-CP sessions with the adjacent nonnative CP because one of the following situations has occurred:

- Neither CP contains border node support (i.e., neither sets byte 9, bit 7 to 1 in the CP Capabilities GDS variable that it sends).
- One or both nodes defined the connection as native, which is not allowed if the network IDs are different.

VTAM Hint: If this sense code is displayed in message IST1280I, this probably indicates that CP-CP sessions were attempted between two network nodes in different networks. If a nonnative relationship is desired, ensure that BN=YES is coded to enable border node support. Also ensure that NATIVE=YES is not coded on a PU or ADJCP statement representing the partner node.

If a native relationship is desired, modify the VTAM start lists for the specific nodes so that both start lists specify the same network.

0007 Invalid NETID: Establishment of a switched link connection failed because the NETID of the destination PU was not equal to that of the requesting SSCP.

0008 Insufficient control blocks for dynamic network ID assignment. A CONNOUT specified a network ID that is not currently defined and sufficient control blocks are not available.

0009 The network ID specified in the VRID List (X'1B') control vector is invalid.

000A Invalid Network ID: the network ID in the Network Name control vector does not match the network ID of the target resource of the REQACTPU.

0892 Automatic network shutdown (ANS) has occurred.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 Session reset when ANS=STOP: The SSCP controlling the LU has been lost. The session will be terminated because ANS=STOP was specified for this LU.

0002 The session was in pending-active state when the SSCP failed. However, since ANS=CONT, LU-LU sessions would normally continue, but since the session was not completely set up, it was reset.

0003 XRF-backup session reset when ANS=STOP: The XRF-backup session was reset because ANS=STOP was specified.

0893 Takeover not complete.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 PLU lacking a control point, retry: The PLU is not currently receiving network services from a control point. The BIND is rejected because the session cannot be established. This sense data is returned by the boundary function of the PLU.

0002 SLU lacking a control point, retry: The SLU is not currently receiving network services from a control point. The BIND is rejected because the session cannot be established. This sense data is returned by the boundary function of the SLU.

0003 Sequence error: The SSCP should not send an RNAA for an independent LU until the takeover sequence is complete for the link station, that is, until all BFSESSINFOs for that LU have been received and accepted.

0894 Migration support error: The sender of the request is relying on migration support that is not available.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 BIND cannot be extended: A BIND that is not an LU 6.2 BIND was received and cannot be extended by the receiver.

0895 Control Vector Error: The RU or XID contained a control vector that was in error. Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

xxyy Byte 2 (xx) contains the key of the control vector first detected in error. If more than one control vector is in error, only the first erroneous one is reported. Byte 3 (yy) of the sense code specific data contains the (0-origin) byte offset of the error within the control vector.

0896 Control vector too long.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 Network name (X'0E') control vector is too long; the vector data portion is greater than 18 bytes long.

0897 System definition mismatch: The requested function is not supported by the receiver, or there is a mismatch between the sending and receiving system definitions.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 The BFCLEANUP specifies that it is for an independent LU, but the LU specified is not an independent LU. This also could be caused by a resource mismatch.

0002 The target LU is not in the same subarea as the type 4 node.

0003 The function is not supported by the target resource.

0004 Invalid SLU name: The network ID (if present) for the NS SLU name field is not equal to the network ID of the type 4 node, or the SLU name is not equal to the LU name field in the LUB.

0005 The LU address specified in the FNA is not associated with the PU target address specified in the FNA.

0006 The SSCP has no predefinition for an LU and does not support dynamic resource definition.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0007 The receiving SSCP has a different system-defined name for the SSCP(DLU) than the SSCP(DLU) name in the session initiation request.

VTAM Hint: In subarea, a possible cause of this error is that the CDRM definition statement in the OLU host for the DLU does not match what the DLU has coded for SSCPNAME in the VTAM start options.

0008 In a gateway with three gateway SSCPs, a gateway SSCP on the OLU side of the gateway was specified as having predesignated control in the CDINIT. In this configuration, only the middle gateway SSCP may have predesignated control.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0009 In a gateway with multiple gateway SSCPs, the gateway node assumes that one gateway is coded with GWCTL=ONLY. As a result, the gateway node receives gateway-control RUs from a different SSCP than the one it expects.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

VTAM Hint: A possible cause of this error is that the GWPATH definition specifies the wrong NCP name.

000A The PU of an independent PLU named in BFINIT does not have the same element address as the one in the ALS field of BFINIT.

000B An SSCP has detected a specification of gateway responsibility in the CDINIT request that is not consistent with its own definition. For example, an SSCP that has predesignated responsibility to control a gateway node specified in the CDINIT request sends this sense data when it receives the CDINIT from a session partner and the CDINIT indicates that the session partner also has predesignated responsibility for the gateway node; in this situation, a mismatch exists in the responsibilities of the SSCPs, because both cannot simultaneously have predesignated responsibility for the gateway node.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

000C The receiver is unable to interpret the DLU name.

000D Resource type not defined in receiver.

000F A gateway node has received route data for a cross-network session in a form that it does not support.

0010 An adjacent SSCP has the same SSCP name as the SSCP that owns the DLU but a different network identifier than the DLU.

0011 The subsystem LU received CINIT with an appended LU definition (X'2F') control vector, but cannot process that control vector.

0012 The receiving SSCP has a different system-defined name for the SSCP(OLU) than the SSCP(OLU) name in the session initiation request.

0013 The session request (CDINIT) has routed back to the SSCP(OLU) or an SSCP on the session setup path has the same name as the SSCP(OLU).

0014 The MOSS automatic IPL/dump switches are not set properly.

0015 The OLU is represented using a dynamically defined resource but the ALS selected to provide its services does not permit dynamic definitions. The condition is detected when a session initiation request is received for an independent LU and no predefinition is found for the OLU resource. The session initiation is rejected.

0016 The DLU is represented using a dynamically defined resource but the ALS selected to provide its services does not permit dynamic definitions. The condition is detected when a session initiation request is being processed for an independent destination LU and no predefinition is found for the DLU resource. The session initiation request is rejected.

VTAM Hint: You might need to change the CDRSC definition.

0017 The request was received for an independent LU over a specific ALS but that ALS is not defined to provide services for the subject LU. The condition is detected when a session initiation request is received and the ALS for which the request was received was not predefined to provide service for that independent LU. The session initiation request is rejected.

0018 Session Initiation Status Not Supported: A session initiation request was received that contained a session initiation status field invalid for the receiving node.

0019 The SSCP has received a CONTACTED or REQCONT containing an XID3 carrying an unrecognized CP name; the SSCP supports only predefined CP names.

001A The source or destination service access point address (SSAP or DSAP) in the logical link control protocol data unit of the XID information field for a token-ring LAN is unknown.

0898 Session reset: The XRF session is being reset.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 The XRF-active session has been reset because the XRF-backup PLU forced a takeover.

0002 XRF-backup hierarchical reset: The identified XRF-backup LU-LU session is being deactivated because the related XRF-active session terminated normally. The LU sending this sense data is resetting its half-session before receiving the response from the partner LU. (See UNBIND type X'12'.)

0003 XRF-active hierarchical reset: The identified XRF-active LU-LU session is being deactivated because the related XRF-backup session performed a forced takeover of this session (via SWITCH). The LU sending this sense data is resetting its half-session before receiving the response from the partner LU. (See UNBIND type X'13'.)

0899 Invalid address: An address modifying a control function is invalid, or outside the range allowed by the receiver.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0002 If the address requested in the RNAA is an existing address and an FNA has been received for this address, reject the RNAA.

0003 For a dynamic reconfiguration MOVE or REPLACE operation, the new LU local address specified in the RNAA is incompatible with the LU local address already specified in the control block. Both must be either zero or nonzero.

089A Invalid file or file not found: The requested file was not found, or was found to be an invalid file.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 Requested file not found.

0002 Duplicate load module—one with same name already on disk. The load module cannot be added.

0003 Unable to locate required associated object.

0004 Another load module on the MOSS disk has the same IPL time as the one specified for the load module in the MODIFY LOAD command.

089B Session correlation exception: The session correlation procedure detected an exceptional condition at the SLU.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 RUs out of order: A BIND request with the correlating fully qualified PCID control vector (X'5F') arrived before UNBIND (type X'02') was received for the correlated session. This sense data is sent in an UNBIND that terminates the correlated session.

0002 Correlator not found: A BIND request with the correlating fully-qualified control vector (X'5F') cannot be correlated to any previous session.

089C Duplicate session related identifier, invalid URC.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 The URC received in the BFINIT duplicates a URC for an outstanding session initiation attempt from the same BF.

089D Gateway node error detected during cross-network session initiation.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0001 The gateway node list used to select a gateway node to cross a network boundary is exhausted. This error can be caused by an element address mismatch.

VTAM Hint: A possible cause of this error is an element address mismatch between VTAM and NCP.

0003 RNAA has failed; another gateway node should be tried.

0004 Address conversion based on the subarea or element address split was unsuccessful.

0005 The gateway node selected by one gateway SSCP is not known to another gateway SSCP in the same gateway. This can be a system definition error in the gateway SSCP that does not recognize the gateway node.

0006 A gateway SSCP has found that a gateway node has assigned duplicate addresses.

089E Identified data object already exists.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0001 A request to create a new data object has failed because the identified data-object already exists at the target node.

0002 A request to replace a data object has failed because it specifies a to-be-deleted data object different from the to-be-stored data object; however, the to-be-stored data object already exists.

089F The node component required to satisfy a request is not currently available.

Bytes 2 and 3 following the sense code contain sense code-specific information.

0004 A session initiation has failed because a generic resource coupling facility is not available to do the necessary information update.

VTAM Hint: This sense code is issued when VTAM is unable to access or create information about a generic resource in the MVS coupling facility structure for one of the following reasons:

- The coupling facility structure storage is exhausted.
- VTAM does not have a connection to the coupling facility structure.
- VTAM received an unexpected response from MVS while attempting to access or create the information.

08A0 Session Reset: An LU or PU is resetting an LU-LU session.

Bytes 2 and 3 following the sense code contain sense code-specific information.

0000 No specific code applies.

0001 The LU is sending an UNBIND with a reason code of X'0A' (SSCP gone); the identified LU-LU session had to be deactivated because of a forced deactivation of the associated SSCP-PU or SSCP-LU session, for example, because of a DACTPU, DACTLU, or DISCONTACT.

0002 The LU or SCM is sending UNBIND with a reason code of X'0F' (cleanup).

0003 A gateway node is cleaning up the session because a gateway SSCP has directed the gateway node (via NOTIFY) to deactivate the session, for example, a session setup error or session takedown failure has occurred. The gateway node will send UNBIND with a reason code of X'11' (Gateway Node Cleanup).

0004 Reversed FRSN Values: The value in the Last FRSN Sent field is greater than the value in the Current FRSN field in a received TDU GDS variable (no retry). The CP will send an UNBIND with a reason code of X'0F' (Cleanup).

0005 TDU Sent Out of Order: The value in the Last FRSN Sent field of the current TDU GDS variable is less than the value of the Current FRSN field in the TDU GDS variable that immediately preceded it, or is greater than it and the receiver cannot store the out-of-sequence value (no retry). The CP will send an UNBIND with a reason code of X'0F' (Cleanup).

VTAM Hint: If this sense code is issued in the IST1097I message group (CP-CP sessions have been deactivated), it is likely that the topology database update (TDU) flowing between the two nodes has been lost. This is probably due to a storage depletion condition on either the sending or receiving end of the TDU flow.

If the CP-CP sessions do not come back up automatically, reactivate the CP-CP session by issuing VARY ACT,ID=*partner_cpname*,IDTYPE=CP. If VTAM is experiencing temporary storage allocation problems, you might want to wait for the condition to clear before attempting to restart the session.

When the CP-CP session is restarted, TDUs will be exchanged so that the missing information in the lost flow will be recovered.

0006 This sense code can be displayed in a VTAM message but is set by another product.

VTAM Hint: If this sense code is issued in the IST1097I message group (CP-CP sessions have been deactivated), it is likely that CM/2 is failing the CP-CP session because the flow reduction sequence number (FRSN) in the topology database update (TDU) sent by VTAM is higher than expected by CM/2. Perform the following steps:

1. Delete the entry for the adjacent node from the topology database by issuing the MODIFY TOPO command: F TOPO,ID=cpname,TYPE=FORCE. All links between VTAM and the partner node must be inactive before issuing the MODIFY TOPO command.
2. After deleting the node, reactivate the CP-CP session.

0007 DLUS-DLUR session deactivation (disruptive): LU-LU sessions for DLUR-supported dependent LUs should be reset

0008 DLUS-DLUR session deactivation (non-disruptive): LU-LU sessions for DLUR-supported dependent LUs should not be reset

0009 DLUS-DLUR session deactivation (non-disruptive): protocol violation detected (LU-LU sessions for DLUR-supported dependent LUs should not be reset)

000A DLUS-DLUR session deactivation (non-disruptive): DLUR should wait for DLUS reactivation of DLUS-DLUR session (LU-LU sessions for DLUR-supported dependent LUs should not be reset)

08A2 Resource active. The requested function must be performed on an inactive resource, but the resource is active.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 RNAA(MOVE) was received for an active resource.

08A3 Call security verification failed.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 The callee detected a password mismatch during call security verification.

08A4 Token-match exception: partial name matching is unsuccessful during the required find or store operation. The canonical identifier involved in the exception is reported in the FS server report.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 One or more must-match tokens were not specified.

0002 Specified token-match indicators yield multiple directory matches.

08A6 Object not found: an exception has occurred when the general server attempted to process the server object, but the server object could not be found.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 Server object not found.

08A8 Multiple-Domain Support Routing Exception: The MDS router in the reporting NAU is unable to perform the required routing for an MDS-MU.

When this SNA report code is used in an SNA condition report (X'1532') GDS variable, the destination NAU name is included in the Reported on Location Name (X'09') subvector and the destination MS application name is included in the Reported On Agent (X'04') subvector of the condition report.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 Destination NAU name unknown. Directory services could not locate the requested destination name.

0002 Directory services unavailable. No routing possible.

0003 MS application program name not recognized.

0004 Use of CPSVCMG session not permitted. The reporting network node has received an MDS-MU over a CPSVCMG session from another network node. These sessions are used for MDS-MUs only between a network node and its served end nodes.

0005 Function not supported by EN destination. The back-level end node destination does not support receipt of MS messages (reported by serving network node).

0006 Function not supported by destination. The back-level destination does not support receipt of MS messages other than MS Capabilities and Alert.

0007 Function not supported by serving NN. The serving network node of the end node destination does not support routing of MS messages (reported by network node performing routing).

0008 Function not supported by EN. The reporting end node has received an MDS-MU with a destination other than itself.

0009 Destination not supported by reporting NN. A network node has received an MDS-MU from another network node that cannot be routed. The destination is not the reporting network node itself nor is it one of the served end nodes.

If the MDS-MU was routed based on nonverified directory information (as indicated by the Routing verification indicator in the MDS Routing Information), the MDS-MU will be returned to the routing network node along with the SNA condition report.

000A Unrecoverable session failure. The MDS_SEND TP in the reporting node was unable to send the message because of an allocation error. Retries have been exhausted.

000B Unrecoverable TP failure in remote node. The MDS_SEND TP in the reporting node was unable to send the message because of a TP failure in a remote node. Retries have been exhausted.

000C MS Application program failure. The MDS router in the destination NAU is unable to communicate with the destination MS application program.

000D Unrecoverable TP failure in reporting node. The MDS router in the reporting node was unable to send the message because of a local TP failure.

000E Correlation error. An MDS-MU has been received that is not the first for a unit of work (First MDS Message indicator in the MDS Routing Information Message is 0), but the agent unit of work correlator is unknown (does not match any active MDS transaction). Also used to report the receipt of a duplicate correlator (MDS-MU with first MDS message indicator is 1, but the agent unit of work correlator matches one currently in use).

000F MS application program congestion. The MDS router in the destination NAU is unable to communicate with the destination MS application program because of local congestion (implementation buffer space for queuing additional MDS-MUs has been exhausted).

0011 MDS HPO not supported by MS application program. The destination MS application program does not support the use of the MDS high performance option.

0012 Unrecoverable failure of user-mode session. MDS has detected an error on a user-mode session (a user-mode session in this context is one with a mode name other than SNASVCMG or CPSVCMG). Retries have been exhausted. Application program data may have been lost.

0013 Session UNBIND notification. The last session to the indicated destination has been deactivated. Refer to product documentation for additional information.

08A9 Multiple-Domain Support Transaction Failure: The reporting MDS router or MS application program has detected a condition that has impacted an outstanding unit of work (identified by the agent unit of work correlator of the MDS error message).

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 Failure caused by outage of a CPSVCMG session.

0002 Failure caused by outage of an SNASVCMG session. All retries have been exhausted.

0003 Unit of work canceled by reporting MS application program. The unit of work has been canceled because of a timeout in the reporting MS application program.

VTAM Hint: For applications using the NetView LU 6.2 transport, the timeout value is determined by the SECONDS parameter on the transport send service, or the RCVREPLY value set by the DEFAULTS command.

0004 Unit of work canceled by reporting MDS Router. The unit of work has been canceled by a garbage-collection timeout in the reporting MDS router.

VTAM Hint: For applications using the NetView LU 6.2 transport, this sense code is returned if the timeout value for a request matches that set by MAXREPLY on the DEFAULTS command.

0005 MDS router internal failure. The unit of work has been canceled because of an internal failure in the reporting MDS router.

VTAM Hint: For applications using the NetView LU 6.2 transport, this sense code indicates that either the DSI6DST or DSIHPDST task is terminating, or that there was a problem with an internal NetView hashing routine.

0006 MS Application internal error. The unit of work has been canceled either because the reporting MS application program was terminated or because another application program served by it was terminated. The type of program termination (normal or abnormal) is not indicated.

0007 MS Application router re-initialization. The unit of work has been canceled by the reporting MDS router because of a re-initialization of the application-level router.

0008 OSI Transport Service MDS application standalone transport user disconnect.

VTAM Information: Either the association for a CMIP application program is ending normally or an idle association is being ended. This is not an error condition.

0009 The CMIP agent client has received an MDS Error Message for its transaction with the CMIP agent server.

08AA Required GDS variable missing: the MS multiple-domain support message unit (MDS MU) is missing a required GDS variable.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

nnnn Bytes 2 and 3 following the sense code contain the ID of the missing GDS variable.

1212 Control point management services unit X'1212' GDS variable is missing.

1310 DS MU header X'1310' GDS variable is missing.

1311 MDS routing information X'1311' GDS variable is missing.

1532 MDS SNA condition report X'1532' GDS variable is missing.

1549 MDS unit of work X'1549' GDS variable is missing.

80F0 MS capabilities X'80F0' MS major vector is missing.

08B2 Data transmission failure: the data transmission between an application program in an SNA MS entry point and an application program in a subentry point was incomplete, causing abnormal termination of the function.

Bytes 2 and 3 following the sense code contain sense code specific information. Settings allowed are:

0000 No specific code applies.

0001 A timeout has occurred while waiting for transmission of data between the two application programs. For example, a service processor has timed out while waiting to receive data from the main processor.

0002 A timeout has occurred while waiting for transmission of data between two applications.

08B5 Network Node Server Not Required: Sent by an APPN end node control point to a network node control point (1) to deactivate CP-CP sessions with the NNCP, or (2) to reject a CP-CP session BIND from the NNCP. The end node no longer requires network node services from the receiver.

Note: This sense data value is carried within the X'35' control vector on an UNBIND(Type = X'01') for case (1) above, or on an UNBIND(Type = X'FE') for case (2).

VTAM Hint: A possible cause of this error is that the Network Node Server for the CP-CP session attempt is not in the Network Node Server List.

08B6 CP-CP Sessions Not Supported: Sent by a network node control point to reject a CP-CP session BIND from another APPN control point; support for CP-CP sessions on that TG was removed since the time when the TG was first activated.

Note: This sense data value is carried within the X'35' control vector on an UNBIND(Type = X'01').

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0000 No specific code applies.

0001 During link activation on a switched link, it was discovered that the partner node does not support CP-CP sessions on this TG.

10XX (Request Error)

This category indicates that the RU was delivered to the intended NAU component, but could not be interpreted or processed. This condition represents a mismatch of NAU capabilities.

Category and modifier (in hexadecimal):

1001 RU data error: Data in the request RU is not acceptable to the receiving component; for example, a character code is not in the set supported, a formatted data field is not acceptable to presentation services, or a value specified in the length field (LL) of a structured field is not valid.

VTAM Hint: This code can also be issued if a required name in the request is omitted.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0001 The request contains a subarea address of 0 or a subarea address greater than the maximum subarea value within the specified or implied network.

VTAM Hint: A possible cause of this error is that a network address cannot be assigned to a dynamic application program when VTAM is trying to build that dynamic application program from a model application program definition.

0002 The network ID specified in the ACTPU is unknown, or is not valid on the link over which the ACTPU was received.

0003 Isolated pacing message format error: An incorrectly formatted isolated pacing message was received.

0005 An RNAA type 4 was received in which the local address field length is greater than 1. The implementation does not support a length other than 1.

0006 An RNAA type 4 was received in which the link station address field length is greater than 1. The implementation does not support a length other than 1.

0007 On BFCINIT the network name portion of the network-qualified name field has a format error.

0008 An invalid character code was found.

0009 The formatted data field is unacceptable to presentation services.

000A An invalid length field for a structured field was found.

000B The value in the name (PLU or SLU) length field is too great.

000C The value in the cryptography length field is too great.

000D The URC length field is invalid.

000E The control vector length field is inconsistent with the control vector data.

000F A PLU or SLU role specification encoding is invalid.

0010 The value in the user data length field in invalid.

0020 Too many session keys are present.

0021 A control vector or session key data is invalid.

0022 A BIND image in a session services RU is invalid.

0023 A device characteristics field is invalid.

0024 A BIND or +RSP(BIND) that was not for LU type 6.2 and not in extended format was received at an intermediate APPN network node. The session is terminated.

0026 The length of GDS variable within the request RU is invalid.

0027 A GDS variable within a Locate is invalid.

0030 Control vector ambiguity: The request contains two or more conflicting control vectors. Generally the two control vectors have the same key. However, there are cases where a new control vector key supersedes an old one. In this case, two control vectors with different keys but no other distinguishing data (such as network ID) could be ambiguous. An example is a SETCV to a gateway node with both a VR ID list control vector (control vector X'1B') and a route parameters control vector (control vector X'4E') for the same network.

0033 The name of the deciphering CP in a Cryptography (X'63') control vector does not match the name of the receiving CP(PLU).

0034 A topology data update was received across an APPN subnetwork link carrying topology information about an adjacent subnet.

VTAM Hint: Information that was not valid was received in a topology database update (TDU) over an APPN subnetwork link. This sense code is set only by a border node during the initial topology exchange after CP-CP sessions are established over an APPN subnetwork link. If the non-native node sends a TDU containing more topology information that its own X'44'/X'45' control vector pair, then the sense code is set. A dump from both nodes should be taken for problem determination.

0035 A logon command was entered using a format different from that specified at system-definition time for the USS table.

0036 The message authentication code received in the RU did not match the one generated by the receiver for that RU.

| **0037** The data manipulation header contained invalid data.

| **0038** The data manipulation header contained an invalid length.

hnnn Where *h*≥8; that is, the high-order bit in byte 2 is set to 1. The 15 low-order bits of bytes 2 and 3 contain a binary count that indexes (zero-origin) the first byte of the field found to be in error.

1002 RU length error: The request RU was too long or too short.

1003 Function not supported: The function requested is not supported. The function may have been specified by a formatted request code, a field in an RU, or a control character.

Note: 0001 and 0002 are also assigned for implementation-specific use; see implementation documentation for details of usage.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

VTAM Hint: If resources are not activating correctly when a new NCP is activated, either rename the new NCP or use another method to make sure that the old resource resolution table (RRT) is replaced with the new RRT.

0001 The half-session receiving the request did not perform the function because it is not capable of doing so. The requesting half-session requested a function that the receiver does not support, and the receiver did not specify that it was capable of supporting the function at session activation; consequently, there is an apparent mismatch of half-session capabilities.

Note: This is to cover a system error. For example, if the PU receiving a SETCV (vector key=X'15') is not a gateway PU; that is, if the PU did not indicate in the ACTPU response that it is a gateway PU, the PU reports to the SSCP that sent the SETCV that there is an apparent mismatch of half-session capabilities.

0002 The half-session receiving the request did not perform the function, though it is capable of doing so. The requesting half-session did not specify at session activation that it was capable of supporting the function; consequently, there is an apparent mismatch of half-session capabilities.

Note: This is to cover a system error. For example, if the SSCP sending a SETCV (vector key=X'15') is not known to the receiving PU as a gateway SSCP; that is, the SSCP did not indicate in ACTPU that it is a gateway SSCP, the PU reports a mismatch of capabilities.

0003 The component received an unsupported normal-flow DFC command.

0004 The component received an unsupported expedited-flow DFC command. For example, the LU 6.2 half-session may have received a SIGNAL RU when its local conversation style is full-duplex. (However, the half-session rejects the SIGNAL only if it is for the current bracket. Early SIGNALs are held for the correct bracket by saving the SIGNAL value until the correct BB arrives.)

0005 The component received a network control command during an LU-SSCP session.

0006 The component received an unsupported session control command during an LU-SSCP session.

0007 The component received an unsupported data flow control command with LU-SSCP session specified.

0008 Broadcast search with reservation: An NNCP received a broadcast search request with reservation.

0009 Initiate Type: The initiate type requested in the CDINIT GDS variable or INIT_OTHER_CD GDS variable is not supported at the receiver.

000A Session polarity: The session polarity requested in the CDINIT GDS variable is not supported at the receiver.

000B A BIND specifying delayed request mode was received from a non-6.2 type LU, but delayed request mode is not supported in the receiver.

000C A stand-alone BIND is received from a node that is served by an SSCP that does not support stand-alone BINDs.

000D The function identified in the request is not supported by the processing application transaction program.

0010 The RU is not known to session services.

0011 A session key is not supported.

0012 A control vector is not supported.

0014 Cryptography is not supported but a nonzero length was specified for the cryptography key.

0015 Queuing not supported for a controller session.

0016 Service parameter not supported. When this SNA report code is used in an SNA condition report, it is accompanied by a supplemental report identifying the service parameter triplet (or triplets) that was not supported.

0017 Service parameter level not supported. When this SNA report code is used in an SNA condition report, it is accompanied by a supplemental report identifying the service parameter triplet (or triplets) that was not supported.

0018 Destination-role function not supported. When this SNA report code is used in an SNA condition report, it is accompanied by a structure report identifying the structure and containing the contents that specified the unsupported function. Whenever the structure report is not sufficient to identify the unsupported functions, the supplemental report may also be present.

0019 All-role function not supported. When this SNA report code is used in an SNA condition report, it is accompanied by a structure report identifying the structure and containing the contents that specified the unsupported function. Whenever the structure report is not sufficient to identify the unsupported functions, the supplemental report may also be present.

001B Unable to initiate agent.

001C Function conflicts with Format Set 1 encodings. When this SNA report code is used in an SNA condition report, it is accompanied by a structure report identifying the structure and containing the contents that specified the conflicting function.

001F Multiple-destination traffic not supported. The reporting location is a specialized, end-only role implementation that supports single-destination traffic only.

0020 A session initiation request specified an OLU and DLU that are the same LU. An LU that does not use VTAM's LU 6.2 API cannot establish a session with itself.

0021 There is a mismatch between session initiation request type and LU type (independent or dependent). For example, a session initiation request other than BFINIT identifies an independent LU as a session partner.

VTAM Hint: Ensure that the PU name and CPNAME operand have unique names in the PU definition statement of the switched major node definition.

0023 A session initiation request requiring Extended Session Services NNS Support was received at an EN that does not have this service available to it.

0025 The component received a NOTIFY request whose type is not supported.

0027 LU type is not supported.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product. See the appropriate product-specific manual for further information.

0036 The network node server received a NOTIFY request whose type is not supported by the DLU.

0037 Request received is inappropriate for the receiving type of network addressable unit.

0039 A third-party-initiated session request specified an ILU (initiating LU) and a DLU (destination LU) that are the same LU. An application cannot initiate a third-party-initiated session to itself.

6002 The resource identified by the destination program name (DPN) is not supported.

6003 The resource identified by the primary resource name (PRN) is not supported.

Note: This sense code can also be used instead of sense code X'0826'.

1005 Parameter error: A parameter modifying a control function is invalid, or outside the range allowed by the receiver.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 For NMVT, the address type field in an SNA address list subvector does not match the address type required by the command subvector.

0003 Invalid number of element addresses requested.

0004 Invalid display type was requested.

0005 Invalid storage length for display type requested.

0006 Invalid storage address; out of specified range.

0007 The command in a request change control MS major vector is incompatible with the SNA/FS server instruction.

0010 A new backup focal point name was supplied when we are supposed to keep the current backup focal point information.

1006 Required field or parameter is missing.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

VTAM Information: When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

0001 One or more required COS names were omitted.

0002 A required name was omitted.

0003 A required network identifier was omitted.

0004 A required session key was omitted.

0005 A required control vector was omitted.

0006 A required subfield of a control vector was omitted.

0007 The TG number field was omitted.

0008 The specific ID (IDNUM) was omitted.

0009 A required GDS variable is missing.

1007 Category not supported: DFC, SC, NC, or FMD request was received by a half-session not supporting any requests in that category; or an NS request byte 0 was not set to a defined value, or byte 1 was not set to an NS category supported by the receiver.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 Invalid NS header received. An NS request byte 0 was not set to a defined value.

1008 Invalid FM header: The FM header was not understood or translatable by the receiver, or an FM header was expected but not present. For LU 6.2, this sense code is sent in FMH-7 or UNBIND.

The following table shows the usage of the allowed values by LU type.

Table 1-1. Usage of Hexadecimal 1008 Sense Code Specific Information by LU Type

Range	LU 1	LU 4	LU 6.1	LU 6.2
0801–0824	X	X		
0825	X			
0826–082A	X	X		
2001–200D	X	X		
200E	X	X	X	
200F–201C	X	X		
201D				X
4001–400E	X	X		
6000				X
6001,6004			X	
6005			X	X
6006–6008			X	
6009			X	X
600A			X	
600B			X	X
600C–6010			X	
6011–6034				X
6040			X	X
6041				X
6046				X
6047				X
6048				X
C000–C003			X	

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0801 The function code parameters are invalid.

0803 The forms functions cannot be performed.

0805 The copy function cannot be performed.

0806 Compaction table outside the supported set: The number of master characters is not within the valid range.

0807 The PDIR (peripheral data information record) identifier is invalid.

0808 The printer train function cannot be performed.

0809 The FCB (forms control block) load function cannot be performed.

080A The FCB (forms control block) load function is not supported.

080B The compaction table name is invalid.

080C The ACCESS is invalid.

080D The RECLEN is invalid.

080E The NUMRECS is invalid.

080F The data set is in use.

0810 The data set cannot be found.

0811 The password is invalid.

0812 The function is not allowed for the destination or for the data set.

0813 The record is too long.

0814 The data set is full.

0815 The RECID is invalid.

0817 The VOLID format is invalid.

0818 The maximum number of logical records per chain is exceeded.

0819 The data set exists.

081A No space is available.

081B The VOLID is invalid.

081C The DSACCESS is invalid.

081D The RECTYPE is invalid **or** the data set cannot be found.

081E The resolution space is insufficient.

081F The key technique is invalid.

0820 The key displacement is invalid.

0821 The key is invalid.

0822 There is an invalid N (number of records).

0823 The KEYIND is invalid.

0824 The SERID is invalid.

0825 Disk error: An error was detected while reading from, or writing on, the disk.

0826 The RECID format is invalid.

0827 The password has not been supplied.

0828 The record ID has not been supplied.

0829 The volume ID has not been supplied.

082A The PGMNAME is invalid.

2001 The destination (active) is invalid.

2002 The destination (inactive) is invalid.

2003 The destination (suspended) is invalid.

2004 The suspend-resume sequence is invalid.

2005 There has been an interruption level violation.

2006 The resume properties are invalid.

2007 The destination is not available.

2008 The end sequence is invalid.

2009 The FM header length is invalid.

200A Invalid field setting: The reserved field is set to 1 or the setting is not defined.

200B Invalid destination: The destination does not exist.

200C The ERCL is invalid.

200D The Data stream profile (DST) is invalid.

200E Invalid concatenation indicator: The concatenation indicator is **on**, but concatenation is not allowed.

200F FM data is not allowed for the header.

2010 The FM header set specified in the BIND has been violated.

2014 The FM header was not sent concatenated.

2019 The stack reference indicator (SRI) is invalid.

201A The CMI modification could not be accepted.

201B The CPI modification could not be accepted.

201C The ECRL modification could not be accepted.

201D FM header and associated data mismatch: The FM header indicated that associated data would or would not follow (for example, FM header 7 followed by log data, or FM header 5 followed by program-initialization parameters), but this indication was in error; or a previously received RU (for example, -RSP(X'0846')) implied that an FM header would follow, but none was received.

4001 Invalid FM header type for this LU: The type of the FM header is other than 5, 7, or 12.

4002 The FMH code is invalid.

4003 Compression is not supported.

4004 Compaction is not supported.

4005 Basic exchange is not supported.

4006 Only basic exchange is supported.

4007 The medium is not supported.

4008 There has been a code selection compression violation.

4009 FMHC is not supported.

400A Demand select is not supported.

400B DSNAME is not supported.

400C The media subaddress field is invalid.

400D There are insufficient resources to perform the requested function.

400E Data stream profile (DSP) select is not supported.

6000 FM header length not correct: The value in the FM header length field differs from the sum of the lengths of the subfields of the FM header.

6001 The deblocking algorithm (DBA) is invalid.

6004 The queue name length is invalid.

6005 Access security information length field not correct: The value in the access security information length field differs from the sum of the lengths of the access security information subfields.

6006 The data stream profile (DSP) is invalid.

6007 The FMH-7 is not preceded by a negative response carrying sense code X'0846'.

6008 The attach access code is invalid.

6009 Invalid parameter length: The field that specifies the length of fixed-length parameters has an invalid setting.

600A This is not the first FMH-5, the interchange unit type is not the same as the old, and the interchange unit end indicator is **off**.

600B Unrecognized FM header command code: The partner LU received an FM header command code that it does not recognize. For LU 6.2, this sense data is sent only in FMH-7.

600C A null sequence field is required.

600D User-to-user program transition is not allowed.

600E User to non-SNA defined program transition is not allowed.

600F The FMH-5 reset attached program (RAP) was not sent properly.

6010 The FMH-5 reset attached program (RAP) was sent with an inactive attach register.

6011 Invalid logical unit of work (LUW): The LUW length field (in a Compare States GDS variable or an FMH-5) is incorrect, or the length field is invalid, or a LUW ID is not present but is required by the setting of the synchronization level field.

6021 Transaction program name not recognized: The FMH-5 Attach command specifies a transaction program name that the receiver does not recognize. This sense data is sent only in FMH-7.

6031 PIP not allowed: The FMH-5 Attach command specifies that program initialization parameter (PIP) data is present, but the receiver does not support PIP data for the specified transaction program. This sense data is sent only in FMH-7.

6032 PIP not specified correctly: The FMH-5 Attach command specifies a transaction program name that requires program initialization parameter (PIP) data, and either the FMH-5 specifies PIP data is not present or the number of PIP subfields present does not agree with the number required for the program. This sense data is sent only in FMH-7.

6034 Conversation type mismatch: The FMH-5 Attach command specifies a conversation type that the receiver does not support for the specified transaction program. This sense data is sent only in FMH-7.

6040 Invalid attach parameter: A parameter in the FMH-5 Attach command conflicts with the statement of LU capability previously provided in the BIND negotiation.

6041 Synchronization level not supported: The FMH-5 Attach command specifies a synchronization level that the receiver does not support for the specified transaction program. This sense data is sent only in FMH-7.

6042 Reconnection not supported: The FMH-5 Attach command specifies reconnection support, but the receiver does not support reconnection for the specified transaction program. This sense data is sent only in FMH-7.

6043 Unable to reconnect transaction program—no retry: The FMH-5 Reconnect command specifies the conversation correlator of a transaction program to which the receiver cannot reconnect. The condition is not temporary. This sense data is sent only in FMH-7.

6044 Unable to reconnect transaction program—retry allowed: The FMH-5 Reconnect command specifies the conversation correlator of a transaction program to which the receiver cannot reconnect. The condition is temporary. This sense data is sent only in FMH-7.

6046 An SNA/DS transaction program is unable to allocate a conversation with an SNA/DS partner.

6047 An SNA/DS transaction program in conversation with an adjacent SNA/DS transaction program has detected from LU 6.2 PS a return code of resource_failure.

6048 An SNA/DS transaction program in conversation with an adjacent SNA/DS transaction program has detected from LU 6.2 PS a return code of deallocate type (abend).

6050 For the receiver, one of the following conditions exists:

- Extended security bit is on and GDS variable X'12F6' does not immediately follow the attach FMH-5 and PIP data.
- Extended security bit is off and GDS variable X'12F6' follows the attach FMH-5.

For the sender, one of the following conditions exist:

- The partner responded to the attach with any data other than an FMH7 or an Authenticator Reply (GDS id X'12F8').
- The Authenticator Reply subfield (X'FF85') is absent.
- A subfield occurs more than once.

6051 One of the following conditions exist:

- The length of the GDS variable is incorrect. The length must be greater than zero and must equal to (*length_field_value — 2*).
- An unidentified subfield is present in the GDS variable.
- The total length of a subfield is not equal to the value in its length field minus 2.

6053 The length of the GDS variable is incorrect. It is the responsibility of the application to ensure that the GDS variable length is correct. For the sender, the length must be greater than or equal to two and must equal the value in the length field.

6054 For the receiver, the extended security bit is on and either old FMH-5 security bits are on or the old access security information fields are present. For the sender, the authenticator reply fails the checks applied by the security manager. (Purge ID from Signed On To list.)

6056 The partner responded to the attach with any data other than an FMH7 or an Authentication Token (GDS variable X'12F6').

6057 The Authentication Token GDS requested that additional token exchanges be handled via the Distributed Authentication Service TP. However, the FMH5 did not contain a valid conversation correlator.

C000 The header is not supported.

C001 The header length is invalid.

C002 There has been a logical message services block-level error.

C003 There is a version ID mismatch.

1009 Format group not selected: No format group was selected before issuing a present absolute or present relative format structured field to a display.

100A Unknown user name.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 The specified operations management served application name is not registered with operations management. The operations management served application name is specified in the DAN X'50' subfield of the name list X'06' subvector which is contained in the R and TI X'154D'.

100B Format exception.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 Required structure absent. When this SNA report code is used in an SNA condition report, it is accompanied by a structure report that identifies the absent structure. For example, the destination application name is missing in the MDS_MU received.

0002 Precluded structure present. This SNA report code is accompanied by a structure report that identifies the precluded structure.

0003 Multiple occurrences of a nonrepeatable structure. This SNA report code is accompanied by a structure report that identifies and contains the second occurrence of the structure.

0004 Excess occurrences of a repeatable structure. This SNA report code is accompanied by a structure report that identifies and contains the occurrence of the structure that exceeded the maximum number of occurrences.

0005 Unrecognized structure present where precluded. This SNA report code is accompanied by a structure report that identifies and contains the precluded unrecognized structure, plus a sibling list of all the allowed structures.

0006 Length outside specified range. This code assumes that the length arithmetic balances and that the sender intended to send the structure at that length. This SNA report code is accompanied by a structure report that identifies and contains the header of the excessively long structure plus a supplemental report that contains the allowed maximum length.

0007 Length exception. Length arithmetic is out of balance. This SNA report code is accompanied by a structure report that identifies and contains the header of the structure that exceeded its parent's boundary.

0008 Required combination of structures absent. This SNA report code is accompanied by structure reports that identify the structures that make up the combination, indicating for each whether it was present or absent.

0009 Precluded combination of structures present. This SNA report code is accompanied by structure reports that identify the structures that make up the precluded combination.

000A Required combination of structures and data values absent. This SNA report code is accompanied by structure reports that identify the structures and data values that are present, plus structure reports that identify the absent structures needed to complete the combination.

000B Precluded combination of structures and data values present. This SNA report code is accompanied by structure reports that identify the structures and data values that make up the precluded combination.

000C Unknown or unsupported data value. This SNA report code is accompanied by a structure report that identifies the structure and contains the unknown or unsupported data value.

000D Incompatible data values. This SNA report code is accompanied by structure reports that identify the structures and contain the incompatible data values.

000E Precluded character present. This SNA report code is accompanied by a structure report that identifies the structure, indicates the byte offset of the offending byte, and includes the byte containing the precluded code point.

000F Data-value out of range. This SNA report code is accompanied by a structure report that identifies the structure and contains the offending data value, plus a supplemental report that contains the maximum value allowed within the range (if a maximum range value is applicable).

0010 Segmentation present where precluded. This SNA report code is accompanied by a structure report that identifies the structure that should not have been segmented.

0011 Precluded data value. This SNA report code is accompanied by a structure report that identifies the structure and contains the offending data value.

0012 Recognized but unsupported structure. This SNA report code is accompanied by a structure report that identifies the structure.

0013 None of several possible structures found. This SNA report code is accompanied by a structure report that identifies the parent of the absent structure and may contain an unrecognized structure that was found in the place of the absent structure. The structure report also contains a sibling list of the possible structures.

0014 Incorrect order of child structures found. This SNA report code is accompanied by a structure report that identifies the parent of the incorrectly ordered child structures.

100C Unrecognized message unit.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 The received byte stream could not be identified by the receiving SNA component.

100D Request inconsistency: the control information provided for the request is not consistent with other information in the request.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 Server object size is incompatible with service level.

0002 A reply DTMU was received before completing a three-way responsibility flow in an SNA/DS request. Retry is allowed.

100E Directing exception: a node is unable to perform the required directing or redirecting function for a request as a result of insufficient directory support, or incompatibility between TP name and presence/absence of a user name.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 Agent name known but not supported for specified user destination.

0002 Agent name known but not supported for specified node destination.

0003 Agent name is known at this DSU but is not available.

100F Improper SNA/DS usage of LU 6.2.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 An SNA/DS transaction program in conversation with an adjacent SNA/DS transaction program has detected an improper sequence of LU 6.2 basic conversation verbs.

1010 Error on Locate Search or CP Capabilities Message Detected.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 Unrecoverable error, such as a duplicate control vector, was detected.

0001 A broadcast search resulted in two or more conflicting positive replies that differ on the CP owning the target resource. Multiple positive replies are acceptable, as long as all indicate the same owning CP.

0003 An error was detected that prevented the exchange of CP capabilities. Recovery may be attempted.

0004 Unrecoverable error on CP Capabilities GDS variable exchange prevented its initiation or completion on a contention-winner CP-CP session.

0005 The intersubnetwork Locate failed because an entry for the destination network ID does not exist in the border node's subnetwork list.

VTAM Hint: This sense code can be displayed in a VTAM message, but is set by another product.

1000 Length error in CP Capabilities GDS variable.

1002 A GDS variable that is not valid was received when the CP Capabilities (X'12C1') GDS variable was expected.

VTAM Hint: VTAM detects this condition during either contention-winner or the contention-loser CP-CP session activation. VTAM deactivates the CP-CP session.

4004 Incomplete negative or neutral reply received on a search or reservation indicated on Broadcast or “All” specified on a directed search.

5002 No CD-Initiate GDS variable returned on a search request.

5006 Session polarity or initiate type value received in CD-Initiate GDS variable not supported.

500A Mode name length error in CD-Initiate GDS variable.

A002 Find GDS variable not present on Locate search request.

B080 Command Parameters (X'80') control vector not present on Found GDS variable.

1011 RNAA request error: The RNAA must be rejected because there is a mismatch between sending and receiving system definitions, or capabilities.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 No available pre-ENA addresses: Reject an RNAA that requests an address that is pre-ENA compatible, and there are no pre-ENA addresses available.

0002 RNAA takeover error: In a takeover situation, a system definition mismatch was detected between the “old” SSCP and the SSCP taking over. For example, if the LU name field in the RNAA is not the same as the LU name field in the logical unit block (LUB), the RNAA is rejected. If an existing LU with the same local address is found, but the LU is generated (instead of DR-added), the RNAA is rejected. Also, if the adjacent link station (ALS) name given in the RNAA does not agree with the ALS name given in the common physical unit block (CUB), the RNAA is rejected.

0003 Invalid NETID: If the NETID field in the RNAA is not the same as the native network ID, the RNAA is rejected. There is likely a mismatch between the PU type 4 and SSCP system definitions.

0004 Invalid PU or LU type: If the PU to which the LUs are to be added is not type 1 or type 2, the RNAA is rejected. The SSCP attempts to add an LU to a PU, but NCP has defined that PU as a PU type 4. The second situation is if the SSCP sent an RNAA type X'00' or X'05' with a PU or LU specified. This is an RU-NAU mismatch caused by an SSCP-NCP definition mismatch.

0005 MAXSUBA required for pre-ENA address assignment: If MAXSUBA is not specified and an RNAA requesting a pre-ENA address is received, the RNAA is rejected.

1012 SNA/DS receiver exception MU format exception: parsing or building of the SNA/DS receiver exception MU format was unsuccessful.

1013 Unknown server parameters: the specified parameters are not recognized by the server.

1014 Control Vector Error on a Directory Services GDS Variable.

Bytes 2 and 3 following the sense code contain sense code specific information.

003C Missing Associated Resource Entry (X'3C') control vector on Find or Found.

003D Missing Directory Entry (X'3D') control vector on Find or Found.

0060 Missing CV60 on LOCATE GDS variable.

0080 Invalid control vector.

023C Conflicting directory entry or invalid Associated Resource Entry (X'3C') control vector.

502B No RSCV received from a network node server.

502C No COS/TPF control vector received in a CD-Initiate reply from a network node server.

502D The COS/TPF control vector received on the BIND is different from that on the corresponding Locate.

VTAM Hint: A dump should be taken for problem determination.

5046 TG vectors not present in a CD-Initiate from an end node OLU or DLU.

VTAM Hint: This sense code can also be set by AS/400* when an attempt to establish a session from one AS/400 to a second AS/400 across a VTAM network fails. Sessions across three different networks using APPN links are not supported in VTAM Version 4. See the section on common APPN problems, Chapter 1, “Diagnosing VTAM Problems: Where to Begin” in *VTAM Diagnosis* for more information about this problem.

A080 Missing Command Parameters (X'80') control vector on Find.

A082 Missing Search Argument Directory Entry (X'82') control vector on Find.

B280 A Found from an end node indicated the directory entry for a located resource was a wild-card entry.

1015 XID Length Error: The XID3 was too long or too short. Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 The received XID3 has fewer than 29 bytes.

0002 There is a mismatch between the number of bytes specified in the Length field of XID3 and the actual length of the received XID3.

1016 XID Format 3 Parameter Error: Data in the XID3 is not acceptable to the receiving component because the value in the received XID3 field, whose byte and bit offset is specified by the XID Negotiation Error (X'22') control vector (which also carries this sense data), is inconsistent with the corresponding field in the sent XID3.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 The field in the received XID3 that specifies the maximum number of I-frames that the sender can receive before acknowledgment is set to 0.

0002 The adjacent node has been inconsistent in its request for ACTPU. In a nonactivation XID3 exchange, it has changed the value of the ACTPU Suppression indicator sent in the previous XID3 exchange.

0003 The field in the received XID3 that specifies the maximum BTU length that the sender can receive is set to less than 99 bytes, the minimum required.

0004 The received XID was not XID format 3 when XID format 3 was expected.

0005 The adjacent node does not support BIND segment generation but does support receipt of BIND segments. Any T2.1 node supporting receipt of BIND segments must also support generation of BIND segments.

0006 The adjacent node is an end node, does not support BIND segment receipt, and has a maximum BTU size of less than 265, the minimum required in this case.

0007 The adjacent node is a network node, does not support BIND segment receipt, and has a maximum BTU size of less than 521, the minimum size required in this case.

0008 The adjacent node has changed its networking capabilities in an XID3 from those declared in the previous negotiation-proceeding or nonactivation XID3. A node may not change from an end node to a network node or *vice versa* in two different negotiation-proceeding or nonactivation XID3s.

0009 The adjacent node is an APPN network node, does not provide CP services, and supports CP-CP sessions, a combination not allowed.

000A During a nonactivation XID3 exchange, the adjacent node has changed the TG number that was negotiated during the activation exchange.

000B The adjacent node is the TG number negotiation winner and designates a TG number that the receiving node cannot allocate to this connection. When parallel TGs are supported between the two nodes, 0 is always such a number.

VTAM Hint: This sense code occurs when two VTAMs are attached by a 3172 token ring and channel-to-channel connections or any other type of connection in

parallel to a 3172 connection. After inactivation of a VTAM node with 3172 connections, you should do one of the following:

- Wait at least 4 minutes before attempting to restart the failed VTAM.
- Attempt reattachment of the 3172 connections to adjacent nodes first to prevent TG number contention.

000C The adjacent node is an APPN network node that does not support BIND segment generation, and this node has a maximum BTU receive size of less than 521. This node might, therefore, be unable to receive a BIND with RSCV from theadjacent network node.

000D The adjacent node indicates that it does not support the SDLC command/response profile in its XID3. This is the only command/response profile supported by APPN and LEN nodes.

000E Different product set IDs have been given in the Product Set ID (X'10') control vectors appended to two different received XID3s from the same adjacent node.

000F The link station roles specified in the sent and received negotiation-proceeding XID3s are not compatible. To activate a connection, one node must contain a primary link station; the other, a secondary link station.

0010 The support of combined asynchronous balanced mode link stations indicated in the sent and received negotiation-proceeding XID3s is not in agreement.

0011 A received XID3 indicates an attempt to activate multiple connections has been made when parallel transmission groups are not supported between the two nodes involved in the XID exchange.

0012 The adjacent node has sent the Network Name (X'0E', CP name) control vector in XID3 but indicates it does not support the Exchange State indicators.

0013 The DLC type indicated in the sent and received negotiation-proceeding XID3s is not in agreement.

0018 The adjacent node is an APPN node but does not support adaptive BIND pacing as a sender and receiver.

001A The adjacent node is inconsistent in its support of parallel TGs. Support of parallel TGs between two nodes cannot change either in link-activation XID exchanges on different TGs or in successive XID exchanges on the same TG.

001B The adjacent node provides or requests CP services but does not support CP-CP sessions; i.e., bytes 8–9, bits 10–11 of the received negotiation-proceeding XID3 were set to 10, a setting combination not allowed for T2.1 nodes.

001F The setting of the Intersubnetwork Link indicator of the TG Descriptor control vector received in XID3 is inconsistent with the receiving node's system definition. This sense data value is issued only if both sender and receiver support the setting of this bit.

0021 During a negotiation-proceeding XID3 exchange, one node specifies in the HPR capabilities (X'61') control vector that error recovery is required, but the other node specifies no error recovery is required. HPR protocols will not be used on this TG. (This sense data is not carried in the XID negotiation error (X'22') control vector.)

VTAM Hint: The link activated as a non-HPR link due to a disagreement between the link partners on the level of error recovery procedures (ERP) to be used. Check the value of the LLERP parameter associated with the VTAM PU, as well as the level of ERP supported for that DLC type by the link partner.

0022 The adjacent node is an HPR node (that is, it included an HPR capabilities (X'61') control vector in XID3), but is specified a maximum BTU size less than 768.

0023 The adjacent node is an HPR node (that is, it included an HPR capabilities (X'61') control vector in XID3), but it specified an invalid ANR label length (less than 1 or greater than 8)

0024 The adjacent node is an HPR node (for example, it included an HPR Capabilities (X'61') control vector in XID3), but the receiving node detected that it specified an invalid CP NCE identifier length (for example, less than 1 or greater than 8).

0025 The adjacent node is an HPR node (for example, it included an HPR Capabilities (X'61') control vector in XID3), but the receiving node detected that it specified an invalid route setup NCE identifier length (for example, less than 1 or greater than 8).

0026 The adjacent node is an HPR node (for example, it included an HPR Capabilities (X'61') control vector in XID3), but the receiving node detected that the length of the HPR Transport Tower (X'81') subfield of the control vector is inconsistent with the length of a field included in the subfield.

0031 The link being activated by this node requires the link to support HPR, be RTP capable, and support the control flows over RTP tower. The adjacent node has indicated that it does not support HPR for this link.

0032 The link being activated by this node requires the link to support HPR, be RTP capable, and support the control flows over RTP tower. The adjacent node has indicated that this link is not RTP capable.

0033 The link being activated by this node requires the link to support HPR, be RTP capable, and support the control flows over RTP tower. The adjacent node has indicated that it does not support control flows over RTP for this link.

0034 The link being activated by this node requires the support of Logical Data Link Control (LDLC) during XID exchange for this link. The adjacent node has indicated that it does not support LDLC for this link.

1018 MU sequence exception: an SNA/DS transaction program detected an improper sequence of SNA/DS MUs.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0001 A DMU has been received, but the MU_id has already been terminated.

0002 The MU_id state received from the partner is incompatible with the state in the MU_id registry.

0004 A previous terminate conversation indication has been ignored.

0005 An RRMU was received but was not followed by a change_direction indicator (i.e., the receive_and_wait verb issued after receiving the RRMU, returned something other than what_received=send).

1019 Invalid restart byte position.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0001 The restart byte position value specified in the DCMU is greater than 1 plus the value of the last byte received in the CRMU.

0002 The receiver does not support the byte-count restart elective, and the restart byte position value specified in the DCMU is not the beginning of the LLid structure following the last successfully received LLid structure.

0003 The receiver supports the byte-count restart elective, and the restart byte position value specified in the DCMU is not equal to 1 and is less than or equal to the last byte received value specified in the CRMU.

101A Invalid Control Vector Sequence: A control vector was found containing a key that was invalid for the position of the control vector within a TDU.

0000 No specific code applies.

nnmm Byte 2 following the sense code contains the key (nn) of the vector previous to the one in error; byte 3 contains the key (mm) of the vector in error.

101C Invalid Data Received

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 Alteration of input data not allowed.

101D Insufficient Length: The length of the received signal is insufficient to contain additional required fields.

Bytes 2 and 3 following the sense code contain sense code specific information. Settings allowed are:

0000 No specific code applies.

0001 A BIND or RSP(BIND) was received that was too large to be extended. The BIND was rejected.

0002 An UNBIND was received that was too large to be extended. An UNBIND cleanup is sent on both session stages.

101E Capabilities mismatch. Sent when the control point capabilities of the adjacent node are deemed unacceptable.

Bytes 2 and 3 following the sense code contain sense code specific information.

nnnn Bytes 2 and 3 contain a binary count that bit indexes (zero-origin) the first unacceptable subfield within the Support Indicators subfield of the X'12C1' CP Capabilities GDS Variable.

VTAM Hint: Refer to *SNA Formats* or *SNA Network Product Formats* for a description of the CP Capabilities GDS variable.

20XX (State Error)

This category indicates a sequence-number error, or an RH or RU that is not allowed for the receiver's current session control or data flow control state. These errors prevent delivery of the request to the intended component.

Category and modifier (in hexadecimal):

2001 Sequence number: Sequence number received on normal-flow request was not 1 greater than the last.

2002 Chaining: Error in the sequence of the chain indicator settings (BCI, ECI), such as first, middle, first.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 The receiver received a middle or end-chain request when in the in-chain state.

0002 The receiver received a begin-chain request when in the in-chain state.

2003 Bracket: Error resulting from failure of sender to enforce bracket rules for session. (This error does not apply to contention or race conditions.)

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 The receiver received a begin-bracket request before receiving a response to its own previously sent begin-bracket request.

0002 The receiver received a begin-bracket request not specifying begin-bracket when in the between-bracket state.

0003 The receiver received an out-of-sequence LUSTAT command.

2004 Direction: Error resulting from a normal-flow request received while the half-duplex flip-flop state was not Receive.

2005 Data traffic reset: An FMD or normal-flow DFC request received by a half-session whose session activation state was active, but whose data traffic state was not active.

2006 Data traffic quiesced: An FMD or DFC request received from a half-session that has sent QUIESCE COMPLETE or SHUTDOWN COMPLETE and has not responded to RELEASE QUIESCE.

2007 Data traffic not reset: A session control request (for example, STSN), allowed only while the data traffic state is reset, was received while the data traffic state was not reset.

2008 No begin bracket: An FMD request specifying BBI=BB was received after the receiver had previously received a BRACKET INITIATION STOPPED request.

2009 Session control protocol violation: An SC protocol has been violated; a request, allowed only after a successful exchange of an SC request and its associated positive response, has been received before such successful exchange has occurred (for example, an FMD request has preceded a required cryptography verification request). The request code of the particular SC request or response required, or X'00' if undetermined, appears in the fourth byte of the sense data.

200A Immediate request mode error: The immediate request mode protocol has been violated by the request.

200B Queued response error: The queued response protocol has been violated by a request; that is, QRI=¬QR when an outstanding request had QRI=QR.

200C ERP sync event error: The ERP sync event protocol in DFC has been violated; for example, after receiving a negative response to a chain, a request other than a request soliciting a synchronization event response was sent to DFC_SEND and rejected.

200D Response owed before sending request: An attempt has been made in half-duplex (flip-flop or contention) send/receive mode to send a normal-flow request when a response to a previously received request has not yet been sent.

200E Response correlation error: A response was received that cannot be correlated to a previously sent request.

200F Response protocol error: A violation has occurred in the response protocol; for example, a +RSP to an RQE chain was generated.

2010 BIS protocol error: A BIS protocol error was detected; for example, a BIS request was received after a previous BIS was received and processed.

2011 Pacing protocol error.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 A normal-flow request was received by a half-session after the pacing count had been reduced to 0 and before a pacing response had been sent.

0001 Unexpected isolated pacing message (IPM) received: An IPM was received when the receiver was in a state that did not allow it.

0002 Unexpected pacing request received: A request with the pacing indicator set was received when the receiver was in a state that did not allow it.

0003 Pacing Response Indicator Incorrectly Set: The pacing indicator was set in a non-IPM response received while adaptive pacing was being used.

2012 Invalid sense code received: A negative response was received that contains an SNA-defined sense code that cannot be used for the sent request.

2013 Decompression protocol error: A request containing compressed data was received in error.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 The decompressor received a compressed RU without an expected Reset decompression control sequence. The compressor and the decompressor are not synchronized.

0002 The decompressor received a compressed RU containing an invalid decompression control sequence. The compressor and the decompressor are not synchronized.

0003 The length of the decompressed RU did not match the length given in the compression header.

0004 The decompressor has determined that the compression header indicates an illegal compression algorithm was used. The compression algorithm was not agreed to during the session-activation negotiation.

0005 The decompressor has detected that the decompressed RU size exceeds the maximum RU size.

40XX (RH Usage Error)

This category indicates that the value of a field or combination of fields in the RH violates architectural rules or previously selected BIND options. These errors prevent delivery of the request to the intended component and are independent of the current states of the session. They may result from the failure of the sender to enforce session rules. Detection by the receiver of each of these errors is optional.

Category and modifier (in hexadecimal):

4001 Invalid SC or NC RH: The RH of a session control (SC) or network control (NC) request was invalid. For example, an SC RH with pacing request indicator set to 1 is invalid.

4003 BB not allowed: The begin bracket indicator (BBI) was specified incorrectly, for example, BBI=BB with BCI=¬BC.

4004 CEB or EB not allowed: The conditional end bracket indicator (CEBI) or end bracket indicator (EBI) was specified incorrectly, for example, CEBI=CEB when ECI=¬EC or EBI=EB with BCI=¬BC, or by the primary half-session when only the secondary may send EB, or by the secondary when only the primary may send EB.

4005 Incomplete RH: Transmission shorter than full TH-RH.

4006 Exception response not allowed: Exception response was requested when not permitted.

4007 Definite response not allowed: Definite response was requested when not permitted.

4008 Pacing not supported: The pacing indicator was set on a request, but the receiving half-session or boundary function half-session does not support pacing for this session.

4009 CD not allowed: The change direction indicator (CDI) was specified incorrectly, for example, CDI=CD with ECI=¬EC, or CDI=CD with EBI=EB.

400A No-response not allowed: No-response was specified on a request when not permitted. (Used only on EXR.)

400B Chaining not supported: The chaining indicators (BCI and ECI) were specified incorrectly, for example, chaining bits indicated other than (BC,EC), but multiple-request chains are not supported for the session or for the category specified in the request header.

400C Brackets not supported: The bracket indicators (BBI, CEBI, and EBI) were specified incorrectly, for example, a bracket indicator was set (BBI=BB, CEBI=CEB, or EBI=EB), but brackets are not used for the session.

400D CD not supported: The change-direction indicator was set, but is not supported.

400F Incorrect use of format indicator: The format indicator (FI) was specified incorrectly, for example, FI was set with BCI=¬BC, or FI was not set on a DFC request.

4010 Alternate code not supported: The code selection indicator (CSI) was set when not supported for the session.

4011 Incorrect specification of RU category: The RU Category indicator was specified incorrectly, for example, an expedited-flow request or response was specified with RU Category indicator = FMD.

4012 Incorrect specification of request code: The request code on a response does not match the request code on its corresponding request.

4013 Incorrect specification of (SDI, RTI): The sense data included indicator (SDI) and the response type indicator (RTI) were not specified properly on a response. The proper value pairs are (SDI=SD, RTI=negative) and (SDI=¬SD, RTI=positive).

4014 Incorrect use of (DR1I, DR2I, ERI): The definite response 1 indicator (DR1I), definite response 2 indicator (DR2I), and exception response indicator (ERI) were specified incorrectly, for example, a SIGNAL request was not specified with DR1I=DR1, DR2I=¬DR2, and ERI=¬ER.

4015 Incorrect use of QRI: The queued response indicator (QRI) was specified incorrectly, for example, QRI=QR on an expedited-flow request.

4016 Incorrect use of EDI: The enciphered data indicator (EDI) was specified incorrectly, for example, EDI=ED on a DFC request.

4017 Incorrect use of PDI: The padded data indicator (PDI) was specified incorrectly, for example, PDI=PD on a DFC request.

4018 Incorrect setting of QRI with bidder's BB: The first speaker half-session received a BB chain requesting use of a session (via LUSTAT(X'0006')), but the QRI was specified incorrectly; that is, QRI=¬QR.

4019 Incorrect indicators with last-in-chain request: A last-in-chain request has specified incompatible RH settings, for example, RQE*, CEBI=¬CEB, and CDI=¬CD.

4021 QRI setting in response different from that in request: The QRI setting in the response differs from the QRI setting in the corresponding request.

80XX (Path Error)

This category indicates that the request could not be delivered to the intended receiver, because of a path outage, an invalid sequence of activation requests, or one of the listed path information unit (PIU) errors. Some PIU errors fall into other categories; for example, sequence number errors are sense code category X'20'. A path error received while the session is active generally indicates that the path to the session partner has been lost.

Category and modifier (in hexadecimal):

8000 A path error occurred, but no further information about the error is available. Errors occurred because of an outstanding I/O request being purged. For example, an ACB for an application which has outstanding I/O requests received INOP, or an operator entered VARY INACT for resources that had outstanding I/O requests.

8001 Intermediate node failure: Machine or program check in a node providing intermediate routing function. A response may or may not be possible.

8002 Link failure: Data link failure.

0000 No specific code applies.

VTAM Hints:

- If the IST1097I message group is displayed with this sense code, followed by a display of the IST1110I message group with sense code X'80140001', then the CP-CP session failed due to the loss of the last CP-capable connection with the adjacent control point.
- If 80020000 received for session using a switched PU that has DISCNT=YES and is in the process of inactivating because there are no more LU-LU sessions, this is a temporary condition and the session might be retried.
- If 8002000 received for session using a switched PU that is receiving simultaneous inbound and outbound calls, this is a temporary condition and the session might be retried.
- If this system is running on a 9221 processor, and if message IST446I indicates DEVICE NOT OPERATIONAL 00,00FE,00 has been received when activating a LAN major node, the problem might be caused by missing IODEVICE statements in the IOCCP GEN.

8003 NAU inoperative: The NAU is unable to process requests or responses; for example, the NAU has been disrupted by an abnormal termination.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

VTAM Hint: A possible cause of this error is that the LU is inoperative.

0001 Hierarchical reset: The identified LU-LU session is being deactivated; an ACTLU/ACTPU (Cold) or DACTLU/DACTPU was received, or the PU has failed.

0003 Unrecoverable LU failure: The identified LU-LU session had to be deactivated because of an abnormal termination of the PLU or SLU; recovery from the failure was not possible.

0004 Recoverable LU failure: The identified LU-LU session had to be deactivated because of an abnormal termination of one of the LUs of the session; recovery from the failure may be possible.

0005 Hierarchical reset: Backup session reset resulted from a hierarchical reset.

8004 Unrecognized destination: A node in the path has no routing information for the destination specified either by the SLU name in a BIND request or by the TH.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

VTAM Hint: Possible causes of this error include, but are not limited to, the following:

- The destination address field (DAF) is not recognized.
- There may be a hardware problem with the PU.
- If the Anynet/MVS feature is installed and a session activation to an LU in a TCP/IP network fails with this sense code, the session may have failed because the LU in the TCP/IP network is not defined in an accessible TCP/IP domain name server.

0001 A request received by a gateway function could not be rerouted because of invalid or incomplete routing information.

8005 No session: No half-session is active in the receiving end node for the indicated origination-destination pair, or no boundary function session connector is active for the origin-destination pair in a node providing the boundary function. A session activation request is needed.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

VTAM Hint: If this sense code is displayed in message IST1280I, take one of the following actions:

- Perform an operator activation of the CP-CP session by entering a VARY ACT,ID=*adjcpname* command at the end node.
- Modify the network node server list to include either an explicit entry for the desired network node or a nameless entry.

0001 The receiver received a request other than a session control request when no LU-LU session was active.

0002 The receiver received a request other than a session control request when no LU-SSCP session was active.

0003 The receiver received a session control request other than BIND/UNBIND when no LU-LU session was active.

0004 The receiver received an UNBIND when no LU-LU session was active.

0005 The receiver received a session control request other than ACTLU/DACTLU for the LU-SSCP session when no LU-SSCP session was active.

0006 The receiver received DACTLU when no LU-SSCP session was active.

0007 Session not activated: A BIND was received for a dependent LU that has not received an ACTLU to activate the SSCP-LU session.

0008 A request could not be forwarded to the destination node because an active session with that node did not exist. The name of the node that could not forward the request is indicated in the accompanying name list (X'06') subvector.

8006 Invalid FID: Invalid FID for the receiving node.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 The FID-5 transmission header (TH) that was received contained errors that precluded further processing of the message.

8007 Segmenting error: First BIU segment had less than 10 bytes; or mapping-field sequencing error, such as first, last, middle; or segmenting not supported and mapping field not set to BBIU, EBIU.

Note: If segmenting is not supported, a negative response is returned for the first segment only since this contains the RH. Subsequent segments are discarded.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 The node does not support receipt of segments, and a mapping field value other than BBIU, EBIU was received. Sent in UNBIND.

0002 Interleaved BIND segments not allowed: A BIND receiver that is in the middle of receiving segments of one BIND receives a segment from a different BIND; the receiver rejects both BINDs and disconnects all the links in the transmission group.

8008 PU not active: The SSCP-PU secondary half-session in the receiving node has not been activated, and the request was not ACTPU for this half-session; for example, the request was ACTLU from an SSCP that does not have an active SSCP-PU session with the PU associated with the addressed LU.

Bytes 2 and 3 following the sense code contain sense code specific information.

0001 A physical unit name was specified for an independent LU session tail. The specified PU is either unknown or in a state that is not valid.

0002 No ALS (adjacent link station) list was provided for an independent LU. You must define an ALS for an independent LU if you want to use VARY LOGON and LOGAPPL for the independent LU. You can also use VTAM functions to dynamically determine an ALS.

8009 LU not active: The destination address specifies an LU for which the SSCP-LU secondary half-session has not been activated and the request was not ACTLU.

800A Too-long PIU: Transmission was truncated by a receiving node because the PIU exceeded a maximum length or sufficient buffering was not available.

VTAM Hint: A possible cause of this error is that a session ended unexpectedly and either no message is received or an exception request (EXR) is generated with this sense code. When an application receives an exception request or response with this sense code, it usually ends the session. No VTAM message is issued, but the application might issue a message. This can occur when a path information unit (PIU) is too large to be passed from one node to another. See the section on common subarea network problems, Chapter 1, “Diagnosing VTAM Problems: Where to Begin” in *VTAM Diagnosis* for more information about this problem or refer to APAR II03990.

800B Incomplete TH: Transmission received was shorter than a TH.

Note: It is generally not possible to send a response for this exception condition, since information (FID, addresses) required to generate a response is not available.

800C DCF error: Data count field inconsistent with transmission length.

800D Lost contact: Contact with the link station for which the transmission was intended has been lost, but the link has not failed. If the difference between link failure and loss of contact is not detectable, link failure (X'8002') is sent.

800E Unrecognized origin: The origin address specified in the TH was not recognized.

800F The address combination is invalid.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 The (DAF',OAF') (FID2) combination or the LSID (FID3) specified an invalid type of session, for example, a PU-LU combination.

0001 The FID2 ODAI setting in a received BIND is incorrect; the BIND is rejected.

8010 Segmented RU length error: An RU was found to exceed a maximum length, or required buffer allocation that might cause future buffer depletion.

8011 ER inoperative or undefined: A PIU was received from a subarea node that does not support ER and VR protocols, and the explicit route to the destination is inoperative or undefined.

8012 Subarea PU not active, or invalid virtual route: A session-activation request for a peripheral PU or LU cannot be satisfied because there is no active SSCP-PU session for the subarea node providing boundary function support, or the virtual route for the specified SSCP-PU (type 1 or type 2 nodes) or SSCP-LU session is not the same as that used for the SSCP-PU session of the type 1 or type 2 node's PU or the LU's subarea PU.

8013 Route not available: No route is available to connect the specified origin subarea (OSA) and destination subarea (DSA) for the specified COS.

Note: If none of the virtual routes specified in the VR identifier list or route specification for the session is active or can be activated, the reported reason is set based on a hierarchy of failure events. The "highest" of the failures that occurred within the set of virtual routes is returned on the response. For example, if the VR manager receives a negative response to an NC_ACTVR request for a VR specified in the VR identifier list and for all other VRs in the list no VR to ER mapping is specified, reason X'nn06' is reported. The hierarchy of the failure reasons is in ascending numeric order; that is, reason X'nn02' is higher than reason X'nn01'.

Bytes 2 and 3 following the sense code indicate the environment in which the failure was detected and the reason for the failure.

0000 No specific code applies: This means an error occurred, but none of the conditions listed below applies. This code is issued in a single network environment.

VTAM Hint: Possible causes for this error include, but are not limited to, the following:

- The subarea class of service is not known. Verify that the node issuing the sense code has a usable subarea class of service for the mode associated with the session request. This problem can occur when a mode table is copied from one node to another, and the subarea classes of service specified by the table no longer map to valid COS names defined at that node.
- There is an error in the path definitions.

0001 No mapping specified: A session-activation request cannot be satisfied because for each VR in the VR identifier list for the session, no VR to ER mapping is specified.

0002 No explicit routes defined: A session-activation request cannot be satisfied because each VR in the VR identifier list for the session maps to a corresponding ER that is not defined. This code is issued in a single network environment.

0003 No VR resource available: A session-activation request cannot be satisfied because each VR specified in the VR identifier list for the session requires a node resource that is not available. This code is issued in a single network environment.

0004 No explicit routes operative: A session-activation request cannot be satisfied because no underlying ER is operative for any VR specified in the VR identifier list for the session. This code is issued in a single network environment.

0005 No explicit route can be activated: A session-activation request cannot be satisfied because no VR specified in the VR identifier list for the session mapped to a defined and operative ER that could be activated. This code is issued in a single network environment.

0006 No virtual route can be activated: A session-activation request cannot be satisfied because no VR specified in the VR identifier list for the session can be activated by the PU, though, for at least one VR, an underlying ER is defined, operative, and activated. This code is issued in a single network environment.

0007 No virtual route identifier list available: A session-activation request cannot be satisfied because a route specification is unavailable or incomplete. A valid route specification is either a VR identifier list or a route dynamics route specification control vector. This code is issued in a single network environment.

0100 No specific code applies: This means an error occurred, but none of the conditions listed below applies. This code is issued in an interconnected network. The failure was detected at a node in a subnetwork other than that of the NAU sending the activation request.

0101 No mapping specified: A session-activation request cannot be satisfied because for each VR in the VR identifier list for the session, no VR to ER mapping is specified. This code is issued in an interconnected network. The failure was detected at a node in a subnetwork other than that of the NAU sending the activation request.

VTAM Hint: Ensure that the PATH definition statement for the gateway NCP contains VRs coded for the networks in both directions.

0102 No explicit routes defined: A session-activation request cannot be satisfied because each VR in the VR identifier list for the session maps to a corresponding ER that is not defined. This code is issued in an interconnected network. The failure was detected at a node in a subnetwork other than that of the NAU sending the activation request.

0103 No VR resource available: A session-activation request cannot be satisfied because each VR specified in the VR identifier list for the session requires a node resource that is not available. This code is issued in an interconnected network. The failure was detected at a node in a subnetwork other than that of the NAU sending the activation request.

0104 No explicit routes operative: A session-activation request cannot be satisfied because no underlying ER is operative for any VR specified in the VR identifier list for the session. This code is issued in an interconnected network. The failure was detected at a node in a subnetwork other than that of the NAU sending the activation request.

0105 No explicit route can be activated: A session-activation request cannot be satisfied because no VR specified in the VR identifier list for the session mapped to a defined and operative ER that could be activated. This code is issued in an interconnected network. The failure was detected at a node in a subnetwork other than that of the NAU sending the activation request.

0106 No virtual route can be activated: A session-activation request cannot be satisfied because no VR specified in the VR identifier list for the session can be activated by the PU, though, for at least one VR, an underlying ER is defined, operative, and activated. This code is issued in an interconnected network. The failure was

detected at a node in a subnetwork other than that of the NAU sending the activation request.

0107 No virtual route identifier list available: A session-activation request cannot be satisfied because a route specification is unavailable or incomplete. A valid route specification is either a VR identifier list or a route dynamics route specification control vector.

8014 No Path Exists to the Destination Node: Route selection services in the CP has determined from the topology database that no path exists to the destination node.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 No route to the destination node exists for the specified class of service.

VTAM Hint: Possible causes of this error include, but are not limited to, the following:

- If the IST1097I message group is displayed with the X'80020000' sense code, followed by a display of the IST1110I message group with this sense code, then the CP-CP session failed due to the loss of the last CP-capable connection with the adjacent control point.
- If there are multiple entry points to the subarea network, there must be a COS-acceptable route from the origin node to each interchange node that represents a possible subarea entry point to be used to reach the destination LU. A COS-acceptable route is a route that is acceptable for the class of service specified on the session request.

  Examine your network configuration to determine if a valid path does exist. Use the DISPLAY TOPO command to verify that the topology database currently shows the links in the path as operational. If a valid APPN path exists, the characteristics of the nodes and links in the operational paths may not meet the requirements of the specified class of service. Check the following:

  – Verify that the mode name specified on the request maps to the intended class of service.

  – Examine the LINEROWs and NODEROWs in the class of service definition to determine what the allowable ranges are for the link and node characteristics.

  – Use the DISPLAY TOPO command to view the characteristics of the nodes and TGs in the likely paths. Look for the following problems:

    - Nodes in the path are congested or have route resistance values outside the limits set by the class of service.

    - The COS definition required secure links, but no path exists consisting exclusively of secure TGs.

    - High capacity (speed) was required by the COS definition, but no path exists in which all of the links are fast enough to meet the specified minimum capacity.

0002 Invalid COS name received.

VTAM Hint: The most common reasons for this error are:

- The requested APPN class-of-service (COS) definition is not found in the COS database at the node issuing this sense code.

- The requested mode name for the session does not map to an APPN class of service known by this node.

Examine the mode definition to determine the APPN COS name. Verify that this definition exists in a VTAMLST member at the nodes which resolve the mode to an APPN class of service. Activate the member to ensure that the definition is active. If APPN COS substitution has been enabled by specifying the APPNCOS start option, verify that the COS it specifies has been activated.

0003 The topology database indicates that the destination node is not available at this time; the node either has inconsistent data or is quiescing.

0004 The topology database indicates that the endpoint resources are depleted; the node is out of either half-session control blocks or message buffers.

0005 The length of the generated RSCV exceeds the maximum allowed.

VTAM Hint: This sense code indicates that the attempt to build the route selection control vector failed because the number of hops between the origin and destination nodes was too large.

Examine your network configuration to determine how many hops would be expected in the best route for the requested APPN class of service. If the number of hops within a single APPN subnetwork is greater than 6, you may need to provide a more direct origin-to-destination path.

If you are using connection network routing, reducing the length of the connection network name reduces the length of the generated RSCV. The reduced RSCV might be shorter than the maximum length allowed.

0006 No path using only HPR (high-performance routing) links exists to the destination node.

0007 BIND RSCV consists of only an interchange TG.

VTAM Hint: An RSCV was calculated that consisted of only interchange TGs. APPN Locates will not be used to set up the session.

0008 This node calculated an RSCV in which it does not own the boundary function.

VTAM Hint: This node calculated an RSCV in which it doesn't own the boundary function.

8015 Path not available.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0004 The internetwork Locate failed because an internetwork route did not exist that matched the requested class of service.

VTAM Hint: An error has occurred during COS mapping in a node supporting APPN multiple network connectivity. Whenever a search crosses an APPN subnetwork link, the node receiving the search must map the COS it received to an equivalent COS to be used in its subnet. The COS being mapped is defined by the user in the COSMAP definition deck. The error occurs when the user maps the original COS to a COS that has not been defined within this node.

8016 Not a proper ER

Bytes 2 and 3 following the sense code contain sense code specific information. Settings allowed are:

0000 No specific code applies.

0001 The ER is not in the proper state for routing a PIU, as indicated by the state of the dynamic routing table entry.

8017 PIU from adjacent pre-ER-VR subarea node rejected: A PIU that requires intermediate path-control routing was received by a subarea node from an adjacent subarea node that does not support ER-VR protocols, but the receiving subarea node does not support intermediate path-control routing for adjacent subarea nodes that do not support ER-VR protocols.

8018 Management services component is unable to find or recognize the name of the application transaction program specified in the request.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

Operations management is unable to route the MDS_MU to the served application specified in the DAN field of the R and TI because the served application's subtask is not active.

0001 The application transaction program specified in the request is not recognized by physical unit management services (PUMS).

8019 Routing exception: a node is unable to perform the required routing function for a request.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 Unknown routing group name.

0002 Unknown routing group name, routing element name combination.

0004 No connection is available for level of service required.

0005 The Routing and Targeting Instructions GDS variable is is required but is not present.

0006 The internetwork Route Selection subfield (IRSS) was required to be included in a BIND RSCV, but was either missing or had a format which was not valid.

0007 The internetwork Route Selection subfield (IRSS) was required to be included in a Locate request or reply, but was either missing or had format that was not valid.

0008 The border node detected multiple instances of its own name in the Internetwork Route Selection subfield (IRSS) in a Locate request or reply or in a BIND, indicating a routing loop.

0009 An explicit route was not available to permit activation of a virtual route-based APPN TG.

000A An activation request was received that was not valid for the current state of the specified virtual route-based APPN TG.

000B Origin node not found. TRS received a route calculation request with no origin endpoint TG vectors and could not find a node entry for the origin node in the topology database.

000C A border node is not in the PLU's subnetwork when searching for a DLUS-supported LU. This occurs when a DLUS node determines that the PLU node's subnetwork did not use a border node for subnetwork connectivity when sending out a Locate request for a DLUS-served dependent LU.

VTAM Hint: The dependent LU server (DLUS) and dependent LU requester (DLUR) are in different APPN subnetworks, which requires that an extended border node be

present in the PLU's subnetwork. This session path does not have an extended border node in the PLU's subnetwork.

801C Hop count exhausted.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 The request has been forwarded by an excessive number of nodes (for example, the count has been decremented at each node and has reached 0) and, therefore, the request could not be delivered to one or more destinations. Typically, this exception indicates that one or more nodes have incorrectly routed or directed the request. The exception may also indicate that the routing/directing count was not appropriately initiated according to network size.

8020 Session reset: The LU-LU session identified in the UNBIND is being deactivated because of a reset condition.

Bytes 2 and 3 following the sense code contain sense code specific information.

0000 No specific code applies.

0001 Virtual route inoperative: The virtual route used by the LU-LU session has become inoperative, thus forcing the deactivation of the identified LU-LU session.

0002 Hierarchical reset of both XRF-active and XRF-backup sessions: The XRF-backup session has failed; therefore, both the XRF-active and XRF-backup session are being reset.

0003 Virtual route deactivated: The identified LU-LU session had to be deactivated because of a forced deactivation of the virtual route being used by the LU-LU session.

0004 Route extension failure: The route extension used by the LU-LU session has become inoperative, thus forcing the deactivation of the identified LU-LU session.

0005 Route extension failure: The route extension used by the XRF-backup LU-LU session has become inoperative, thus forcing the deactivation of the identified XRF-backup LU-LU session.

0006 Virtual route inoperative: The virtual route used by the LU-LU session has become inoperative, thus forcing the deactivation via VR-INOP of the identified XRF-backup LU-LU session.

0007 An LU requested termination.

0008 BFTERM has been received with no indication of the cause of the reset.

0009 Termination was requested by the dependent SLU with a TERMINATE_SELF or character coded LOGOFF.

000A The identified LU-LU session had to be deactivated because its underlying RTP connection has become inoperative.

000B The identified LU-LU session had to be deactivated because its underlying RTP connection was deactivated.

| **000D** The cross-domain resource session has been terminated.

8021 Path switch failure: The attempt to switch the path traversed by an RTP connection has failed.

Bytes 2 and 3 following the sense code contain sense code specific information. Settings allowed are:

0000 No specific code applies.

0001 The original path of the RTP connection is inoperative. Because the path switch failed, all sessions using the RTP connection will be terminated.

0002 The original path of the RTP connection is still operative. The RTP connection will continue operation over the original path.

A0XX (RTP Sense Data)

This category indicates when an RTP machine detects a protocol violation and terminates the RTP connection.

Category and modifier (in hexadecimal):

A001 The RTP connection failed.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0003 The setting of the start-of-message bit in a received packet was unexpected. One of the following error conditions was detected:

- During reassembly of a user message, the byte-sequence-number field of a received packet is set to the next expected sequence number of the user message, but the start-of-message bit is set to 1.
- The byte-sequence-number field of a received packet containing data is set to the expected starting sequence number of a user message, but the start-of-message bit is set to 0.
- The byte-sequence-number field of a received packet is set to the expected starting sequence number of a user message. The end-of-message bit is set to 1, but the start-of-message bit is set to 0.
- Lower sequence-numbered data was received in an earlier packet with the last-message bit set to 1, but the start-of-message bit is set to 1 in the newly received packet.

0004 The setting of the end-of-message (EOMI) bit in a received packet was unexpected. One of the following error conditions was detected:

- A packet containing data has the last-message bit (LMI) set to 1, but the end-of-message bit is set to 0.
- During reassembly of a user message, the byte-sequence-number field of a received packet is set to the next expected sequence number of the user message; the last-message bit is set to 1, but the end-of-message bit is set to 0.
- The byte-sequence-number field of a received packet is set to the expected starting sequence number of a user message. The start-of-message bit (SOMI) is set to 1, the last-message bit is set to 1, but the end-of-message bit is set to 0.

0008 The setting of the last-message bit in a received packet was unexpected. The following error condition was detected:

- The last-message bit is set to 1 in a retransmitted packet, but higher sequence-numbered data was received in an earlier packet.

000B The setting of the “connection qualifier source identifier field present” bits in a received packet was unexpected. The following error condition was detected:

- The TCID-assignor bit is set to 1, but the “connection qualifier/source identifier field present” bits are not set to 01.

000C The setting of the “optional segments present” bit in a received packet was unexpected. The following error condition was detected:

- No active context is found, the setup-packet bit is set to 1, but the “optional segments present” bit is set to 0.

000D The setting of the DATA OFFSET/4 in the THDR field in a received packet was unexpected. One of the following error conditions was detected:

- The data-length field has a value greater than 0, but the payload-offset/4 field points to an offset beyond the end of the network layer packet.
- The data-length field has a value greater than 0, but the setting of the DATA OFFSET/4 field is not consistent with the encodings of the connection-qualifier/source-identifier field and the optional segments.

000E The setting of the DATA length field in the THDR of a received packet was unexpected. One of the following error conditions was detected:

- The data-length field has a value greater than 0, but the DATA OFFSET/4 field points to an offset from which there is insufficient remaining length for the data.
- The packet contains data, but lower sequence-numbered data was received in an earlier packet with the last-message bit set to 1.

000F The setting of the byte sequence number field (BSN) in a received packet was unexpected. The following error condition was detected:

- The byte-sequence-number field of a received packet is higher than the next expected sequence number (that is, a new gap in the user data stream is detected), but the last-message bit was set to 1 in an earlier packet.

0014 The setting of the target resource identifier field present bit of the connection setup segment in a received packet was unexpected. The following error condition was detected:

- The target resource identifier field present bit in the connection setup segment is set to 0, but target resource identification is required by the receiver.

0016 The setting of the ARB flow congestion control used bit of the connection setup segment in a received packet was unexpected. The following error condition was detected:

- The ARB flow/congestion control used bit is set to 0, but the use of ARB flow/congestion control is required by the receiving RTP.

0017 A field setting in the topic identifier (X'28') control vector in the connection setup segment in a received packet was unexpected. One of the following error conditions was detected:

- The topic-identifier field within the topic-identifier (X'28') control vector is not correctly encoded.
- The topic identifier specified in the topic-identifier (X'28') control vector is not supported.

0018 A field setting in the network identifier (X'03') control vector in a received packet was unexpected. One of the following error conditions was detected:

- The network-identifier field within the network-identifier (X'03') control vector is not correctly encoded.
- The network-identifier specified in the network-identifier (X'03') control vector within the connection-setup segment is not the network identifier associated with the receiving RTP.

0019 A field setting in the node identifier (X'00') control vector in a received packet was unexpected. One of the following error conditions was detected:

- The node-identifier field within the node-identifier (X'00') control vector is not correctly encoded.
- The node-identifier specified in the node-identifier (X'00') control vector within the connection-setup segment is not the node identifier associated with the receiving RTP.

001E The setting of the closed bit of the status segment in a received packet was unexpected. One of the following error conditions was detected:

- The closed bit in the status segment is set to 1, but not all reliable data sent to the partner is acknowledged.
- The closed bit in the status segment is set to 1, but data is queued for transmission.

0022 The setting of the DSEQ field of the status segment in a received packet was unexpected. The following error condition was detected:

- RSEQ and DSEQ in the status segment are not consistent. The values indicate data not received has been delivered.

0032 The beginning and ending sequence numbers for an acknowledged byte-span pair (ABSP) in a status segment in a received packet were unexpected. The following error condition was detected:

- The beginning and ending sequence numbers for an ABSP are not consistent either with RSEQ or another ABSP. The sequence numbers overlap.

0033 A field setting in the HPR switching information (X'83') control vector in a received packet was unexpected. The following error condition was detected:

- The maximum packet size specified in the HPR switching information (X'83') control vector is fewer than 768 bytes.

0035 A field setting in the NCE identifier (X'26') control vector in a received packet was unexpected. The following error condition was detected:

- The NCE-identifier field within the NCE-identifier (X'26') control vector is not correctly encoded.

0037 Window flow control was requested by the calling RTP but is not supported by the listening RTP.

003A The using layer terminated abnormally. (This error condition is associated with the RTP user interface and is implementation dependent.)

A018 The RTP connection failed.

0000 An RTP control vector length error was detected. The value in the length field of the control vector added to the current byte offset within the embedding structure (either an optional segment or control vector) exceeds the actual length of the embedding structure, or the value in the length field is inconsistent with the format definition for the control vector. nn is the key of the control vector in error. mm is the key of the embedding control vector or optional segment. One of the following error conditions was detected:

- The length of the node identifier (X'00') control vector exceeds the remaining length of the network address (X'05') control vector, or the length of the node identifier control vector is inconsistent with its format definition — X'A0180500'.

- The length of the network identifier (X'03') control vector exceeds the remaining length of the network address (X'05') control vector, or the length of the network identifier control vector is inconsistent with its format definition — X'A0180503'.
- The length of the NCE identifier (X'26') control vector exceeds the remaining length of the network address (X'05') control vector, or the length of the NCE identifier control vector is inconsistent with its format definition — X'A0180526'.
- The length of an unrecognized control vector contained within the network address (X'05') control vector exceeds the remaining length of the network address control vector — X'A01805xx', where xx is the key of the unrecognized control vector.
- The length of the node identifier (X'00') control vector exceeds the remaining length of the connection setup segment, or the length of the control vector is inconsistent with its format definition — X'A0180D00'.
- The length of the network identifier (X'03') control vector exceeds the remaining length of the connection setup segment, or the length of the control vector is inconsistent with its format definition — X'A0180D03'.
- The length of the topic identifier (X'28') control vector exceeds the remaining length of the connection setup segment, or the length of the control vector is inconsistent with its format definition — X'A0180D28'.
- The length of the HPR switching information (X'83') control vector exceeds the remaining length of the switching information segment, or the length of the control vector is inconsistent with its format definition — X'A0181483'.
- The length of return ANR field specified in the HPR switching information (X'83') control vector is greater than the remaining length of the control vector — X'A0181483'.
- The length of the HPR return route TG descriptor (X'85') control vector exceeds the remaining length of the switching information segment, or the length of the control vector is inconsistent with its format definition — X'A0181485'.

FF00 An RTP optional segment or control vector length error was detected. The value in the length field of the optional segment or control vector added to the current byte offset within the embedding structure, the RTP transport header, exceeds the actual length of the embedding structure, or the value in the length field is inconsistent with the format definition for the optional segment or control vector. 00 is the key of the optional segment or control vector in error. One of the following error conditions was detected:

- The length of the network address (X'05') control vector exceeds the remaining length of the Network Layer Packet — X'A018FF05'.
- The length of the connection setup segment exceeds the remaining length of the network layer packet, or the length of the segment is shorter than its minimum length — X'A018FF0D'.
- The length of the status segment exceeds the remaining length of the network layer packet, or the length of the segment is shorter than its minimum length — X'A018FF0E'.
- The number of acknowledged byte span pairs specified in the status segment is inconsistent with the length of the segment — X'A018FF0E'.

- The length of the client out-of-band bits segment exceeds the remaining length of the network layer packet, or the length of the segment is shorter than its minimum length — X'A018FF0F'.
- The length of the connection identifier exchange segment exceeds the remaining length of the network layer packet, or the length of the segment is shorter than its minimum length — X'A018FF10'.
- The length of the connection fault segment exceeds the remaining length of the network layer packet, or the length of the segment is shorter than its minimum length (no connection fault segment is returned to the partner) — X'A018FF12'.
- The length of the switching information segment exceeds the remaining length of the network layer packet, or the length of the segment is shorter than its minimum length — X'A018FF14'.
- The length of the adaptive rate-based segment exceeds the remaining length of the network layer packet, or the length of the segment is shorter than its minimum length — X'A018FF22'.
- The length of an unrecognized optional segment exceeds the remaining length of the network layer packet — X'A018FFxx', where xx is the key of the unrecognized optional segment.

A019 The RTP connection failed.

FF00 RTP received an optional segment or control vector embedded within the RTP transport header, but the optional segment or control vector is not valid in the current state of the connection. 00 is the key of the unexpected optional segment or control vector. The following error condition was detected:

- The packet was received from the listening partner, but it contained a Connection Setup segment — X'A019FF0D'.

A01A The RTP connection failed.

FF00 RTP received two or more control vectors or optional segments with the same key embedded within the RTP transport header. The number of occurrences of the control vector or optional segment is more than is valid for the current state of the connection. 00 is the key of the duplicated optional segment or control vector. One of the following error conditions was detected:

- The packet contained multiple Connection Setup segments — X'A01AFF0D'.
- The packet contained multiple Status segments — X'A01AFF0E'.
- The packet contained multiple Client Out-of-Band Bits segments — X'A01AFF0F'.
- The packet contained multiple Connection Identifier Exchange segments — X'A01AFF10'.
- The packet contained multiple Switching Information segments — X'A01AFF14'.
- The packet contained multiple Adaptive Rate-Based segments — X'A01AFF22'.

FF80 RTP received two or more control vectors or optional segments with the same key embedded within the RTP transport header. The number of occurrences of the control vector or optional segment is more than is valid for the current state of the connection. 80 is the key of the duplicated optional segment or control vector. One of the following error conditions was detected:

- The packet contained multiple Connection Setup segments — X'A01AFF0D'.
- The packet contained multiple Status segments — X'A01AFF0E'.
- The packet contained multiple Client Out-of-Band Bits segments — X'A01AFF0F'.
- The packet contained multiple Connection Identifier Exchange segments — X'A01AFF10'.
- The packet contained multiple Switching Information segments — X'A01AFF14'.
- The packet contained multiple Adaptive Rate-Based segments — X'A01AFF22'.

A01B The RTP connection failed.

0000 RTP received an optional segment or control vector that did not contain a required control vector. 00 is the key of the missing control vector. 00 is the key of the embedding control vector or optional segment. One of the following error conditions was detected:

- The Network Address (X'05') control vector does not contain a Node Identifier (X'00') control vector — X'A01B0500'.
- The Network Address (X'05') control vector does not contain a Network Identifier (X'03') control vector — X'A01B0503'.
- The Network Address (X'05') control vector does not contain an NCE Identifier (X'26') control vector — X'A01B0526'.

0500 RTP received an optional segment or control vector that did not contain a required control vector. 00 is the key of the missing control vector. 05 is the key of the embedding control vector or optional segment. The following error condition was detected:

- The Network Address (X'05') control vector does not contain a Node Identifier (X'00') control vector — X'A01B0500'.

0503 RTP received an optional segment or control vector that did not contain a required control vector. 03 is the key of the missing control vector. 05 is the key of the embedding control vector or optional segment. The following error condition was detected:

- The Network Address (X'05') control vector does not contain a Network Identifier (X'03') control vector — X'A01B0503'.

0526 RTP received an optional segment or control vector that did not contain a required control vector. 26 is the key of the missing control vector. 05 is the key of the embedding control vector or optional segment. The following error condition was detected:

- The Network Address (X'05') control vector does not contain an NCE Identifier (X'26') control vector — X'A01B0526'.

FF00 RTP received a packet in which the RTP transport header did not contain a required optional segment or control vector. 00 is the key of the missing optional segment or control vector. One of the following error conditions was detected:

- The TCID Assignor bit is set to 1, the Connection Qualifier/Source Identifier Field Present bits are set to 01, but no Network Address (X'05') control vector is present — X'A01BFF05'.

- No active context is found, the Setup Packet bit is set to 1, but no Connection Setup segment is found — X'A01BFF0D'.

FF05 RTP received a packet in which the RTP transport header did not contain a required optional segment or control vector. nn is the key of the missing optional segment or control vector. One of the following error conditions was detected:

- The TCID Assignor bit is set to 1, the Connection Qualifier/Source Identifier Field Present bits are set to 01, but no Network Address (X'05') control vector is present — X'A01BFF05'.
- No active context is found, the Setup Packet bit is set to 1, but no Connection Setup segment is found — X'A01BFF0D'.

FF0D RTP received a packet in which the RTP transport header did not contain a required optional segment or control vector. nn is the key of the missing optional segment or control vector. One of the following error conditions was detected:

- The TCID Assignor bit is set to 1, the Connection Qualifier/Source Identifier Field Present bits are set to 01, but no Network Address (X'05') control vector is present — X'A01BFF05'.
- No active context is found, the Setup Packet bit is set to 1, but no Connection Setup segment is found — X'A01BFF0D'.

FF14 RTP received a packet in which the RTP transport header did not contain a required optional segment or control vector. nn is the key of the missing optional segment or control vector. One of the following error conditions was detected:

- The TCID Assignor bit is set to 1, the Connection Qualifier/Source Identifier Field Present bits are set to 01, but no Network Address (X'05') control vector is present — X'A01BFF05'.
- No active context is found, the Setup Packet bit is set to 1, but no Connection Setup segment is found — X'A01BFF0D'.

FFXX (HPR Sense Data)

Category and modifier (in hexadecimal):

FF00 HPR routing failed or not required.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

0001 HPR routing not required.

0002 HPR routing failed.

FF80 RTP NCB not found or not valid.

0001 RTP NCB not found.

0002 RTP NCB state not valid.

| **FF800003** Route_Setup RTP not found.

| **FF800004** Route_Setup RTP not useable.

| **FF800005** Route_Setup RTP not found.

FF70 RTP ALS not found or address failed.

0001 RTP ALS not found.

0002 RTP ALS network address in use.

0003 RTP ALS CIDCTL add failed.

0004 RTP ALS state change in progress.

0005 RTP ALS CIDCTL ADD NEXTNODE failed.

0006 RDTADD new address failed.

| **FF700007** Our NCE Instance Identifier has changed.

FF60 DLC NCB not found.

0001 DLC NCB not found.

FF50 ADJCP not found.

0001 ADJCP not found.

| **FF500003** VRBLK not found.

FF30 Route setup record not found or has an error.

0001 Route setup record not found.

0002 Route setup record found, but has an error.

FF20 Problem with connection setup signal.

0001 Connection setup signal not present.

FF10 Values not defined.

0001 Route values not defined.

SNA Sense Field Values for RPL-Based Macroinstructions

When the application program or a logical unit receives an exception request, a negative response, or a Logical Unit Status (LUSTAT) request, the associated sense data includes information regarding the reason for the exception condition. There are three types of information that describe the exception condition:

- System-sense information
- System-sense modifier information
- User-sense information.

System sense information indicates one of the five major classes of system-defined errors.

System-sense modifier information indicates one of many specific causes of the error indicated by the system-sense information. Like RTNCD and FDB2, the system-sense and its modifier information together form a specific type of error condition within a general class of error conditions.

User-sense information is generally used when the error condition is detected by the user-written program itself. In general, no particular codes or values are defined by IBM to indicate types of errors. The logical unit must generate its own user-sense information that is understood by other logical units.

The SNA defined values for the sense fields can be found in *SNA Formats*. Additional information is contained in *SNA Format and Protocol Reference Manual: Architectural Logic,* and *SNA Sessions between Logical Units*.

These three types of sense information—system, system modifier, and user—are set in RPL fields. Three fields (one for each type of sense information) are set by the application program when it sends a negative response or LUSTAT request to the logical unit. Three other fields are set by VTAM when the application program receives an exception request, a negative response, or LUSTAT request from the logical unit. These are the names of the six fields, as they would be used on a manipulative or RPL macro:

Sense Information	Received by the Application Program	Sent from the Application Program
System-sense information	SSENSEI	SSENSEO
System-sense modifier information	SSENSMI	SSENSMO
User-sense information	USENSEI	USENSEO

System-Sense Information: The values that are set in the system-sense field are predefined by IBM. These values are as follows (the operands shown here are those used with a MODCB or TESTCB macro; the corresponding hexadecimal value is also shown in parentheses):

Table 1-2. Sense Field Values

System-Sense Values	Meaning
SSENSEI=PATH (X'80')	A path error occurred. The RU could not be delivered to the intended receiver because of a physical problem in the network path or an error in the system-supplied transmission header that accompanied the RU. If no recovery action is possible, terminate the session with the logical unit.
SSENSEI=CPM (X'40')	An unrecoverable request header error occurred.
SSENSEO=CPM (X'40')	The sender did not correctly enforce the current session protocols. Terminate the session with the logical unit.
SSENSEI=STATE (X'20') SSENSEO=STATE (X'20')	A state error occurred in the application program's or logical unit's use of sequence numbers, chaining indicators, bracket indicators, or change-direction indicators. A state error can also occur when a data-flow-control request is issued, data is sent after a Clear request, or when a session-control request is issued before a Clear request. This type of error is recoverable; use Clear, STSN, and SDT requests.
SSENSEI=FI (X'10') SSENSEO=FI (X'10')	A request error occurred. The application program or logical unit cannot handle the request because the request itself is not valid. This error might be recoverable.
SSENSEI=RR (X'08') SSENSEO=RR (X'08')	A request reject occurred. The request was delivered to the intended receiver; it was correctly interpreted, but not handled by the receiver. This might be a recoverable condition.

3270 SNA and Non-SNA Device Sense Fields

The following tables provide information on sense fields for a 3270 SNA or non-SNA device. For additional information, see Chapter 11, “Programming for the IBM 3270 Information Display System” in *VTAM Programming*.

Table 1-3. SNA Sense Information Received at the Application Program

SNA Sense	SNA Definition	Cause for Exception
80*xxyyyy*	Path error	Request could not be delivered [1]
400A0000	No-response not allowed	RESPOND=(NEX,NFME,NRRN)
400B0000	Chaining not supported	CHAIN=(FIRST or MIDDLE or LAST)
20030000	Bracket state error	BRACKET=NBB and no bracket currently exists [2]
20010000	Sequence number error	Session sequence number error
10030000	Function not supported	CONTROL=(DATA or CLEAR)
10000020	Request error	Command rejected
08210000	Session parameter not valid	Parameters not valid in BIND
08130000	Bracket bid reject—No RTR Forthcoming	BRACKET=BB and a bracket already exists [2]
0000*zzzz*	Other exception	Device exception—USENSEI values are defined in Table 1-4 on page 1-133.

Notes:

1. *xx* is defined in *SNA Formats*. For a PU type 1 3270 terminal, *yyyy* can be set to 0010 (intervention required). For a BSC** 3270 terminal attached to a communication controller, *yyyy* represents the NCP system response byte and extended response byte returned for some path error conditions. For information on how these bytes are defined, refer to *NCP and EP Reference Summary and Data Areas*. See the “Bibliography” on page X-3.
2. This sense code applies only if bracket protocols are being used in the session.

Table 1-4. Explanation of USENSEI Information

USENSEI Byte 0								USENSEI Byte 1								Meaning
0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	
.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	Device busy
.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	Unit specify
.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	Device end
.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	Transmission check
.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	Command rejected
.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	Intervention required
.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	Equipment check
.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	Data check or bus-out check
.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	Control check
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	Operation check
x	x	x	x	.	.	.	.	x	x	.	.	.	.	.	.	Reserved

Note: Transmission check is indicated for a channel-related error (such as PCI, channel program check, protection check, channel data check, channel control check, interface control check, or chaining check) for a channel-attached non-SNA 3270.

The application program can disobey the LU type 0 protocols by attempting to send:

- A data-flow-control request
- A response
- A request indicating other than a single-request chain
- A request that does not ask for a definite or exception response type 1 (FME).

If you attempt any of the preceding items, the following results occur, depending upon the actual type of terminal used in the session:

- The SEND macro is rejected with (RTNCD,FDB2)=(X'14',X'47').
- VTAM returns a negative response.
- VTAM ignores the protocol violation, and unpredictable results can occur.

Chapter 2. Return Codes for Macroinstructions

About This Chapter

This chapter provides information about return codes for macros that are displayed in VTAM messages and contains the following sections:

- "ACB OPEN and CLOSE Macroinstruction Error Fields" on page 2-2
- "RPL RTNCD and FDB2 Return Code Combinations" on page 2-6
- "RTNCD and FDB2 Information for LU 6.2" on page 2-28
- "RCPRI and RCSEC Return Codes for LU 6.2" on page 2-29.
- "LAN Channel Station Error Return Codes" on page 2-64

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ACB OPEN and CLOSE Macroinstruction Error Fields

This section contains only error fields for the ACB OPEN and CLOSE macros. For a description of the OPEN and CLOSE macros or for information on other macros, see *VTAM Programming*.

OPEN Macroinstruction Error Fields

A list of the values that can be set in the ERROR field of an ACB follow (ACBERFLG is the actual field name). For a description of the OPEN macro, see “Open Macroinstruction” in *VTAM Programming*.

0 (X'00') OPEN successfully opened this ACB.

4 (X'04') The ACB has been opened.

20 (X'14') OPEN cannot be processed because of a temporary shortage of storage.

36 (X'24') The OPEN ACB failed for one of the following reasons:

- The password specified by the ACB did not match the corresponding password in the APPL entry.
- The ACB did not specify a password and the APPL contains one.
- The security management product determined that the user is not authorized to open the ACB.

70 (X'46') OPEN was issued in an exit routine.

80 (X'50') VTAM has not been included as part of the operating system. The fault lies in the system definition procedures.

82 (X'52') VTAM is included as part of the operating system, but the VTAM operator issued a HALT command, and VTAM has shut down. You cannot attempt to establish a session or communicate with any LUs.

84 (X'54') Either the address supplied in the ACB's APPLID field lies beyond the addressable range of your application program, or no entry is found in the VTAM configuration tables that matches the name indicated by the ACB's APPLID field (or supplied by the operating system). If the OPEN macro is specified correctly, your system programmer might have:

- Failed to include your application program's symbolic name during VTAM definition
- Improperly handled the symbolic name.

Refer to the description of the APPLID operand in the ACB macro.

86 (X'56') A match for your application program's symbolic name is found, but it is for an entry other than an APPL. If you specified this name in the ACB's APPLID field, verify that you have the correct name and handled this name properly (see the APPLID operand of the ACB macro). If the symbolic name is supplied by the operating system, the supplied name is suspect.

88 (X'58') Another ACB, already opened by VTAM, indicates the same application program symbolic name that this ACB does. The system programmer might have assigned the same symbolic name to two application programs. This is valid only if the programs are not open concurrently. Possibly the system operator initiated your program at the wrong time.

90 (X'5A') No entry is found in the VTAM configuration tables that matches the name indicated by the ACB's APPLID field (or supplied by the operating system). This error might have occurred because the VTAM operator deactivated the APPL entry or never created it.

92 (X'5C') VTAM is included as part of the operating system but inactive.

94 (X'5E') The address supplied in the ACB's APPLID field lies beyond the addressable range of your application program.

95 (X'5F') The VTAM transient being used by the application for an OPEN ACB does not match the level of VTAM. The correct level of VTAM is not in the LIBDEF search chain for the application.

96 (X'60') An apparent system error occurred. Either there is a defect in VTAM's logic, or there is an error in your use of OPEN or CLOSE that VTAM did not properly detect. Save all applicable program listings and storage dumps, and consult your IBM programming services representative.

98 (X'62') The APPLID length byte is incorrectly specified.

100 (X'64') The address supplied in the ACB's PASSWD field lies beyond the addressable range of your application program.

102 (X'66') The PASSWD length byte is incorrectly specified.

104 (X'68') The APPLID field in the ACB identifies an application program that is defined with AUTH=PPO in its APPL definition statement. Another program with the same authorization is active. Only one program defined with AUTH=PPO can be active at a time.

112 (X'70') You attempted to open an ACB that is in the process of being closed. This can occur when a VTAM application program job step or subtask is canceled or terminates abnormally. The process of closing the ACB can continue after the job step or subtask has actually terminated. Subsequently, if the job step is restarted or the subtask is reattached before the ACB closing process has been completed, an OPEN macro that is then issued for that ACB fails.

114 (X'72') This code occurs from an open ACB failure for the VTAM CP when VERIFYCP is coded as a start option or for an OPEN ACB failure for an LU 6.2 application with VERIFY=OPTIONAL or VERIFY=REQUIRED for one of the following reasons:

- The security management product is not installed.
- The security management product is not active.
- The security management product resource class APPCLU is not active.
- The application represented by the ACB is not in the security management product Started Procedures Table.

116 (X'74') VTAM rejected the takeover by an alternate application because the original application did not enable persistence, although it is capable of persistence.

118 (X'76') OPEN failed because the specified application is in a recovery pending state and PERSIST=YES is not specified on the ACB that is being opened.

120 (X'78') ACB option mismatch between original application and opening takeover or recovery application. One or more of the following can apply:

- MACRF mismatch—both values must be either LOGON or NLOGON; they cannot differ.
- NQNAMES mismatch—both applications must be specified as NQNAMES=YES or NQNAMES=NO; they cannot differ.
- PERSIST mismatch—both applications must be specified as NQNAMES=YES or NQNAMES=NO; they cannot differ.

- PERSIST mismatch—both applications must be specified as FDX=YES or FDX=NO; they cannot differ.

188 (X'BC') The ACB is in the process of being opened or closed by another request.

244 (X'F4') The application program is not authorized for SRBEXIT=YES. A request to open an ACB whose corresponding APPL definition statement specifies SRBEXIT=YES is rejected unless the application program is APF authorized, or using key 0–7, or in supervisor state.

246 (X'F6') NIB storage address not valid. A CNM authorized application program either failed to supply an NIB pointer in the NIB field of the ACB, or the NIB address supplied lies beyond the addressable range of the application program.

250 (X'FA') NIB options not valid. Either an application program without CNM authorization (specified in its associated VTAM resource definition) supplied an NIB pointer in its ACB; or, if CNM authorized, the application program failed to supply valid NIB options on the NIB macro.

254 (X'FE') Duplicate unsolicited RU routing requested. The CNM routing table indicated that this application program was to receive the same unsolicited formatted requests that were already being routed to another active CNM authorized application program. Only one application program can be actively receiving a particular type of RU (for example, RECFMS) at a time.

CLOSE Macroinstruction Error Fields

A list of the values that can be set in the ERROR field of an ACB follow (ACBERFLG is the actual field name). For a description of the CLOSE macro, see “Close Macroinstruction” in *VTAM Programming*.

ERROR Field	Meaning
0 (X'00')	CLOSE successfully closed the ACB.
4 (X'04')	A CLOSE macro has been successfully issued for this ACB (or the ACB has never been opened in the first place).
20 (X'14')	CLOSE cannot be processed because of a temporary shortage of storage.
64 (X'40')	Outstanding OPNDST OPTCD=ACQUIRE is not released.
66 (X'42')	The ACB has been closed, but an apparent system error has prevented the successful termination of one or more of the sessions that the application program has. It is VTAM's fault; consult your IBM Program Support Representative. The LUs that have not had their sessions terminated are not available to other application programs, and LUs with which you were requesting a session when CLOSE was executed are likewise unavailable. You can notify the VTAM operator (during program execution) of the situation so that the operator can make the LUs available to other application programs.
70 (X'46')	CLOSE was not issued in the mainline program. OPEN and CLOSE cannot be issued in any exit routine.
76 (X'4C')	This application program is authorized to issue VTAM operator commands and receive VTAM messages. A CLOSE was issued, but messages are still queued for it, or VTAM is waiting for a reply, or both. See “Orderly Closing of a Program Operator” in *VTAM Programming* for more information.
80 (X'50')	VTAM is no longer included as part of the operating system.
96 (X'60')	An apparent system error occurred. Either there is a defect in VTAM's logic, or there is an error in your use of OPEN or CLOSE that VTAM did not properly detect. Save all applicable program listings and storage dumps, and consult your IBM programming services representative.
112 (X'70')	CLOSE was issued while the program was in the process of terminating abnormally. The CLOSE is not necessary because the ACB is closed by VTAM when the task terminates.
188 (X'BC')	The ACB is in the process of being opened or is in the process of being closed by another request.

RPL RTNCD and FDB2 Return Code Combinations

This section describes all the RTNCD-FDB2 combinations that can be set in an RPL when it is posted complete. See “Return Code Posting” in *VTAM Programming* for additional information.

RTNCD	FDB2	Explanation
0	0	Normal completion or request accepted

The operation has been completed normally or the request has been accepted.

RTNCD	FDB2	Explanation
0	5	Input area too small

You issued INQUIRE, INTRPRET, or OPNDST OPTCD=RESTORE and specified an input work area that is too small. VTAM has placed the required length (in bytes) in the RPL's RECLEN field (for INQUIRE) or ARECLEN (for INTRPRET). No data has been placed in the work area.

Obtain a work area that is at least as long as the value set in RECLEN or ARECLEN, place the length in the AREALEN field (for INQUIRE) or AAREALN (for INTRPRET), and reissue INQUIRE or INTRPRET.

RTNCD	FDB2	Explanation
0	6	No input available

A RECEIVE OPTCD=NQ was issued and there was no input of the specified RTYPE available to satisfy the macroinstruction, or a RCVCMD OPTCD=NQ was issued and there was no input available to satisfy the macroinstruction.

RTNCD	FDB2	Explanation
0	7	INQUIRE information not available

One of the following has occurred:

- You issued INQUIRE OPTCD=LOGONMSG to obtain user data (a logon message) from a queued CINIT and there is no queued CINIT.
- You issued INQUIRE OPTCD=SESSPARM to obtain session parameters from a queued CINIT and there is no queued CINIT.
- You issued INQUIRE OPTCD=SESSKEY to obtain the session cryptography key, and there is no session cryptography key.
- You issued INQUIRE OPTCD=DEVCHAR for a cross-domain resource.
- You issued INQUIRE OPTCD=TOPLOGON for queued CINITs, and there are no queued CINITs.
- You issued INQUIRE OPTCD=CIDXLATE for a session that has not been established.
- You issued an INQUIRE OPTCD=USERVAR and no USERVAR was defined.
- You issued an INQUIRE OPTCD=PERSESS, and no record application program interface sessions are pending recovery.

The problem might be due to an incorrectly set NAME field in the NIB, an CID that is not valid in the NIB or RPL, a failure on the part of the system programmer to create the appropriate entry during VTAM definition, or a VARY command issued by the VTAM operator that deactivated the entry.

RTNCD	FDB2	Explanation
0	8	OPNDST OPTCD=ACQUIRE, SIMLOGON, or CLSDST OPTCD=PASS failed

An OPNDST OPTCD=ACQUIRE or SIMLOGON OPTCD=NQ failed for one of the following reasons: the requested logical unit is at its session limit or is not enabled for sessions in which it is to be the SLU. See Chapter 5, “Establishing and Terminating Sessions with Logical Units” in *VTAM Programming* for a description of OPNDST and SIMLOGON.

A SIMLOGON OPTCD=Q failed because the requested logical unit is at its session limit and at least one of its current sessions is with the application program that issued the SIMLOGON.

A CLSDST OPTCD=PASS failed for one of two reasons. There is already a queued session between the logical unit being passed and the target primary logical unit, or you attempted to initiate or pass the session to the same PLU APPL.

RTNCD	FDB2	Explanation
0	9	OPNDST OPTCD=ACCEPT denied (no queued CINITs) or OPNDST OPTCD=RESTORE denied (no sessions restored)

You attempted to accept a session and indicated that your request should be rejected if no pending active session is waiting to be accepted (OPTCD=NQ). The request is rejected because no CINIT is queued for your application program.

An OPNDST OPTCD=RESTORE failed because the sessions that are requested are not pending recovery. None of the sessions specified by the NIBLIST are restored.

RTNCD	FDB2	Explanation
0	10(X'0A')	Application program not connectable

You issued INQUIRE OPTCD=APPSTAT to check an application program's ability to establish sessions. The application program is in an inactive, non-connectable state because the VTAM operator deactivated it. Therefore, the application program is not available for sessions.

RTNCD	FDB2	Explanation
0	11(X'0B')	Conditional Completion for APPCCMD

Some type of error might have occurred on an APPCCMD macroinstruction. For further problem determination, refer to the primary and secondary return codes in the RPL extension. See Chapter 2, “Return Codes” in the *VTAM Programming Reference for LU 6.2* for further information.

RTNCD	FDB2	Explanation
0	13(X'0D')	Additional sessions pending recovery

You have issued INQUIRE PERSESS and specified an input work area that is too small. VTAM fills the work area with as much information as possible and places the length used in the RPL's RECLEN. The INQUIRE must be reissued to recover the remainder of the information.

RTNCD	FDB2	Explanation
4	3	Exception request received

An exception request has been received. The reason for the exception is contained in the RPL's SSENSEI, SSENSMI, and USENSEI fields. If a negative response has not been sent to a request of this chain and if this request (the exception request) requires a response, move the input sense fields to the output sense fields and send a negative response. All requests in the current chain that have been received by the application program should be discarded. If the current request did not end the chain, issue RECEIVE macroinstructions with OPTCD=TRUNC and AREALEN=0 until CHAIN=LAST or CONTROL=CANCEL is received. No responses should be sent for any request in the rest of the chain.

RTNCD	FDB2	Explanation
4	4	Negative response received

The logical unit (or some other node in the network) has sent a response indicating that an exception condition was detected for one of the requests that the application program sent on this session. The SEQNO field indicates the sequence number of the request to which the negative response applies. The SSENSEI, SSENSMI, and USENSEI fields indicate the reason for the exception condition. See “RPL Fields Set by VTAM” in *VTAM Programming* for more information on the SEQNO field, and “SNA Sense Fields” in *VTAM Programming* for more information on the SSENSEI, SSENSMI, and USENSEI fields.

If the request with which the negative response is associated is part of an incomplete chain currently being transmitted to the logical unit, the application program should terminate the chain by issuing a SEND STYPE=REQ, CONTROL=DATA, CHAIN=LAST or a SEND STYPE=REQ, CONTROL=CANCEL to indicate that the logical unit can stop discarding the requests it is receiving. Refer to Chapter 6, “Communicating with Logical Units” *VTAM Programming* for information about the use of STSN and CLEAR to alter sequence numbers. Also see the discussion of (RTNCD,FDB2)=(12,13) in this appendix.

RTNCD	FDB2	Explanation
4	5	Symbolic name known in this SSCP by its network-qualified name only

A real-to-symbolic translation request is made, and NIBNET is filled in with a network identifier, but VTAM cannot provide a symbolic name. VTAM knows this resource only by its network-qualified name; there is no symbolic name that represents this resource. Do one of the following:

- Use the network-qualified name
- Define a symbolic name to represent this resource.

RTNCD	FDB2	Explanation
8	0	Temporary storage shortage

VTAM is temporarily unable to secure enough storage to process the request. The request can usually be reissued (with EXECRPL, for example). For applications running at a priority near to or higher than VTAM's priority, the application should wait a brief time before retrying this.

In certain cases, the macroinstruction processing has not gotten far enough to have done significant work, and the request can be reissued. In other cases, the processing might have gone beyond some irreversible point before failing; as a result, the request cannot simply be reissued. For example, if the LOGON exit routine has been scheduled with a CINIT request and OPNDST OPTCD=ACCEPT is issued, the OPNDST operation can fail before responding to the CINIT, in which case the OPNDST can simply be reissued. If the response to CINIT had been sent, however, and then storage could not be obtained, the OPNDST request could not be reissued as there would no longer be a CINIT to accept. In this case, the application program might wish to initiate another session between itself and the LU, perhaps by using SIMLOGON. These two cases can be distinguished by a bit in the NIB; when the OPNDST OPTCD=ACCEPT is posted, NIBNACLQ is 1 if the response to CINIT is sent; otherwise it is 0.

RTNCD	FDB2	Explanation
12(X'0C')	10(X'0A')	Request canceled by RESETSR

This RECEIVE operation has been canceled by a RESETSR macroinstruction issued by another part of your application program.

RTNCD	FDB2	Explanation
12(X'0C')	11(X'0B')	Request canceled because the session has been terminated

The request has been canceled because the session was terminated. Session termination always cancels any pending requests for the session, and returns this return code in the RPL. See “Session Outage Notification” *VTAM Programming* for a list of the possible causes of session termination.

This return code is also used when an OPNDST OPTCD=(ACCEPT,SPEC,Q) is canceled by CLSDST.

RTNCD	FDB2	Explanation
12(X'0C')	12(X'0C')	Request canceled by CLEAR request

While the RPL-based request was being processed, a CLEAR request was sent or received on the session. This stops all data flow and cancels all pending communication requests on the session. The CLEAR request might have been sent by your application program (SESSIONC macroinstruction), or the request might have been sent on behalf of your application program by VTAM. The CLEAR request might also have been sent from the other end of the session.

RTNCD	FDB2	Explanation
12(X'0C')	13(X'0D')	Prior exception in chain detected

A series of chained requests was being sent to the logical unit and a negative response was returned for one of them. All subsequent SEND macroinstructions for that chain are posted complete with this return code; however, for each such SEND, the associated request unit is sent on the session to the session partner where it should be discarded.

RTNCD	FDB2	Explanation
12(X'0C')	14(X'0E')	Request cancelled - POA queue limit exceeded

The POA issued a SENDCMD after it reached its queue limit (POAQLIM on the APPL definition statement). Subsequent SENDCMDs complete with this return code until you receive all of the messages in the queue. You can empty the message queue by issuing RCVCMD OPTCD=NQ (no queue) until an RCVCMD completes with a return code and feedback of X'0006'. A SENDCMD now returns successfully.

RTNCD	FDB2	Explanation
16(X'10')	0	Logical unit not available, application program status not available, queued BIND not available, or incorrect dial parameters

This code is set for one of the following reasons:

- You are attempting to establish a session with a logical unit that is not active.

- You are attempting to pass a logical unit to a primary logical unit that is not active (or is in the process of being deactivated).
- You are attempting to issue an OPNSEC macroinstruction and there is no queued BIND request to respond to.
- You are attempting to determine the status of an application program that is in another domain, the status is not available, and your application program has to proceed without it.
- You issued a SIMLOGON macroinstruction that specifies dial parameters for a nonswitched PU.
- The dial parameters specified in the SIMLOGON macroinstruction do not match the original dial parameters.
- You issued a macroinstuction and a resource, such as a network address or storage, was not available. A sense code is returned in the RPL containing specific information.

The RPL system-sense (SSENSEI), the system-sense modifier (SSENSMI), and the user-sense (USENSEI) can contain a more detailed explanation of the failure.

RTNCD	FDB2	Explanation
16(X'10')	1	OPNDST failed

OPNDST failed; if a session had been established by the OPNDST, it has now been terminated. Some reasons for OPNDST failure are as follows:

- No network path could be obtained. For example, there might have been a failure of the virtual route or route extension, or the operator might have deactivated a network component along the path.
- A dial connection was not completed.
- A negative response to a CRV request was received.
- A request rejected response to a BIND request was received.
- The logical unit does not exist.
- A BIND response that is not valid was received; for example, a negotiable BIND response was received for a non-negotiable BIND request.
- OPNDST OPTCD=ACQUIRE specifies dial parameters for a nonswitched PU.
- The dial parameters specified in the OPNDST OPTCD=ACQUIRE do not match the original dial parameters.

The SSENSEI, SSENSMI, and USENSEI fields are set; these fields are described in “SNA Sense Field Values for RPL-Based Macroinstructions” on page 1-130.

RTNCD	FDB2	Explanation
16(X'10')	2	Logical unit inhibited for sessions

You attempted to initiate a session and one of the logical units in the requested session is inhibited. For example, a VTAM application program is inhibited for sessions if it issues SETLOGON OPTCD=QUIESCE or has never issued SETLOGON OPTCD=START. Refer to Chapter 5, “Establishing and Terminating Sessions with Logical Units” in *VTAM Programming* for more information.

RTNCD	FDB2	Explanation
16(X'10')	3	HALT issued

The VTAM operator has issued a HALT command. Depending on the type of HALT, certain macroinstructions can no longer be issued by your application program. Refer to “TPEND Exit Routine Is Entered” in *VTAM Programming* for more information.

RTNCD	FDB2	Explanation
16(X'10')	5	Request or response encryption failure

Encryption has failed while:

- Sending an FM data request
- Sending the BIND response during OPNSEC processing
- Sending the CRV request during OPNDST processing.

RTNCD	FDB2	Explanation
16(X'10')	7	Request canceled by VARY command

The communication operation has been canceled because the VTAM operator deactivated a necessary portion of the path while the macroinstruction was being processed. If a LOSTERM exit routine is available, it has been scheduled. You can no longer communicate with the LU, and you should issue CLSDST to terminate its session with your application program.

RTNCD	FDB2	Explanation
16(X'10')	9	Unconditional Terminate or character-coded logoff received

The logical unit has sent an unconditional Terminate request or a character-coded logoff that is a request for unconditional session-termination. No further communication on the session is possible. CLSDST must be issued.

RTNCD	FDB2	Explanation
16(X'10')	10(X'0A')	VTAM error

An error occurred in VTAM itself. No further attempts to establish or terminate a session with the logical unit should be made.

RTNCD	FDB2	Explanation
16(X'10')	13(X'0D')	VTAM inactive for your ACB

The association between VTAM and your application program (ACB) that was established with OPEN has been broken; the ACB is in the process of being closed. This might have occurred because you have elsewhere issued a CLOSE that has not yet completed, or it might have occurred because VTAM has become inactive, or a VARY INACT was issued for your application program.

RTNCD	FDB2	Explanation
16(X'10')	14(X'0E')	Request abnormally terminated

VTAM has abnormally terminated a request because of an error detected while processing the request or because of an error in the associated session, task, or address space (for example, an abend). See “Isolation of Errors ” in *VTAM Programming* for more information about error isolation and recovery.

RTNCD	FDB2	Explanation
16(X'10')	15(X'0F')	Buffers filled

Previously VTAM had received an RU; the application program did not have an appropriate EXLST exit routine or outstanding RECEIVE for the RU and there was no buffer space left for VTAM to queue the RU. Under these circumstances, VTAM discards that RU and any other RUs queued for the session and schedules the LOSTERM exit routine (if there is one) with reason code 36. If appropriate for the TS Profile for this session, a Clear is sent to the session partner. In all cases, the end of the session that experienced the buffer shortage is put into data-traffic-reset state (at least momentarily). Any SEND or RECEIVE issued while the session is in this state is rejected with (RTNCD,FDB2)=(X'10',X'0F'). This mode of operation continues until a Start Data Traffic response is processed (or until the Clear function completes, if SDT is not appropriate for the TS profile).

RTNCD	FDB2	Explanation
16(X'10')	17(X'11')	SDT failure on OPNDST

A negative response was sent by a logical unit in reply to a Start Data Traffic (SDT) request. The OPNDST was not completed successfully. The SSENSEI, SSENSMI, and USENSEI fields are set; these fields are described in “SNA Sense Field Values for RPL-Based Macroinstructions” on page 1-130.

RTNCD	FDB2	Explanation
16(X'10')	18(X'12')	Macroinstruction failure, sense included

A REQSESS, TERMSESS, or OPNSEC has failed. A sense code (SSENSEI, SSENSMI, and USENSEI field) is returned in the RPL for the failing macroinstruction.

RTNCD	FDB2	Explanation
16(X'10')	19(X'13')	Attempt to start LU 6.2 session request rejected

An LU 6.2 application has tried to start an LU 6.2 session independent of VTAM. No pending sessions have been disturbed. This occurs when an OPNDST is issued with an LU 6.2 user-specified BIND.

RTNCD	FDB2	Explanation
16(X'10')	20(X'14')	Attempt to start LU 6.2 session pending session terminated

An LU 6.2 application has tried to start an LU 6.2 session independent of VTAM. The pending session has been terminated. This occurs when the LOGMODE specified on an OPNDST resolves to an LU 6.2 BIND or when OPNSEC is issued for an LU 6.2 BIND.

RTNCD	FDB2	Explanation
16(X'10')	21(X'15')	An APPCCMD must be issued

An OPNDST or CLSDST has been issued for a pending LU 6.2 session. An APPCCMD CONTROL=OPRCNTL, QUALIFY=ACTSESS or QUALIFY=DACTSESS macroinstruction must be issued for this session. See “APPCCMD CONTROL=OPRCNTL, QUALIFY=ACTSESS” or “APPCCMD CONTROL=OPRCNTL, QUALIFY=DACTSESS” in the *VTAM Programming Reference for LU 6.2* for more information.

RTNCD	FDB2	Explanation
16(X'10')	22(X'16')	Specified LU is nonswitched

The application issues a SIMLOGON or OPNDST OPTCD=ACQUIRE macroinstruction using the application supplied dial-out function. The specified LU is nonswitched and the request failed.

RTNCD	FDB2	Explanation
16(X'10')	23(X'17')	Encryption not allowed

You attempted to request encryption on a send, but session does not support encryption.

RTNCD	FDB2	Explanation
16(X'10')	24(X'18')	Sysplex is inaccessible

You attempted to use either the INQUIRE OPTCD=SESSNAME, SETLOGON OPTCD=GNAMEADD, SETLOGON OPTCD=GNAMEDEL, SETLOGON OPTCD=GNAMESUB, OPNDST, OPNSEC, or the CHANGE OPTCD=ENDAFFIN macroinstruction, but the coupling facility for this host is inaccessible.

RTNCD	FDB2	Explanation
16(X'10')	25(X'19')	Host is not member of Sysplex

The application issued either the INQUIRE OPTCD=SESSNAME, the CHANGE OPTCD=ENDAFFIN, or the SETLOGON OPTCD=GNAMEADD|GNAMEDEL|GNAMESUB macroinstruction, but the coupling facility for this host is inaccessible. The coupling facility may be inaccessible because:

- A coupling facility does not exist.
- A CFRM policy for the required coupling facility structure was not active.
- VTAM is not defined as an APPN node.
- VTAM has lost connectivity to the required coupling facility structure.

RTNCD	FDB2	Explanation
16(X'10')	26(X'1A')	SUSPEND failed

VTAM attempted to SUSPEND an RPL request issued in either cross-memory mode or in synchronous SRB mode with OPTCD=KEEPSRB specified. The attempt failed.

RTNCD	FDB2	Explanation
16(X'10')	27(X'1B')	RESUME failed

VTAM attempted to RESUME an RPL request issued in either cross-memory mode or in synchronous SRB mode with OPTCD=KEEPSRB specified. The attempt failed. VTAM is unable to post the request complete. If the application has a LOSTERM exit, it will be scheduled with a reason code of 44. For more information about the LOSTERM exit, see “LOSTERM Exit Routine” in *VTAM Programming* The RPL is now available for reuse.

RTNCD	FDB2	Explanation
16(X'10')	28(X'1C')	OS level does not support requested function

A macroinstruction request required the use of an operating system service which is not supported by the active operating system level. For example, a cross-memory macroinstruction request was issued, but the
| MVS/ESA level was below V4R1.

RTNCD	FDB2	Explanation
20(X'14')	0	VSAM request

The RPL contains a VSAM or other non-VTAM request code. No ECB has been posted and no RPL exit routine has been scheduled.

RTNCD	FDB2	Explanation
20(X'14')	2	Zero EXIT field

The RPL indicates that the ECB-EXIT field is being used as an EXIT field, but the RPL exit routine address in it is 0. No RPL exit routine has been scheduled.

RTNCD	FDB2	Explanation
20(X'14')	3	Zero ECB field

The RPL indicates that the ECB-EXIT field is being used to point to an external ECB, but the address in the field is 0. No ECB has been posted.

RTNCD	FDB2	Explanation
20(X'14')	4	Inactive RPL checked

CHECK was issued for an inactive RPL (an RPL that had been posted complete and for which CHECK has already been issued successfully). All RPL-based macroinstructions must use an inactive RPL. All CHECK macroinstructions, however, must use an active RPL; an RPL cannot be checked twice.

RTNCD	FDB2	Explanation
20(X'14')	16(X'10')	Control block not valid

The RPL's ACB field does not contain the address of a valid ACB or the ACB is closed. This can mean that the ACB field of the RPL was incorrectly set or the ACB has been destroyed.

RTNCD	FDB2	Explanation
20(X'14')	17(X'11')	RTYPE not valid

A RECEIVE has been issued with the RTYPE field set to NDFSYN, NDFASY, and RESP.

RTNCD	FDB2	Explanation
20(X'14')	18(X'12')	CLSDST in progress

At the time this macroinstruction was executed, a CLSDST request was pending for the session. The CLSDST request takes priority, and the request that received this return code cannot be honored.

RTNCD	FDB2	Explanation
20(X'14')	19(X'13')	CID not valid

The RPLARG field or the NIBCID field does not contain a valid CID, or a valid CID was issued with the wrong ACB, or INTRPRET is being used for a cross-domain LU.

You might have inadvertently modified the field, initially failed to set it, or used the CID of a session that no longer exists.

Another possibility is that you violated the following rule: when placing a CID into the RPLARG field, always use the ARG keyword (ARG=(6), for example), and when placing an NIB address into the RPL's NIB field, always use the NIB keyword (for example, NIB=(6)). Because these two fields occupy the same 4 bytes in the RPL, VTAM can distinguish between an NIB address and a CID only through your use of the ARG or NIB keyword. Thus, the presence of this return code could mean that you placed an NIB address in the RPL with the ARG keyword, and VTAM has rejected your CID as not valid.

This feedback information is also used when a CID is specified for INTRPRET, and the LU implied by the CID is in another domain.

RTNCD	FDB2	Explanation
20(X'14')	30(X'1E')	Data address or length not valid

A request was issued that specified a work area address that is beyond the addressable range of your application program. Here a work area is defined to be any storage area addressed by an RPL operand, for example, the areas referenced by AREA and AAREA.

Check the work area address and work area length fields in the RPL for an incorrect setting. See the RPL macroinstruction description in “RPL-Create a Request Parameter List” in *VTAM Programming* to determine which fields must point to valid work areas for each macroinstruction.

If your application program resides in an authorized library, check for correct load module characteristics.

RTNCD	FDB2	Explanation
20(X'14')	35(X'23')	Request type not valid

When an RPL-based macroinstruction is issued, VTAM sets the REQ field in the RPL to indicate the type of macroinstruction that is using the RPL. The presence of this return code indicates that you modified that code before the requested operation completed. To avoid this and other related errors, never modify an RPL while it is in use. Compare with VSAM request, (RTNCD,FDB2)=(X'14',X'00').

RTNCD	FDB2	Explanation
20(X'14')	36(X'24')	Request for address space not valid

You attempted to issue one of the following macroinstructions in other than the session address space: RECEIVE OPTCD=SPEC, RESETSR, SEND, or SESSIONC (except request rejected response to BIND).

RTNCD	FDB2	Explanation
20(X'14')	59(X'3B')	NFME-NRRN response

You attempted to send a response with the RESPOND field set to NFME and NRRN. A response must be identified as FME, RRN, or both; in effect, you have identified the response as neither.

RTNCD	FDB2	Explanation
20(X'14')	60(X'3C')	Previous macroinstruction outstanding

You issued a SEND POST=SCHED, a SEND for an expedited data-flow-control request, or a SESSIONC macroinstruction before a previous macroinstruction of the same type had been completed. Only one macroinstruction of the three preceding types can be outstanding on a session at a time. After the previous macroinstruction has been completed, this macroinstruction can be reissued.

RTNCD	FDB2	Explanation
20(X'14')	64(X'40')	CONTROL not valid

You modified the bits in the CONTROL field, or you used a CONTROL value for a SESSIONC macroinstruction that was not BIND, RQR, SDT, CLEAR, STSN, or SWITCH.

RTNCD	FDB2	Explanation
20(X'14')	65(X'41')	Data traffic not allowed

You attempted to communicate on a session for which no SDT request had been sent or for which a CLEAR is in progress. For certain TS profiles, until an SDT request/response exchange has occurred on the session, no traffic flow is possible; only SDT, Set and Test Sequence Numbers (STSN), Request Recovery (RQR), and Clear requests can be exchanged. Every time a Clear request is sent on a session, a new SDT request might be required before traffic flow can resume (this depends upon the transmission services profile used). For further information, refer to “Controlling Flow” in *VTAM Programming*

RTNCD	FDB2	Explanation
20(X'14')	66(X'42')	STYPE for SESSIONC not valid

STYPE=RESP has been specified for a SESSIONC CONTROL=CLEAR or a SESSIONC CONTROL=RQR macroinstruction. Only STYPE=REQ is valid. Also, if the NIB used to establish the session specified SDT=SYSTEM, then STYPE=RESP is not valid for SESSIONC CONTROL=SDT.

RTNCD	FDB2	Explanation
20(X'14')	68(X'44')	RESPLIM exceeded

The number of outstanding SEND POST=RESP macroinstructions for a session exceeds the RESPLIM value set in the NIB used to establish the session.

RTNCD	FDB2	Explanation
20(X'14')	71(X'47')	3270 SEND option not valid

The RPL specified by your LU type 0 3270 SEND macroinstruction had one or more of the following fields not valid: STYPE, RESPOND, CHAIN, or CONTROL. See “Exception Conditions and Sense Information” in *VTAM Programming* for more information about exception conditions.

If the RPL was last used for a RECEIVE for the 3270, check the RESPOND field first; you might have failed to reset the field following the RECEIVE (RECEIVE sets the RESPOND field to (NEX,NFME,NRRN) in this case).

RTNCD	FDB2	Explanation
20(X'14')	72(X'48')	Session-control protocol violation

Protocol violations indicated are as follows:

- The PLU sent an SDT request while not in data-traffic-reset state, or the SDT sent was not allowed by the TS profile.
- The PLU sent a Clear request, and a previous Clear request has been sent and has not completed, or the Clear request was not allowed by the TS profile.
- The PLU sent an STSN request while not in data-traffic-reset state, or the STSN request was not allowed by the TS profile.
- The PLU sent an RQR request, and the RQR request was not allowed by the TS profile.
- The SLU sent an SDT response and any previously received SDT request had already been responded to, or an SDT request had not been received.

For more information, refer to “Controlling Flow” in *VTAM Programming*

RTNCD	FDB2	Explanation
20(X'14')	73(X'49')	STSN action/result code not valid

One of the following applies:

- You attempted to send a Set and Test Sequence Numbers (STSN) request and set the IBSQAC or OBSQAC fields (or both) to some value other than SET, TESTSET, IGNORE, or INVALID.
- You attempted to send an STSN response and set the IBSQAC or OBSQAC field (or both), to some value other than TESTPOS, TESTNEG, INVALID, or RESET.
- You attempted to send a result code that is not a valid response to the action code.

Refer to “SESSIONC-Send a Session-Control Request or Response” in *VTAM Programming* for more information.

RTNCD	FDB2	Explanation
20(X'14')	74(X'4A')	Installation-wide exit routine was not available

You issued an INTRPRET macroinstruction; VTAM has located the appropriate entry in the interpret table, and found that the system programmer has specified a logon-interpret exit routine to do the interpret function. That routine, however, has not been loaded.

RTNCD	FDB2	Explanation
20(X'14')	75(X'4B')	INTRPRET sequence or LOGMODE not valid, or cryptographic incompatibility

You issued an INTRPRET macroinstruction—one of the following might apply:

- VTAM cannot locate an entry in the interpret table that corresponds to the sequence you provided.
- You might have inadvertently modified the sequence or the address in the RPL's AREA field that points to the sequence.
- The system programmer might have failed to properly define the entry in the interpret table.

After your application program has been tested and debugged and you have eliminated the possibility of the three situations listed above, you can assume that the terminal operator or program that initiated the logon must have passed an invalid logon sequence to your application program.

You issued an INQUIRE, OPNDST, SIMLOGON, REQSESS, or CLSDST OPTCD=PASS macroinstruction. Either the NIB for this request specified a logon mode name that could not be found in the logon mode table for the logical unit named in that NIB, or the SSCP discovered that cryptography had been specified for the requested session, but at least one of the logical units in the requested session did not support cryptography.

RTNCD	FDB2	Explanation
20(X'14')	76(X'4C')	Search argument for INQUIRE or INTRPRET not valid

You issued INQUIRE or INTRPRET, and failed to properly provide VTAM with the identity of the pending active session, logical unit, or application program:

- INTRPRET was issued and the name in the NIB was not that of a logical unit.
- INQUIRE (OPTCD=APPSTAT) was issued and one of the following conditions exists:
  - The name is not that of an application program.
  - The application program is a cross-domain resource, and the SSCP that owns the resource does not support INQUIRE (OPTCD=APPSTAT).
  - The application program is a cross-domain resource, and no active route exists to the host that owns the application program.
- INQUIRE OPTCD=TERMS was issued and the name was not that of a resource (such as an LU, PU, CLUSTER, or CDRSC) in the VTAM configuration tables.
- INQUIRE OPTCD=DEVCHAR was issued and the device characteristics were not available (perhaps because the logical unit was in another domain and there was no appropriate CINIT queued for the application program).
- INQUIRE OPTCD=LOGONMSG was issued and there was no appropriate CINIT queued for the application program.
- INQUIRE OPTCD=SESSPARM was issued with LOGMODE=0 in the NIB, and there was no appropriate CINIT queued for the application program.
- INQUIRE OPTCD=NQN was issued and one of the following applies:
  - The resource does not exist.
  - The resource is cross-domain an there is no active route to it.

For further information, refer to the INQUIRE macroinstruction description in “INQUIRE-Obtain Logical Unit Information or Application Program Status” in *VTAM Programming*.

Assuming that the system programmer properly defined the entry in the VTAM configuration tables for the logical unit, you have probably: (1) failed to set a valid symbolic name in the NIB's NAME field or (2) correctly issued INQUIRE OPTCD=SESSPARM or INQUIRE OPTCD=DEVCHAR but the session has been terminated.

RTNCD	FDB2	Explanation
20(X'14')	77(X'4D')	No interpret table

You issued an INTRPRET macroinstruction, but there is no interpret table for the logical unit. The system programmer might have failed to include an interpret table for this logical unit during the VTAM definition process or the logical unit might be in another domain.

RTNCD	FDB2	Explanation
20(X'14')	78(X'4E')	Use of an NIB list not valid

You issued OPNDST OPTCD=ACCEPT without setting the NIB's LISTEND field to YES, or you specified a NIB list in which more than one NIB indicated PROC=NEGBIND.

RTNCD	FDB2	Explanation
20(X'14')	79(X'4F')	OPTCD setting not valid

The OPNDST or INQUIRE request fails because bits in the OPTCD field have been incorrectly set. From the OPNDST and the INQUIRE option code settings, you must specify only one value for the mutually exclusive sets of option codes. Because you cannot cause the field to be incorrectly set by using VTAM macroinstructions, you might have inadvertently modified the OPTCD field with assembler instructions.

RTNCD	FDB2	Explanation
20(X'14')	80(X'50')	RPL field not valid

The OPNDST, CLSDST, SIMLOGON, or REQSESS failed because the bits in the RPL's OPTCD or AAREA field were found to be not valid.

If an OPNDST or SIMLOGON failed, the particular bits that have been incorrectly set are those that form the CONANY-CONALL option code. This return code does not mean that the CONANY option was erroneously used in place of CONALL, or vice versa; it means that neither CONALL nor CONANY is indicated in the OPTCD field. Because you cannot cause the field to be incorrectly set in this manner by using VTAM macroinstructions, you might have inadvertently modified the OPTCD field with assembler instructions.

If a REQSESS failed, either OPTCD=NQ was not specified or the AAREA field of the RPL was not set to zero.

If a CLSDST failed, OPTCD=SENSE was specified and a zero sense was provided in the SSENSEO, SSENSMO, USENSEO fields of the RPL. A zero sense is not permitted for CLSDST OPTCD=SENSE.

RTNCD	FDB2	Explanation
20(X'14')	81(X'51')	OPNDST OPTCD=ACCEPT and SIMLOGON not allowed

You attempted to issue OPNDST OPTCD=ACCEPT to accept a CINIT for a session with a logical unit, or to issue SIMLOGON to initiate a session. However, these operations cannot be performed because of one of the following:

- The ACB was opened with MACRF=NLOGON.
- SETLOGON OPTCD=QUIESCE was issued and CINITs are pending.
- SETLOGON OPTCD=QUIESCE was issued and no matching CINIT was found.

RTNCD	FDB2	Explanation
20(X'14')	82(X'52')	NIB not valid

The request failed because there is no NIB at the location indicated in the RPL's NIB field.

RTNCD	FDB2	Explanation
20(X'14')	83(X'53')	Logical unit not found

The symbolic name you supplied in the NIB's NAME field or indicated by the RPL's AAREA field does not have a corresponding entry in the VTAM configuration tables. This can occur for one of the following reasons:

- You failed to set the NAME field correctly.
- The system programmer did not include the entry in the VTAM configuration tables during VTAM definition.
- The VTAM operator has not activated the major node containing the application program that issued the macroinstruction.
- The VTAM operator has not activated the major node containing the resource named in the NIB (in a cross-domain environment).
- A dynamically created definition for a cross-domain LU has been deleted after lack of use for a defined period of time.
- Contact with the resource was lost and the definition of the resource was subsequently deleted from the VTAM configuration tables.
- You issued either SETLOGON OPTCD=GNAMEADD, SETLOGON OPTCD=GNAMESUB, SETLOGON OPTCD=GNAMEDEL, INQUIRE OPTCD=SESSNAME, or CHANGE OPTCD=ENDAFFIN and one of the names you supplied is not valid.

If you were using an NIB list, no sessions have been established.

RTNCD	FDB2	Explanation
20(X'14')	85(X'55')	One of the following is true: • Application program is not authorized. • Application program name is not available. • Task association is not specified. • Application is not authorized to supply dial parameters. • PU is not authorized to accept dial parameters. • You must issue a send RPL.

- You attempted to acquire a logical unit (SIMLOGON or OPNDST), but the installation has denied you authorization to do so. The system programmer might have specified during VTAM definition that your application program is not authorized to acquire any logical units. If you are authorized to acquire logical units and you still receive this return code, this means that an authorization exit routine has been invoked and has determined that you cannot acquire the specific logical unit indicated in your request.
- You attempted to initiate a session, but the authorization exit routine has denied you authorization.
- You issued an INTRPRET macroinstruction; VTAM located the appropriate entry in the interpret table and found that the installation has specified an exit routine to convert the input sequence into an output sequence. That routine was loaded, but it failed to do the conversion.
- You issued one of the following macroinstructions in SRB mode without specifying the required task association: CLSDST, INQUIRE, INTRPRET, OPNDST, OPNSEC, REQSESS, RCVCMD, SENDCMD, SETLOGON, SIMLOGON, TERMSESS. See “Authorized Path ” in *VTAM Programming*.
- An application that is not authorized to supply dial parameters attempted to supply dial parameters, or a PU that is not authorized to accept dial parameters attempted to accept dial parameters.

Refer to “AUTH” in the *VTAM Resource Definition Reference* for information about coding an application program major node (the AUTH operand of the APPL definition statement).

RTNCD	FDB2	Explanation
20(X'14')	87(X'57')	MODE field not valid

You issued an OPNDST or OPNSEC macroinstruction and failed to set the NIB's MODE field to RECORD.

RTNCD	FDB2	Explanation
20(X'14')	94(X'5E')	CLSDST OPTCD=PASS not authorized

CLSDST OPTCD=PASS is a function whose use is authorized by the installation. You attempted to use this function, but the installation has not authorized you to pass logical units to other primary logical units. This CLSDST macroinstruction should have been issued with RELEASE in effect, not PASS.

Refer to “AUTH” in the *VTAM Resource Definition Reference* for a description of the AUTH operand of the APPL definition statement.

RTNCD	FDB2	Explanation
20(X'14')	96(X'60')	LU name for CLSDST, SESSIONC, or OPNSEC not valid

You attempted to terminate a session with a logical unit that is not in session with your application program, or had no CINIT queued for your application program. This return code applies to CLSDST used with a logical unit's symbolic name.

You issued a SESSIONC macroinstruction to send a request rejected response to BIND, but the LU name field in the NIB does not match any BIND currently queued for the application program.

You issued an OPNSEC macroinstruction and a queued BIND could not be found for the LU name passed in the NIB.

RTNCD	FDB2	Explanation
20(X'14')	97(X'61')	SETLOGON not valid

Either you opened the ACB with its MACRF field set to NLOGON, or you issued SETLOGON OPTCD=QUIESCE and permanently closed the CINIT queue. Because you attempted to either open a CINIT queue that cannot be opened or close a CINIT queue that is closed, SETLOGON START, STOP, and QUIESCE are not valid.

You might have issued a SETLOGON OPTCD=PERSIST or NPERSIST with a PSTIMER value that is greater than the allowed value (86400 seconds).

Note: You can successfully issue SETLOGON OPTCD=PERSIST or SETLOGON OPTCD=NPERSIST with the MACRF field set to NLOGON or after a QUIESCE.

RTNCD	FDB2	Explanation
20(X'14')	108(X'6C')	Exceeded limit on outstanding RCVCMD requests

You attempted to issue an RCVCMD macroinstruction while a previous RCVCMD was outstanding. The limit on outstanding RCVCMD requests is one.

RTNCD	FDB2	Explanation
20(X'14')	109(X'6D')	Application program not authorized

Your application program is not authorized to issue the SENDCMD and RCVCMD macroinstructions, or your CNM application program attempted to send something other than a formatted Forward RU to the SSCP.

Refer to “AUTH” in the *VTAM Resource Definition Reference* for a description of the AUTH operand of the APPL definition statement.

RTNCD	FDB2	Explanation
20(X'14')	110(X'6E')	Syntax error in reply to VTAM operator message

In reply to a VTAM operator message, you issued a SENDCMD macroinstruction that contained a syntax error in the REPLY command.

RTNCD	FDB2	Explanation
20(X'14')	111(X'6F')	SENDCMD/RCVCMD processor inactive

The portion of VTAM that processes SENDCMD and RCVCMD macroinstructions is currently inactive for your application program, and the application program issued a SENDCMD or RCVCMD macroinstruction. The request cannot be processed because an ACB has not been opened for the portion of the application program that issued the SENDCMD or RCVCMD, or because a final CLOSE has been issued for this ACB but has not yet completed.

RTNCD	FDB2	Explanation
20(X'14')	112(X'70')	Program operator closing ACB with requests outstanding

Your application program is in the process of closing its ACB, and you (1) issued a SENDCMD macroinstruction for a command other than REPLY or (2) issued a RCVCMD OPTCD=Q and there were no VTAM messages available to satisfy the request.

RTNCD	FDB2	Explanation
20(X'14')	113(X'71')	Operator command not valid

You attempted to send a VTAM operator command to VTAM using the SENDCMD macroinstruction; however, the command was not recognized by VTAM, or it was a command (START or HALT) that cannot be sent by the application program.

RTNCD	FDB2	Explanation
20(X'14')	115(X'73')	SEND parameters for CNM not valid

You issued a SEND macroinstruction when using a CNM application program and you have specified a parameter that is not valid.

RTNCD	FDB2	Explanation
20(X'14')	116(X'74')	Negotiable response to non-negotiable BIND

You attempted to issue an OPNSEC PROC=NEGBIND to a non-negotiable BIND request. A request-rejected response to the BIND is sent with a sense code indicating resource unavailable (X'08010000').

RTNCD	FDB2	Explanation
20(X'14')	117(X'75')	Negotiable BIND response parameters not valid

You specified negotiable BIND parameters on an OPNSEC macroinstruction that are not valid. A request rejected response to the BIND is sent with a sense code indicating resource unavailable (X'0801000').

RTNCD	FDB2	Explanation
20(X'14')	118(X'76')	Negotiable BIND response size not valid

You specified a negotiable BIND response on OPNSEC that was greater than 256 bytes. A request rejected response to the BIND is sent with a sense code indicating resource unavailable (X'08010000').

RTNCD	FDB2	Explanation
20(X'14')	119(X'77')	FMD request unit required

You issued a SEND OPTCD=BUFFLST or a SEND OPTCD=LMPEO and the RU specified was not an FMD request unit.

RTNCD	FDB2	Explanation
20(X'14')	120(X'78')	Chain specification not valid

You issued a SEND OPTCD=(BUFFLST,USERRH) in which multiple chains or multiple partial chains were specified in the buffer list. Only requests from a single chain might be specified in a buffer list.

RTNCD	FDB2	Explanation
20(X'14')	121(X'79')	Buffer list length not valid

You issued a SEND OPTCD=BUFFLST, and RECLEN did not contain a nonzero multiple of 16.

RTNCD	FDB2	Explanation
20(X'14')	123(X'7B')	User RH not valid

One of the following conditions was detected for a SEND OPTCD=USERRH:

- The settings of the CONTROL operand and of the RU category field in the user RH were inconsistent. If CONTROL=DATA, then the RU category must be FMD. If CONTROL is not DATA, then the RU category must be DFC. See also (RTNCD,FDB2)=(X'14',X'77').
- A sense indicator in the user RH field was found to be on with zero sense provided. For a non LUO session, zero sense is architecturally incorrect.

RTNCD	FDB2	Explanation
20(X'14')	124(X'7C')	OPTCD=USERRH for SESSIONC not valid

You specified a SESSIONC macroinstruction with OPTCD=USERRH.

RTNCD	FDB2	Explanation
20(X'14')	125(X'7D')	XRF protocol error

A protocol error has occurred during the processing of a SIMLOGON or OPNDST macroinstruction.

SIMLOGON for a backup XRF request is processed by setting the “backup XRF session request” indicator in the INITIATE RU. This indicator is set based on the setting of the RPL bit indicating OPTCD=BACKUP (RPLBCKUP). If an Initiate is received specifying a backup XRF session and queue, it is rejected.

The RPL system-sense (SSENSEI), the system-sense modifier (SSENSMI), and the user-sense (USENSEI) can contain a more detailed explanation of the failure.

RTNCD	FDB2	Explanation
20(X'14')	126(X'7E')	Conflicting OPTCD on a macroinstruction request

One of the following conditions was detected:

- A TERMSESS macroinstruction has been issued with none or more than one of the following OPTCDs specified: COND, UNCOND, and UNBIND.
- A SETLOGON request has been issued with none or more than one of the following OPTCDs specified: HOLD, NPERSIST, PERSIST, QUIESCE, GNAMEADD, GNAMEDEL, GNAMESUB, START, and STOP.
- A SIMLOGON request has been issued with more than one of the following OPTCDs specified: QALL, QSESSLIM, and QNOTENAB.

RTNCD	FDB2	Explanation
20(X'14')	127(X'7F')	Policing error - non-APPC macroinstruction

An application program issued a non-APPCCMD macroinstruction to establish an LU 6.2 session, or issued a non-APPCCMD macroinstruction against a current LU 6.2 session.

RTNCD	FDB2	Explanation
20(X'14')	128(X'80')	SETLOGON not valid

You specified SETLOGON OPTCD=NPERSIST or PERSIST for an application that is not capable of persistence.

RTNCD	FDB2	Explanation
20(X'14')	129(X'81')	TERMSESS without OPTCD=UNBIND with session in a pending state

A TERMSESS macroinstruction is issued for a pending active session without specifying OPTCD=UNBIND.

RTNCD	FDB2	Explanation
20(X'14')	130(X'82')	Parameter length not valid

The length of an application-supplied dial parameter is not valid. Refer to “Application-Supplied Dial Parameter Control Block (ASDP)” in *VTAM Programming* for a description of the valid lengths.

RTNCD	FDB2	Explanation
20(X'14')	131(X'83')	Subfield error

Either a subfield is not supported, or a combination of subfields that is not valid is specified. Refer to “Application-Supplied Dial Parameter Control Block (ASDP)” in *VTAM Programming*. for information about the valid subfields that can be specified.

RTNCD	FDB2	Explanation
20(X'14')	132(X'84')	NIBASDPA = 0

The value of NIBASDPA is 0. The NIBASDP indicator was on, indicating that the application is providing dial parameters; however, no address for the control block was given. This probably resulted from the application program passing an address that is not valid to the NIB.

RTNCD	FDB2	Explanation
20(X'14')	133(X'85')	Session must be restored

A SEND, RECEIVE, RESETSR, or SESSIONC request is rejected because it is issued for a session that is pending recovery. Use OPNDST OPTCD=RESTORE to restore the session and reissue the request.

RTNCD	FDB2	Explanation
20(X'14')	134(X'86')	Existing session prevents successful completion of this operation

One of the following applies:

- You issued CHANGE OPTCD=ENDAFFIN to terminate the association between your application program and the specified LU. At least one session exists between the specified LU and the application program; all sessions with the partner LU must be ended before the association can be terminated.

- You issued SETLOGON OPTCD=GNAMEADD to register your application as a generic resource, but a session exists already.

RTNCD	FDB2	Explanation
20(X'14')	135(X'87')	Resource name and generic name are the same

| You attempted to issue either SETLOGON OPTCD=GNAMEADD, SETLOGON OPTCD=GNAMESUB, or SETLOGON OPTCD=GNAMEDEL using a generic name that was the same as the application network name; they must be different.

RTNCD	FDB2	Explanation
20(X'14')	136(X'88')	No association matching the given criteria exists.

You issued either CHANGE OPTCD=ENDAFFIN or INQUIRE OPTCD=SESSNAME, but the values specified in the NIB do not correspond to any known association.

RTNCD	FDB2	Explanation
20(X'14')	137(X'89')	Generic name not authorized

The generic name has not been authorized using a security management product such as RACF.

RTNCD	FDB2	Explanation
20(X'14')	138(X'8A')	Application program already registered

The application program is registered already as a generic resource, but with a different name.

RTNCD	FDB2	Explanation
20(X'14')	139(X'8B')	SETLOGON OPTCD=GNAMEDEL not valid

You used SETLOGON OPTCD=GNAMEDEL to deregister generic resources but VTAM determined that generic mapping does not exist; no VTAM message is issued.

RTNCD	FDB2	Explanation
20(X'14')	140(X'8C')	Network identifiers conflict for this generic resource.

This generic resource exists already with another network identifier.

RTNCD	FDB2	Explanation
20(X'14')	141(X'8D')	Simultaneous generic resource registration in progress

Two applications with the same application network name are simultaneously attempting to register a generic name.

RTNCD	FDB2	Explanation
20(X'14')	142(X'8E')	APPC capabilities conflict

All applications registering as generic resources must have the same APPC capabilities specified on their APPL statements.

RTNCD	FDB2	Explanation
20(X'14')	143(X'8F')	Deletion of VTAM affinity rejected

VTAM owns the affinity. Your application cannot delete it.

RTNCD	FDB2	Explanation
20(X'14')	144(X'90')	USERVAR conflict while registering generic resources

You issued SETLOGON OPTCD=GNAMEADD to register generic resources. VTAM detected a conflict (the generic resource exists already as a USERVAR name).

RTNCD	FDB2	Explanation
20(X'14')	145(X'91')	TSO GENERIC NAME CONFLICT

Either a non-TSO application is attempting to use the generic name already being used by TSO, or TSO is attempting to use the generic name already being used by a non-TSO application.

RTNCD	FDB2	Explanation
20(X'14')	146(X'92')	SETLOGON GNAMESUB FAILURE

A SETLOGON OPTCD=GNAMESUB macroinstruction failed for one of the following reasons:

- SETLOGON OPTCD=GNAMEADD was previously issued for this ACB.
- SETLOGON OPTCD=GNAMESUB was previously issued for this ACB.
- The application program network name specified in the VTAM node identification block (NIB) either was not found or was not an instance of the generic name specified in the NIB.

RTNCD	FDB2	Explanation
20(X'14')	147(X'93')	STOKEN not valid.

PROC=STOKEN is specified and the NIBSTKN field contains zeros or blanks. NIBSTKN must contain a valid STOKEN.

RTNCD and FDB2 Information for LU 6.2

While most of the LU 6.2 feedback information from errors is found in the RCPRI and RCSEC fields, some error return codes in the RPL RTNCD and FDB2 fields are meaningful for LU 6.2 applications. The X'00', X'0B' combination in the RPL indicates some problem might have occurred while the macro was executing. RCPRI and RCSEC should be used for further diagnosis. The other RTNCD, FDB2 combinations refer to attempts to start an LU 6.2 session independent of VTAM or attempts to use non-APPCCMD macros for APPCCMD functions. Following are the relevant codes.

RTNCD	FDB2	ISTUSFBC EQU Label	Meaning
X'00'	X'0B'	USF6APPC	CONDITIONAL COMPLETION FOR APPCCMD

Some type of error might have occurred on an APPCCMD macro. For further problem determination, refer to the primary and secondary return codes in the RPL extension. These fields are RPL6RCPR and RPL6RCSC.

RTNCD	FDB2	ISTUSFBC EQU Label	Meaning
X'04'	X'05'	USFNQN	SYMBOLIC NAME KNOWN BY NETWORK-QUALIFIED NAME ONLY

A real-to-symbolic translation request is made, and NIBNET is filled in with a network identifier, but VTAM cannot provide a symbolic name. VTAM knows this resource only by its network-qualified name. No symbolic name represents this resource. Do one of the following:

- Use the network-qualified name.
- Define a symbolic name to represent this resource.

RTNCD	FDB2	ISTUSFBC EQU Label	Meaning
X'10'	X'13'	USF6APRJ	ATTEMPT TO START 6.2 SESSION: REQUEST REJECTED

An LU 6.2 application program has tried to start an LU 6.2 session independent of VTAM. No pending sessions have been disturbed. This occurs when an OPNDST is issued with an LU 6.2 user-specified BIND.

RTNCD	FDB2	ISTUSFBC EQU Label	Meaning
X'10'	X'14'	USF6APST	ATTEMPT TO START 6.2 SESSION: PENDING SESSION TERMINATED

An LU 6.2 application program has tried to start an LU 6.2 session independent of VTAM. The pending session has been terminated. This occurs when the LOGMODE specified on an OPNDST resolves to an LU 6.2 BIND or when OPNSEC is issued for an LU 6.2 BIND.

RTNCD	FDB2	ISTUSFBC EQU Label	Meaning
X'10'	X'15'	USF6APIS	AN APPCCMD MUST BE ISSUED

An OPNDST or CLSDST has been issued for a pending LU 6.2 session. An APPCCMD CONTROL=OPRCNTL, QUALIFY=ACTSESS or QUALIFY=DACTSESS macro must be issued for this session.

RTNCD	FDB2	ISTUSFBC EQU Label	Meaning
X'14'	X'7F'	USF6PENA	POLICING ERROR — NON-APPC MACRO

An application program issued a non-APPCCMD macro to establish an LU 6.2 session, or issued a non-APPCCMD macro against a current LU 6.2 session.

RCPRI and RCSEC Return Codes for LU 6.2

VTAM passes feedback return codes to the LU 6.2 application program in a variety of ways. The principal feedback mechanism is the RCPRI and RCSEC return code fields in the RPL extension. These fields have meaning only when register 15 is set to X'00' and register 0 is set to X'0B'. These values are also the values of the RPL's RTNCD and FDB2 fields, respectively.

For a general discussion of how register contents relate to RPL feedback fields, see Chapter 14, “Handling Errors” in the *VTAM Guide to Programming for LU 6.2*.

The RPL extension contains two fields in which return code information is passed to the application program at the completion of an APPCCMD macroinstruction execution. The two fields are RPL6RCPRI and RPL6RCSEC, and together they indicate the result of the macroinstruction execution, including any state changes to the specified conversation. The RCPRI field returns a primary return code to the application; the RCSEC field returns a secondary return code to the application. Some RCPRI codes do not have associated RCSEC subcodes. For these RCPRI codes, the RCSEC field is set to X'0000'.

Some of the (RCPRI, RCSEC) return codes indicate the results of the local VTAM's processing of the macroinstruction; these return codes are returned on the APPCCMD that invoked the local processing. Other (RCPRI, RCSEC) return codes indicate the results of processing invoked at the remote end of the conversation and, depending upon the CONTROL and QUALIFY settings of the APPCCMD, can be returned on the APPCCMD that invoked the remote processing or on a subsequent APPCCMD. Still other return codes report events that originate at the remote end of the conversation.

The RCPRI and RCSEC codes are described below. Each description includes the meaning of the code, the reason for the condition indicated by the code, when the code can be reported to the application program, and the state of the conversation (if applicable) when the function of the APPCCMD completes. Actions taken by the local application program are discussed in the following return code descriptions in terms of APPCCMD macroinstructions; actions taken by the remote LU or transaction program are described more generically using the architected protocol boundary verbs documented in the LU 6.2 architecture.

Note: Some application programs change the hexadecimal values from the RCPRI, RCSEC fields to decimal values. You may need to convert these back to hexadecimal values for problem determination.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0000'	(all)	USF6OK	OK

The local application program issued an APPCCMD macroinstruction that executed without error. The function defined for the APPCCMD was performed as specified.

The OK RCPRI code together with one of the following RCSEC subcodes form the complete return code that is returned to the application; the RCSEC subcode provides additional information.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0000'	X'0000'	USF6OKSC	OK

The APPCCMD completed successfully and no additional information is defined for the APPCCMD. If a conversation-related macroinstruction is issued, the conversation state can be found in the CONSTATE field. Whenever this RCPRI,RCSEC combination is present, registers 15 and 0 are also set to 0.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0000'	X'0001'	USF6ASSP	AS SPECIFIED

The CNOS values supplied by the application program on the APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction were accepted by the partner LU as specified, without negotiation.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0000'	X'0002'	USF6ASNG	AS NEGOTIATED

One or more of the CNOS values supplied by the application program on the APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was changed by negotiation with the partner LU. The values are returned to the application program on the APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction. (The macroinstruction description defines which values can be negotiated.)

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0000'	X'0003'	USF6RCVR	RECEIVE SPECIFIC REJECTED

An APPCCMD CONTROL=RECEIVE, QUALIFY=SPEC or APPCCMD CONTROL=RECEIVE, QUALIFY=ISPEC macroinstruction was rejected because an APPCCMD CONTROL=RECEIVE, QUALIFY=ANY or APPCCMD CONTROL=RECEIVE, QUALIFY=IANY macroinstruction is currently being processed on this conversation. There is no state change. See Chapter 1, “LU 6.2 Macroinstruction Syntax and Operands” in the *VTAM Programming Reference for LU 6.2*. for more information on the APPCCMD CONTROL=RECEIVE, QUALIFY=SPEC|ISPEC and APPCCMD CONTROL=RECEIVE, QUALIFY=ANY|IANY macroinstructions.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0000'	X'0004'	USF6SNGL	PARTNER LU SUPPORTS SINGLE SESSION

VTAM has determined that the partner LU supports only single sessions. If the session limit you specified was greater than 1, or if you did not specify a session limit, then the default values of 1, 0, 0 were used for your CNOS request.

If the partner LU indicated single-session capability using a negative BIND response, the partner LU's name will be missing from the Userdata subfield of the BIND. When the application program issues an APPCCMD CONTROL=OPRCNTL, QUALIFY=DISPLAY macroinstruction, it should verify the presence of the partner LU's fully qualified name. If the FQNLEN field is 0, the partner LU's name is not available. Check the FQNLEN field before checking the FQNAME field.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0000'	X'0005'	USF6INER	INTERNAL VTAM ERROR

VTAM rejected the APPCCMD CONTROL=REJECT, QUALIFY=SESSION macroinstruction because of an internal error other than a storage shortage condition.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0000'	X'0006'	USF6RSUN	RESTORE_UNNECESSARY— NO_MODES_TO_RESTORE

The APPCCMD CONTROL=OPRCNTL,QUALIFY=RESTORE macroinstruction is unnecessary. The associated mode (or modes) has been restored already, or nothing existed to restore.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0000'	X'0007'	USF6RSIN	RESTORE_INCOMPLETE— INPUT_WORK_AREA_TOO_SMALL

The APPCCMD CONTROL=OPRCNTL,QUALIFY=RESTORE macroinstruction is incomplete. The AREA supplied is too small to hold all the information that needs to be returned. Reissue the macroinstruction one or more times to obtain all the restore information and to complete the restore.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	X'0008'	USF6NINA	NO IMMEDIATELY AVAILABLE INFORMATION

An APPCCMD that requested the immediate return of available information was issued. However, no information that could satisfy the request was available.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	X'0009'	USF6RTEC	REQUEST TERMINATED BY END OF CONVERSATION

An APPCCMD was awaiting processing or awaiting the arrival of information or a response on a specific conversation. The command has terminated because the conversation ended before the requested information became available or before it could be processed.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	X'000A'	USF6ANMS	SESSIONS WILL USE APPL NAME, GENERIC NAME REQUESTED

Use of the generic resource name was requested but the application network name is required.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	X'000B'	USF6GNMS	SESSIONS WILL USE GENERIC NAME, APPL NAME WAS REQUESTED

Use of the application network name was requested but the generic resource name is required.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0000'	X'000C'	USF6NAM1	AS SPECIFIED, PARTNER LU KNOWN BY DIFFERENT NAME

The CNOS values supplied by the application program on the APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction were acceptable by the partner LU as specified, without negotiation. Furthermore, the CNOS operation caused an LU entry of type RCVD_NAME to be changed to a VARIANT_NAME entry in the LU-mode table. For more information, see "LU 6.2 Names Used for Session Activation" in the *VTAM Guide to Programming for LU 6.2*.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0000'	X'000D'	USF6NAM2	AS NEGOTIATED, PARTNER LU KNOWN BY DIFFERENT NAME

One or more of the CNOS values supplied by the application program on the APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was changed by negotiation with the partner LU. The values are returned to the application program on the APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction. (The macroinstruction description defines which values can be negotiated.) Furthermore, the CNOS operation caused an LU entry of type RCVD_NAME to be changed to a VARIANT_NAME entry in the LU-mode table. For more information, see "LU 6.2 Names Used for Session Activation" in the *VTAM Guide to Programming for LU 6.2*.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0004'	(all)	USF6ALLC	ALLOCATION ERROR

The application program issued APPCCMD CONTROL=ALLOC and allocation of the specified conversation could not be completed. When the ALLOCATION_ERROR RCPRI code is used with one of the following RCSEC subcodes (X'0000'–X'000F'), they form the complete return code that is returned to the program. The RCSEC subcode identifies the specific error. (The partner LU and remote transaction program referred to in the following RCSEC definitions are the LU named in the LUNAME field of the APPCCMD, and the transaction program named in the FMH-5 supplied through the AREA field of the APPCCMD, respectively.)

If the partner LU detects the error that causes an ALLOCATION_ERROR RCPRI code to be returned to the application, the error indicator sent by the partner LU can specify that error log data follows the error indicator. The error log data indicator is returned to the application program in the LOGRCV field of the completed macroinstruction. If an ALLOCATION_ERROR RCPRI code is returned to the application along with LOGRCV=YES, the conversation should issue APPCCMD CONTROL=RECEIVE, QUALIFY=SPEC to receive the error log data. When the error log data is received, the conversation is over.

If an ALLOCATION_ERROR RCPRI code is returned to the application along with LOGRCV=NO, the conversation is in END_CONV state.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0004'	X'0000'	USF6ALNR	ALLOCATION FAILURE NO RETRY

The conversation cannot be allocated on a session because of a permanent condition. For example, the session to be used for the conversation cannot be activated for one of the following reasons:

- The mode is closed; the current session limit is 0.
  - CNOS has not been negotiated and no entry has been created for the mode.
  - A previous CNOS request has set limits to 0.
- A system definition error.
- A session-activation protocol error.

The session also might be deactivated because of a session protocol error before the conversation could be allocated. The application program should not retry the allocation request until the condition is corrected. The application should check the returned SENSE field in the RPL extension for an indication of the exact error.

If this code occurs when issuing a DISPLAY APING operator command, the session may have been deactivated as a result of processing a received APING request for the same mode. Reissue the operator command.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0004'	X'0001'	USF6ALR	ALLOCATION FAILURE RETRY

The conversation cannot be allocated on a session because of a temporary condition. For example, the session to be used for the conversation cannot be activated because of a temporary lack of resources at the remote LU; or the session was deactivated because of session outage before the conversation could be allocated. The condition is temporary, and the program can retry the allocation request.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0004'	X'0002'	USF6ALCM	CONVERSATION TYPE MISMATCH

The partner LU rejected the allocation request because the remote transaction program does not support the respective mapped or basic protocol boundary. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0004'	X'0003'	USF6ALPI	PIP NOT ALLOWED

The partner LU rejected the allocation request because the local application program provided program initialization parameter (PIP) data (along with the FMH-5) and either the partner LU does not support PIP data, or the remote transaction program has no PIP variables defined. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0004'	X'0004'	USF6ALPP	PIP NOT SPECIFIED CORRECTLY

The partner LU rejected the allocation request because the remote transaction program has one or more PIP variables defined and the local application program provided no program initialization parameters, or the local application program specified program initialization parameters (along with the FMH-5) that do not correspond in number to those defined for the remote transaction program. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0004'	X'0005'	USF6ALSC	SECURITY NOT VALID

The partner LU rejected the allocation request because the access security information supplied by the local application (in the FMH-5) is not valid. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0004'	X'0006'	USF6ALSY	SYNC LEVEL NOT SUPPORTED BY LU

The partner LU rejected the allocation request because the synchronization level specified in the allocation request is not supported by both the local and partner LU. The local LU specifies its level of synchronization support on its APPL statement. The partner LU has returned the negotiated level between the two LUs in the BIND response. This return code is returned on the APPCCMD CONTROL=ALLOC macroinstruction for the local LU.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0004'	X'0007'	USF6ALSL	SYNC LEVEL NOT SUPPORTED BY PROGRAM

The partner LU rejected the allocation request because the local application program specified a synchronization level (in the FMH-5) that the remote transaction program does not support. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0004'	X'0008'	USF6ALTP	TPN NOT RECOGNIZED

The partner LU rejected the allocation request because the local application program specified a remote transaction program name (TPN) that the partner LU does not recognize. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0004'	X'0009'	USF6ALTN	TRANSACTION PROGRAM NOT AVAILABLE, NO RETRY

The partner LU rejected the allocation request because the local application program specified a remote transaction program that the partner LU recognizes but cannot start. The condition is not temporary, and the application should not retry the allocation request. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0004'	X'000A'	USF6ALTR	TRANSACTION PROGRAM NOT AVAILABLE, RETRY

The partner LU rejected the allocation request because the local application specified a remote program that the remote LU recognizes but currently cannot start. The condition is temporary, and the application can retry the allocation request. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0004'	X'000B'	USF6ALRN	CANNOT RECONNECT TRANSACTION PROGRAM, NO RETRY

The partner LU rejected the reconnection request because it does not recognize the conversation correlator. The condition is not temporary, and the application should not retry the reconnection request. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0004'	X'000C'	USF6ALRR	CANNOT RECONNECT TRANSACTION PROGRAM, RETRY

The partner LU rejected the reconnection request because it currently cannot reconnect the remote transaction program implied by the conversation correlator. The condition is temporary, however, and the application can retry the reconnection request. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0004'	X'000D'	USF6ALNS	RECONNECT NOT SUPPORTED BY PROGRAM

The partner LU rejected the allocation request because the local application program specified a recovery level of program reconnect (in the FMH-5) and the remote transaction program does not support program reconnect. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0004'	X'000E'	USF6SPMA	MODE MUST BE RESTORED BEFORE USING

The APPCCMD CONTROL=ALLOC macroinstruction is rejected because the specified mode name is pending recovery for persistent LU-LU sessions. Restore the mode by issuing APPCCMD CONTROL=OPRCNTL, QUALIFY=RESTORE.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0004'	X'000F'	USF6DARQ	DEALLOCATION REQUESTED

The allocation request has been cancelled before its normal processing could be completed. The local application program issued a request for abnormal deallocation of the pending conversation.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'0010'	USF6ALSF	ALLOCATION ERROR - SYNCH LEVEL NOT VALID FOR FULL-DUPLEX

The allocation request has been rejected because it specifies a full-duplex conversation with a sync point level not allowed for a full-duplex conversation.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'0011'	USF6LNSF	ALLOCATION ERROR - LU PAIR NOT SUPPORTING FDX CONVERSATION

The allocation request has been rejected because it specifies a full-duplex conversation and the negotiated level of support between the local application and the partner LU does not allow full-duplex conversations.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0008'	(all)	USF6CNSA	CNOS FAILURE

The APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction did not process successfully. The CNOS_ALLOCATION_ERROR RCPRI code together with one of the following RCSEC subcodes (X'0000'–X'0006') form the complete return code that is returned to the transaction program. The RCSEC subcode identifies the specific error. The local and partner LUs' CNOS parameters are not changed.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0008'	X'0000'	USF6CANR	ALLOCATION FAILURE NO RETRY

The control operator conversation cannot be allocated because of a condition that is not temporary. For example, the session to be used for the control operator conversation cannot be activated because the session limit for the specified partner LU and SNASVCMG mode name is currently 0 at either the local LU or partner LU; or because of a system definition error or a session-activation protocol error; or because a session protocol error caused the session to be deactivated before the conversation could be allocated. The CNOS will not be able to complete successfully until the condition is corrected. This code can also be returned if a partner LU rejects a SNASVCMG mode name BIND.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0008'	X'0001'	USF6CAR	ALLOCATION FAILURE RETRY

The control operator conversation cannot be allocated because of a temporary condition. For example, the session to be used for the control operator conversation cannot be activated because of a temporary lack of resources at the local LU or partner LU, or the session was deactivated because of session outage before the conversation could be allocated. The condition is temporary, and the control operator can retry the transaction later.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0008'	X'0002'	USF6CATR	TRANSACTION PROGRAM NOT AVAILABLE, RETRY

The partner LU is currently unable to start the transaction program identified as hex 06F1, which is the SNA service transaction program for the control operator. For example, there can be a temporary lack of resources the partner LU needs to start the transaction program. The condition is temporary, and the control operator can retry the transaction later.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0008'	X'0003'	USF6CATN	TRANSACTION PROGRAM NOT AVAILABLE, NO RETRY

The partner LU is unable to start the transaction program identified as X'06F1', which is the SNA service transaction program for the control operator. The condition is not temporary, and the application should not retry the CNOS request.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0008'	X'0004'	USF6CACM	CONVERSATION TYPE MISMATCH

The partner LU rejected the CNOS conversation allocation request because the remote transaction program does not support the respective mapped or basic protocol boundary.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0008'	X'0005'	USF6CASC	SECURITY NOT VALID

The partner LU rejected the CNOS conversation allocation request because the access security information supplied by VTAM (in the FMH-5) is invalid.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0008'	X'0006'	USF6SPMC	MODE MUST BE RESTORED BEFORE USING

The APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction is rejected because the specified mode name is pending recovery for persistent LU-LU sessions. Restore the mode by issuing APPCCMD CONTROL=OPRCNTL, QUALIFY=RESTORE. New modes can be added once the SNASVCMG mode for an LU has been restored, but any mode that exists when the failure (or takeover) occurs cannot be used until that mode has been restored.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0008'	X'0007'	USF6NQNM	NETWORK QUALIFIED NAME MISMATCH

The name on an APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was an ACB name. The ACB name is not identical to the network resource name. ACB names cannot be used in cross-domain, cross-network, or network qualified. For information on coding the ACBNAME operand, see “ACBNAME” in the *VTAM Resource Definition Reference*.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'000C'	X'0000'	USF6CNSN	CNOS RESOURCE FAILURE, NO RETRY

The APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction did not execute successfully because of a failure that caused the control operator conversation to be deallocated prematurely. For example, the session being used for the control operator conversation was deactivated for one of the following reasons:

- A session protocol error
- A session outage from which the control operator component of the LU could not recover.

The conversation also might be deallocated because of a protocol error between the control operator components of the LUs. The condition is not temporary, and the control operator should not retry the transaction until the condition is corrected. The CNOS parameters remain unchanged at the local LU, or both the local and partner LUs, depending on when the failure occurred.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0010'	(all)	USF6CRRJ	COMMAND RACE REJECT

The APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction did not execute successfully because two CNOS operations caused contention for the needed resources.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0010'	X'0000'	USF6CRPR	PARTNER GRANTED RETRY

Both LUs initiated a CNOS negotiation for the same mode at the same time. The partner LU will retry the CNOS request. VTAM fails the CNOS request from the local LU.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0010'	X'0001'	USF6CRLR	CONTROL OPERATOR FOR LOCAL LU RETRIED

Both LUs initiated CNOS processing for the same mode at the same time. VTAM failed the partner's CNOS attempt, and the local LU was given permission to retry the CNOS request. VTAM attempted CNOS processing again but the subsequent CNOS negotiation failed as well. VTAM was forced to fail the local LU's CNOS request.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0010'	X'0002'	USF6PCIP	PARTNER CNOS IN PROGRESS

The partner LU has already begun processing a CNOS for the same mode name, and its processing will continue uninterrupted. The application program must reissue this APPCCMD for it to be processed.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0010'	X'0003'	USF6LPSS	LU IN PENDING SINGLE STATE

The CNOS negotiation cannot be attempted at this time because the partner LU has initiated a CNOS request for the same mode. The partner LU might be a single-session-capable LU. The local LU cannot issue a CNOS request until the CNOS request initiated by the partner LU completes.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0010'	X'0004'	USF6PLSS	PARTNER LU STARTING SESSION

A partner LU that provides only single-session support is currently initiating a session. Because only one session can be active at a time, the application program's CNOS request is rejected. The application program can retry the CNOS command later.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0014'	X'0000'	USF6DABP	DEALLOCATE ABEND PROGRAM

The remote transaction program issued a DEALLOCATE verb, as defined in the LU 6.2 architecture, specifying the TYPE(ABEND_PROG) parameter, or the remote LU did so because of a remote transaction program abend condition. If the conversation for the remote transaction program was in a state in which information can be received when the DEALLOCATE was issued, information sent by the local application and not yet received by the remote transaction program was purged. This return code can be reported to the local application on any APPCCMD macroinstruction that can process the error notification on a half-duplex conversation. This return code can only be reported on an APPCCMD CONTROL=RECEIVE on a full-duplex conversation. The error indicator sent by the partner LU to specify the DEALLOCATE_ABEND_PROGRAM condition can specify that error log data follows the error indicator. The error log data indicator is returned to the application program in the LOGRCV field of the completed macroinstruction. If a DEALLOCATE_ABEND_PROGRAM RCPRI code is returned to the application along with LOGRCV=YES, the conversation should issue APPCCMD CONTROL=RECEIVE, QUALIFY=SPEC|ISPEC to receive the error log data. The conversation is then ended. If a DEALLOCATE_ABEND_PROGRAM RCPRI code is returned to the application along with LOGRCV=NO, the conversation is ended.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0018'	X'0000'	USF6DABS	DEALLOCATE ABEND SERVICE

The remote transaction program issued a DEALLOCATE verb, as described in the LU 6.2 architecture, specifying the TYPE(ABEND_SVC) parameter. If the conversation for the remote transaction program was in a state in which information can be received when the DEALLOCATE was issued, information sent by the local application and not yet received by the remote transaction program was purged. This return code can be reported to the local application on any APPCCMD macroinstruction that can process the error notification on a half-duplex conversation. This return code can only be reported on an APPCCMD CONTROL=RECEIVE on a full-duplex conversation. The error indicator sent by the partner LU to specify the DEALLOCATE_ABEND_SERVICE condition can specify that error log data follows the error indicator. The error log data indicator is returned to the application program in the LOGRCV field of the completed macroinstruction. If a DEALLOCATE_ABEND_SERVICE RCPRI code is returned to the application along with LOGRCV=YES, the conversation is in PEND_END_CONV_LOG or PEND_RESET_LOG state. If a DEALLOCATE_ABEND_SERVICE RCPRI code is returned to the application along with LOGRCV=NO, the conversation is in END_CONV or FDX_RESET state.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'001C'	X'0000'	USF6DABT	DEALLOCATE ABEND TIMER

The remote transaction program issued a DEALLOCATE verb, as described in the LU 6.2 architecture, specifying the TYPE(ABEND_TIMER) parameter. If the conversation for the remote program was in a state in which information can be received when the DEALLOCATE was issued, information sent by the local application program and not yet received by the remote transaction program was purged. This return code can be reported to the local program on any APPCCMD macroinstruction that can process the error notification on a half-duplex conversation. This return code can only be reported on an APPCCMD CONTROL=RECEIVE on a full-duplex conversation. The error indicator sent by the partner LU to specify the DEALLOCATE_ABEND_TIMER condition can specify that error log data follows the error indicator. The error log data indicator is returned to the application program in the LOGRCV field of the completed macroinstruction. If a DEALLOCATE_ABEND_TIMER RCPRI code is returned to the application along

with LOGRCV=YES, the conversation is in PEND_END_CONV_LOG or PEND_RESET_LOG state. If a DEALLOCATE_ABEND_TIMER RCPRI code is returned to the application along with LOGRCV=NO, the conversation is in END_CONV or FDX_RESET state.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0020'	X'0000'	USF6CNSR	CNOS FAILURE, RETRY

The APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was issued and a conversation was begun with the partner LU. However, a failure occurred that caused the conversation to be prematurely terminated. For example, the session being used for the conversation was deactivated because of a session outage, such as a line failure or a modem failure. The condition is temporary, and the application can retry the transaction.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0024'	X'0000'	USF6LRBE	LOGICAL RECORD BOUNDARY ERROR

The application program began sending a logical record before the previous logical record was sent in its entirety. The conversation state does not change.

For macroinstructions that use the QUALIFY=DATACON keyword, the data that was to be sent with the confirmation request is held. The application program must either furnish more data to finish the logical record, or truncate the incomplete record. The application cannot immediately send more data to complete the logical record, but must explicitly flush the send buffer and then send data to complete the logical record.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0028'	X'0000'	USF6SLCL	LU MODE SESSION LIMIT CLOSED

The APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction did not execute successfully because the partner LU currently will not allow the session limit for the specified mode name to be raised above 0. The session limit remains at 0. This condition is not necessarily permanent; the control operator can retry the CNOS transaction later.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	(all)	USF6PARM	PARAMETER ERROR

VTAM rejected the APPCCMD because one of the RPL, RPL extension, or session limits structure fields specified in the APPCCMD contained a value that was not valid. The PARAMETER_ERROR RCPRI code together with the following RCSEC subcodes (X'0000'–X'002D') form the complete return code that is returned to the application. The subcode identifies the specific error. This RCPRI code is returned on the APPCCMD that contained the parameter that was not valid. When this RCPRI code is returned on a conversation APPCCMD macroinstruction (that is, a macroinstruction that does not specify CONTROL=OPRCNTL), the state of the conversation remains unchanged. When this RCPRI code is returned on an APPCCMD CONTROL=OPRCNTL macroinstruction, the local and partner LUs' CNOS parameters are not changed.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0000'	USF6IVLU	INVALID LU NAME OR NETWORK IDENTIFIER

The APPCCMD specified an unrecognized partner LU name or network identifier.

This combination of return codes might result if VTAM does not find the LU name for a partner in the LU-mode table. The partner LU name and the (logon) mode name are added to the dynamically built LU-mode table during CNOS negotiation. To initiate CNOS negotiation, the application program issues the APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction and specifies the LU name and logon mode (LOGMODE) name to be used during communication.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0001'	USF6IVMD	INVALID MODE

The APPCCMD specified an unrecognized logmode name, or the logmode name is not allowed for the LU-LU pair.

This combination of return codes might occur if the LU name specified for a conversation allocation request is present in the LU-mode table but the (logon) mode name is not present. The partner LU name and the (logon) mode name are added to the dynamically built LU-mode table during CNOS negotiation. To initiate CNOS negotiation, the application program issues the APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction and specifies the LU name and logon mode (LOGMODE) name to be used during communication.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0002'	USF6IVCI	INVALID CONVERSATION

The APPCCMD specified an unassigned conversation ID, or the RPL used for the request specified an ACB other than the one associated with the conversation assigned that CONVID. The value specified might have been a valid CONVID, but the conversation might not be active.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0003'	USF6IVLL	INVALID LL

The data provided by the application program on an APPCCMD CONTROL=SEND, an APPCCMD CONTROL=PREPRCV, or an APPCCMD CONTROL=DEALLOC macroinstruction contained an invalid logical record length (LL) value of X'0000', X'0001', X'8000', or X'8001'. An LL value of hex 0001, which indicates that the data contains a presentation services (PS) header for sync point, is allowed only on conversations with a synchronization level of sync point.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0004'	USF6IVSV	INVALID VALUES FOR SNASVCMG MODE

An APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was issued and the values specified for the SESSLIM, MINWINL, and MINWINR do not specify (2,1,1) or (0,0,0), respectively.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0005'	USF6IVDL	INVALID DRAINL CHANGE

An APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was issued, NBRMODE=ONE and DRAINL=YES were specified, the session limit in effect when the APPCCMD was issued was 0, and DRAINL=NO was in effect when the APPCCMD was issued. (The application program attempted to change DRAINL from NO to YES on an APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction when session limits were 0.)

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0006'	USF6SNAR	SNASVCMG MODE CANNOT CURRENTLY BE RESET

An APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction is issued, the SNASVCMG mode name is specified, and either one or more session limits for the mode name group for the partner LU is not 0; or one or more session limits for the mode name group for the partner LU is 0, but draining is enabled.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0007'	USF6MMEX	MINWINL PLUS MINWINR EXCEEDS SESSLIM

An APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS or QUALIFY=DEFINE macroinstruction was issued and either the sum of MINWINL plus MINWINR is greater than the SESSLIM value specified, or the sum of DMINWNL plus DMINWNR is greater than the DSESLIM value specified.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0008'	USF6LNIN	SUPPLIED LENGTH INSUFFICIENT

The application issued one of the following macroinstructions:

- APPCCMD CONTROL=RCVEXPD
- APPCCMD CONTROL=RCVFMH5
- APPCCMD CONTROL=RECEIVE,OPTCD=XBUFLST
- APPCCMD CONTROL=OPRCNTL,QUALIFY=ACTSESS
- APPCCMD CONTROL=OPRCNTL,QUALIFY=DISPLAY
- APPCCMD CONTROL=OPRCNTL,QUALIFY=RESTORE
- APPCCMD CONTROL=TESTSTAT.

The data area or data length was not suitable as indicated in the following:

RECEIVE,OPTCD=XBUFLST	The area specified is not large enough to hold one extended buffer list entry.
RCVEXPD	Data area is too small to contain all the expedited data.
RCVFMH5	Data area is too small to contain the next available FMH-5
QUALIFY=ACTSESS	Data length indicated in the supplied session parameters was larger than the amount of data provided or exceeds the maximum size allowed
QUALIFY=DISPLAY	Data area is too small to contain the DEFINE/DISPLAY (ISTSLD) structure
QUALIFY=RESTORE	Data area is too small to contain the RESTORE (ISTREST) structure

TESTSTAT Data area is too small to contain the status data structure (ISTSTATD).

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0009'	USF6INSL	INCOMPLETE STRUCTURE SUPPLIED

The application program issued one of the following macroinstructions:

- APPCCMD CONTROL=OPRCNTL, QUALIFY=ACTSESS
- APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS
- APPCCMD CONTROL=OPRCNTL, QUALIFY=DEFINE.

The data length was not suitable as indicated in the following:

QUALIFY=ACTSESS Data length provided was less than the minimum size for the session parameters

QUALIFY=CNOS Data length provided was less than the minimum size for the session limits structure (ISTSLCNS)

QUALIFY=DEFINE Data length provided was less than the minimum size for the DEFINE/DISPLAY (ISTSLD) structure

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'000A'	USF6INFM	INCOMPLETE FMH5 SUPPLIED

The application program issued APPCCMD CONTROL=ALLOC, but did not supply an entire FMH-5.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'000B'	USF6INGD	INCOMPLETE GDS VARIABLE SUPPLIED

The application program issued an abnormal termination APPCCMD deallocation macroinstruction, but did not supply an entire GDS variable.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'000C'	USF60EXT	ZERO EXIT FIELD

The RPL specified that the ECB-EXIT field is being used as an EXIT field, but the RPL exit routine address in the field is zero. No RPL exit routine has been scheduled.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'000D'	USF60ECB	ZERO ECB FIELD

The RPL specified that the ECB-EXIT field is being used to point to an external ECB, but the address in the field is zero. No ECB has been posted.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'000E'	USF6RIAS	REQUEST INVALID FOR ADDRESS SPACE

A macroinstruction was issued in other than the ACB address space.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'000F'	USF6CBIN	CONTROL BLOCK INVALID

The RPL's ACB field does not contain the address of a valid ACB or the ACB is closed.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0010'	USF6INDL	INVALID DATA ADDRESS OR LENGTH

An APPCCMD was issued that specified a work area address that is beyond the addressable range of the application program.

If using a buffer list or extended buffer list to send data, check entries to ensure that the length field does not contain any negative values.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0011'	USF6PRVO	PREVIOUS MACROINSTRUCTION OUTSTANDING

An APPCCMD is issued that specifies a conversation resource while an outstanding macroinstruction that targets the same conversation and processes on the same conversation queue is pending completion, or an APPCCMD CONTROL=OPRCNTL is issued while an outstanding operator control APPCCMD that targets the same LU is pending completion. Wait until the first macroinstruction completes or coordinate this request with the one that is outstanding. For additional information on conversation queues, see “Conversation Queues for Macroinstruction Processing” in the *VTAM Guide to Programming for LU 6.2*.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0012'	USF6BLIV	BUFFER LIST LENGTH INVALID

The RECLEN field of the RPL was not valid.

For the following macroinstructions, the RECLEN field must be a nonzero multiple of 16:

- APPCCMD CONTROL=DEALLOC, OPTCD=BUFFLST
- APPCCMD CONTROL=PREPRCV, OPTCD=BUFFLST
- APPCCMD CONTROL=SEND, OPTCD=BUFFLST
- APPCCMD CONTROL=SENDEXPD, OPTCD=BUFFLST
- APPCCMD CONTROL=SENDRCV, OPTCD=BUFFLST.

For the following macroinstructions, the RECLEN field must be a nonzero multiple of 48:

- APPCCMD CONTROL=DEALLOC, OPTCD=XBUFLST
- APPCCMD CONTROL=PREPRCV, OPTCD=XBUFLST
- APPCCMD CONTROL=SEND, OPTCD=XBUFLST

For the APPCCMD CONTROL=SENDRCV, OPTCD=XBUFLST macroinstruction, the value for RECLEN minus 16 must be a nonzero multiple of 48.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0013'	USF6NOMD	NO CORRESPONDING MODE IN LM TABLE

The application program issued one of the following macroinstructions:

- APPCCMD CONTROL=OPRCNTL, QUALIFY=DISPLAY
- APPCCMD CONTROL=OPRCNTL, QUALIFY=RESTORE.

The application program also specified a mode name for which no corresponding entry exists in the LU-mode table.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0014'	USF6IVBP	INVALID BIND PARAMETERS

The application program issued an APPCCMD CONTROL=OPRCNTL, QUALIFY=ACTSESS and specified a set of BIND parameters that were not valid, or the parameters in the BIND that was received were not valid.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0015'	USF6IVTP	INVALID TPN

The application program issued an APPCCMD CONTROL=ALLOC with an FMH-5 that contained a transaction program name that was reserved or not valid, such as X'06F1', which is the SNA service transaction program for the control operator.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0016'	USF6NOLU	NO CORRESPONDING LU IN LM TABLE

The application program issued one of the following macroinstructions:

- APPCCMD CONTROL=OPRCNTL, QUALIFY=DISPLAY
- APPCCMD CONTROL=OPRCNTL, QUALIFY=RESTORE.

The application program also specified an LU name for which no corresponding entry exists in the LU-mode table.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0017'	USF6IMDF	INVALID MODE SPECIFIED

The application program issued an APPCCMD CONTROL=OPRCNTL, QUALIFY=DEFINE macroinstruction and specified mode name SNASVCMG.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0018'	USF6ILSP	INVALID LIMIT SPECIFIED

An APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was issued and one of the session limit fields was an incorrect value.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0019'	USF6SMAI	SNASVCMG MODE ALREADY INITIALIZED

An APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was issued in order to initialize the SNASVCMG mode. However, it is already initialized, and no action was taken.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'001A'	USF6ALLS	ALL MODES SPECIFIED ON SINGLE SESSION LU

An APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was issued against all the mode names of the LU specified. However, the partner LU is single-session capable. Therefore, an APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction must be issued against a specific mode name.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'001B'	USF6SMSS	SNASVCMG OR CPSVCMG MODE FOR SINGLE SESSION LU

An APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was issued for the SNASVCMG or CPSVCMG mode name. However, the partner LU is single-session capable, and the SNASVCMG or CPSVCMG is not allowed.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'001C'	USF6SSMI	SINGLE SESSION, MODE ALREADY INITIALIZED

An APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was issued for a partner LU that is single-session capable. However, another of the LU's mode names is already initialized to nonzero session limits, and only one mode name can have nonzero session limits at a time.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'001E'	USF6CIDI	CID INVALID

The RPL's ARG field does not contain a valid session identifier (CID). You might have inadvertently modified the field or failed to set it in the first place, or you might have used the CID of a session that no longer exists.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'001F'	USF6APNA	APPCCMD ISSUED FOR NON-APPC

The application issued an APPCCMD against a non-LU 6.2 session or resource. The APPCCMD is rejected.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0020'	USF6PRRO	PREVIOUS REJECT REQUEST OUTSTANDING

An APPCCMD CONTROL=REJECT request was issued. However, a previous APPCCMD CONTROL=REJECT request has already been issued for the same resource. The later APPCCMD CONTROL=REJECT was rejected.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0021'	USF6DARJ	ABNORMAL DEALLOCATE REJECTED, RETRY

One of the following macroinstructions was issued:

- APPCCMD CONTROL=DEALLOC, QUALIFY=ABNDPROG
- APPCCMD CONTROL=DEALLOC, QUALIFY=ABNDSERV
- APPCCMD CONTROL=DEALLOC, QUALIFY=ABNDTIME
- APPCCMD CONTROL=DEALLOC, QUALIFY=ABNDUSER.

However, a prior macroinstruction that cannot be cancelled is outstanding. The command is not allowed in this case and is rejected. This command also is not allowed to be issued when the conversation is in RECEIVE state and no data has been received for the conversation. APPCCMD CONTROL=REJECT, QUALIFY=CONV can be issued to terminate the conversation and session in this case.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0022'	USF6IVCQ	INVALID CONTROL OR QUALIFY VALUE

An undefined value for the CONTROL or QUALIFY keyword was specified, or a QUALIFY value is not valid to use with the specified CONTROL value. For CONTROL types that do not use a QUALIFY value, RPL6QUAL must be set to zero.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0023'	USF6INSI	INVALID SESSION INSTANCE IDENTIFIER

VTAM rejected an APPCCMD CONTROL=REJECT, QUALIFY=SESSION request or an APPCCMD CONTROL=SETSESS, QUALIFY=SUSPEND request or an APPCCMD CONTROL=SETSESS, QUALIFY=RESUME request because the local application specified:

- A session instance identifier for a session that was not active at the time of the request
- A session ID length that was not valid.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0024'	USF6PSHI	PS HEADER NOT SUPPLIED

VTAM rejected the APPCCMD CONTROL=SEND request because the local application did not supply a complete PS header. (For example, the PS header length and data following are missing.)

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0025'	USF6PSLI	PS HEADER LENGTH IS INSUFFICIENT

VTAM rejected the APPCCMD CONTROL=SEND request because the local application specified an insufficient PS header length (the length equals 0).

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0026'	USF6NMSC	SESSION INSTANCE IDENTIFIER AND CONVERSATION IDENTIFIER MISMATCH

VTAM rejected the APPCCMD CONTROL=SETSESS, QUALIFY=SUSPEND request because the application program requested a session with APPCCMD CONTROL=SETSESS, QUALIFY=SUSPEND, but the conversation identified by CONVID was not currently assigned to the session identified by SESSID. VTAM rejected the request and nothing was suspended.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0027'	USF6IDET	INVALID DEACTIVATION TYPE CODE

VTAM rejected the APPCCMD CONTROL=REJECT, QUALIFY=SESSION request because the local application program omitted the DEACTYP parameter or specified an UNBIND deactivation type code value other than cleanup (X'0F') or protocol violation (X'FE'). The session has been successfully deactivated with UNBIND (X'0F').

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0028'	USF6NCRY	CRYPTOGRAPHY NOT ALLOWED ON MODE

An APPCCMD CONTROL=SEND, an APPCCMD CONTROL=PREPRCV, or an APPCCMD CONTROL=DEALLOC macroinstruction is rejected because CRYPT=YES is specified, and the mode does not support encryption.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0029'	USF6INLI	INVALID LIST VALUE SPECIFIED ON APPCCMD FOR RESTORE

The value for the LIST field in the RPL is not equal to NONE, ALL, or NOSESS. The keyword LIST=ALL, LIST=NONE, or LIST=NOSESS can be specified on the APPCCMD CONTROL=OPRCNTL, QUALIFY=RESTORE macroinstruction.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'002A'	USF6INCG	INVALID CGID VALUE SPECIFIED

A macroinstruction was issued specifying CONVGRP, but the conversation group ID (CGID) was not valid. You might have unintentionally modified the field, failed to set it correctly, or used a CGID that corresponds to a session that no longer exists.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'002B'	USF6NONI	NETWORK-QUALIFIED NAME REQUIRED

NETID was not coded on the APPCCMD although PARMS=(NQNAMES=YES) was coded on the ACB macroinstruction.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'002C'	USF6INEL	PARAMETER ERROR - INVALID EXPEDITED DATA LENGTH

An APPCCMD CONTROL=SENDEXPD was issued that specified an expedited data length of zero or an expedited data length greater than the allowed maximum. The largest expedited data size that can be sent with one macroinstruction invocation is 86 bytes.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'002D'	USF6INSC	PARAMETER ERROR - INVALID SENSE CODE VALUE SPECIFIED

An APPCCMD CONTROL=DEALLOC|DEALLOCQ,QUALIFY=ABNDUSER was specified with a sense code that was not an allocation or abnormal deallocation sense code value.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'002E'	USF6VANV	VECTOR AREA NOT VALID

The application supplied VTAM with a vector area address that is not valid or is write-protected.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'002F'	USF6VALI	VECTOR AREA LENGTH INSUFFICIENT

The application supplied VTAM with a vector area which is smaller than the minimum required size.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0030'	USF6STNV	PARAMETER_ERROR— STORAGE_TYPE_NOT_VALID

A storage type indication was not supplied or is invalid. Storage type is required to be specified via the ISTAPC82 mapping DSECT which is mapped within the ISTAPCVL mapping DSECT.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0031'	USF6VALS	PARAMETER_ERROR— SENDRCV_SPECIFIED_WITHOUT_ OPTCD=BUFFLST|XBUFLST

The APPCCMD CONTROL=SENDRCV was issued without specifying a buffer. OPTCD=BUFFLST|XBUFLST is required for this macroinstruction.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0032'	USF6UNXV	PARAMETER_ERROR— UNEXPECTED_VECTOR_PROVIDED_ON_APPCCMD

An unexpected vector was provided on an APPCCMD request. An input vector is not defined for the APPCCMD.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0033'	USF6VNPV	PARAMETER_ERROR— A_REQUIRED_VECTOR_WAS_NOT_PROVIDED_ OR_SPECIFIED_INCORRECTLY

A required input vector was either not provided or specified incorrectly on an APPCCMD request.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'002C'	X'0034'	USF6LNSP	PASSWORD_SUBSTITUTION_VALUE_SET_IN_ERROR

| The FMH-5 received from the application indicated password substitution in byte 4, bit 3. The session
| established with the partner does not support password substitution. Reissue the macroinstruction with
| this bit setting off.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0030'	X'0000'	USF6PENT	PROGRAM ERROR NO TRUNCATION

The remote transaction program issued an LU 6.2 SEND_ERROR verb specifying the TYPE(PROG) parameter; the conversation for the remote program was in a sending state; and the LU 6.2 SEND_ERROR verb did not truncate a logical record. No truncation occurs when a transaction program issues the LU 6.2 SEND_ERROR verb before sending any logical records or after sending a complete logical record. This return code is reported to the local application program when it issues an APPCCMD CONTROL=RECEIVE macroinstruction prior to receiving any logical records or after receiving one or more complete logical records.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0034'	X'0000'	USF6PEPU	PROGRAM ERROR PURGING

The remote transaction program issued an LU 6.2 SEND_ERROR verb, specifying the TYPE(PROG) parameter, and the conversation for the remote transaction program was in RECEIVE state. The LU 6.2 SEND_ERROR verb might have caused information to be purged. Purging occurs when a transaction program issues the LU 6.2 SEND_ERROR verb in RECEIVE state before receiving all the information sent by the local application, that is, all the information sent prior to the reporting of the PROGRAM_ERROR_PURGING return code to the local application. The purging can occur at the local LU, the remote LU, or both. No purging occurs when a transaction program issues the LU 6.2 SEND_ERROR verb in a CONFIRM state, or in RECEIVE state after receiving all the information sent by the local application. This RCPRI code is normally reported to the local application on an APPCCMD it issues after sending some information to the remote transaction program. However, the RCPRI code can be reported on an APPCCMD the application issues prior to sending any information, depending on the CONTROL and QUALIFY fields of the APPCCMD and when it is issued. The conversation is in RECEIVE state.

Note: This code is never reported on an APPCCMD issued on a full-duplex conversation.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0038'	X'0000'	USF6PETR	PROGRAM ERROR TRUNCATING

The remote transaction program issued an LU 6.2 SEND_ERROR verb, specifying the TYPE(PROG) parameter; the conversation for the remote transaction program was in a sending state; and the LU 6.2 SEND_ERROR verb truncated a logical record. Truncation occurs when a transaction program begins sending a logical record and then issues the LU 6.2 SEND_ERROR verb before sending the complete logical record. This return code is reported to the local application on an APPCCMD CONTROL=RECEIVE macroinstruction issued after receiving the truncated logical record. The conversation state is unchanged.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'003C'	X'0000'	USF6SENT	SERVICE ERROR NO TRUNCATION

The remote transaction program issued an LU 6.2 SEND_ERROR verb, specifying the TYPE(SVC) parameter; the conversation for the remote transaction program was in a sending state; and the LU 6.2 SEND_ERROR verb did not truncate a logical record. No truncation occurs when a transaction program issues the LU 6.2 SEND_ERROR verb before sending any logical records or after sending a complete logical record. This return code is reported to the local application on an APPCCMD CONTROL=RECEIVE macroinstruction it issues prior to receiving any logical records or after receiving one or more complete logical records. The conversation state is unchanged.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0040'	X'0000'	USF6SEPU	SERVICE ERROR PURGING

The remote transaction program issued an LU 6.2 SEND_ERROR verb, specifying the TYPE(SVC) parameter, and the conversation for the remote transaction program was in RECEIVE state. The LU 6.2 SEND_ERROR verb might have caused information to be purged. Purging occurs when a transaction program issues the LU 6.2 SEND_ERROR verb in RECEIVE state before receiving all the information sent by the local application, that is, all the information sent prior to the reporting of the SERVICE_ERROR_PURGING return code to the local application. The purging can occur at the local LU, the remote LU, or both. No purging occurs when a transaction program issues the LU 6.2 SEND_ERROR verb in a CONFIRM state, or in RECEIVE state after receiving all the information sent by the local application. This return code is normally reported to the local application on an APPCCMD it issues after sending some information to the remote transaction program. However, the return code can be reported on an APPCCMD the application issues prior to sending any information, depending on the CONTROL and QUALIFY fields of the APPCCMD and when it is issued. The conversation is in RECEIVE state.

Note: This code is never reported on an APPCCMD issued on a full-duplex conversation.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0044'	X'0000'	USF6SETR	SERVICE ERROR TRUNCATING

The remote transaction program issued an LU 6.2 SEND_ERROR verb, specifying the TYPE(SVC) parameter; the conversation for the remote transaction program was in a sending state; and the LU 6.2 SEND_ERROR verb truncated a logical record. Truncation occurs when a program begins sending a logical record and then issues the LU 6.2 SEND_ERROR verb before sending the complete logical record. This return code is reported to the local application on an APPCCMD CONTROL=RECEIVE macroinstruction issued after receiving the truncated logical record. The conversation state is unchanged.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0048'	X'0000'	USF6RFNR	RESOURCE FAILURE, NO RETRY

A failure occurred that caused the conversation to be prematurely terminated. For example, the session being used for the conversation was deactivated because of a session protocol error. The condition is not temporary, and the application should not retry the transaction until the condition is corrected. The conversation is in END_CONV or FDX_RESET state if no log data is present. If log data is present, the conversation is in PEND_END_CONV_LOG or PEND_RESET_LOG state.

Two common failures are:

1. Local LU sends unexpected control information.

   For example, the conversation can be in PENDING_DEALLOCATE state, but something other than a deallocate is received, or an FMH-7 is not received when it is expected.

2. Local LU sends unexpected data on the conversation.

   For example, a logical record that is not valid, PS header or FMH-7, might have been received, or a logical record is truncated by something other than an FMH-7.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'004C'	X'0000'	USF6RFRE	RESOURCE FAILURE, RETRY

A failure occurred that caused the conversation to be prematurely terminated. For example, the session being used for the conversation was deactivated because of a session outage, such as a line failure or a modem failure. The application can retry the transaction when the error that caused the session outage has been corrected. The conversation is in END_CONV or FDX_RESET state.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0050'	X'0000'	USF6STER	STATE ERROR

The specified conversation was not in an appropriate state to issue the specified APPCCMD. For example, the application program issued APPCCMD CONTROL=SEND, QUALIFY=DATA, but the conversation was in RECEIVE state. The state of the conversation remains unchanged.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0054'	X'0000'	USF6URMD	UNRECOGNIZED MODE NAME

The APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction did not execute successfully because the partner LU does not recognize the specified mode name. The local and partner LUs' CNOS parameters are not changed.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0058'	X'0000'	USF6UNSC	UNSUCCESSFUL, SESSION NOT AVAILABLE

The APPCCMD CONTROL=ALLOC, QUALIFY=IMMED macroinstruction issued by the local application program did not execute successfully because there was not a contention-winner session available for use by a new conversation request. This RCPRI code is returned on the unsuccessful APPCCMD.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'005C'	(all)	USF6UECR	USER ERROR CODE RECEIVED

An FMH-7 was received that contained a sense code not interpreted by VTAM. The unrecognized sense code is passed to the application program through the SENSE field in the RPL extension. The application program must determine whether the sense code is a valid user-supplied sense code or a code that is not valid. The USER_ERROR_CODE_RECEIVED RCPRI code together with the following RCSEC subcodes (X'0000' X'0001') form the complete return code that is returned to the application. The subcode specifies whether a negative response preceded the FMH-7 containing the unrecognized sense code. The conversation is in a receiving state.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'005C'	X'0000'	USF6FNGR	FOLLOWING NEGATIVE RESPONSE

The FMH-7 containing the unrecognized sense code was received by VTAM following the receipt of a negative response.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'005C'	X'0001'	USF6WNGR	WITHOUT NEGATIVE RESPONSE

The FMH-7 containing the unrecognized sense code was not preceded by a negative response.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0060'	X'0000'	USF6NOFM	NO FMH5 AVAILABLE

The application issued an APPCCMD CONTROL=RCVFMH5, but there is currently no FMH-5 waiting to be received by the application program.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0064'	X'0000'	USF6ACFL	ACTIVATION FAILURE

An APPCCMD CONTROL=OPRCNTL, QUALIFY=ACTSESS macroinstruction did not execute successfully because activation for the pending active session failed. For example, the path between the application and the other LU could have been lost.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0068'	X'0000'	USF6SLEX	LU MODE SESSION LIMIT EXCEEDED

An APPCCMD CONTROL=OPRCNTL, QUALIFY=ACTSESS macroinstruction did not execute successfully because activating the pending active session would have caused the session limits for the mode name group to be exceeded.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'006C'	X'0000'	USF6SACT	SESSION NOT PENDING

An APPCCMD CONTROL=OPRCNTL, QUALIFY=ACTSESS or QUALIFY=DACTSESS macroinstruction was issued for a session that is no longer pending. The CID for the session is valid but a BIND or CINIT is no longer queued, or the session is being deactivated due to a previous error or request.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0070'	X'0000'	USF6STOR	TEMPORARY STORAGE SHORTAGE OR RESOURCE SHORTAGE

VTAM is unable to process the request because of a temporary storage shortage, a resource shortage, or other shortage.

- If a sense code is not provided, a temporary storage shortage has occurred.

- If a sense code is provided indicating insufficient resources, then a storage shortage or other resource shortage has occurred.

  In either of these cases, the request can be reissued (with EXECRPL, for example.) There is no state change. This return code is reported to the application program to allow time for the problem to diminish or disappear. If VTAM attempts to retry the request, the additional storage might not be available immediately, and the problem might occur again.

- If a sense code is provided other than one for insufficient resources, examine the sense code explanation to determine the action required. In this situation, whether the request can be reissued depends on the information contained in the sense code.

| • If this return code is received at the completion of an APPCCMD with CONTROL=RECEIVE, OPTCD=(,XBUFLST), then a CSM buffer that meets the storage type specified in the XBUFLST-receive vector could not be obtained to receive the data, or other VTAM internal resources required to receive the data could not be obtained. The system is storage constrained. No data is received.

  The application can take several possible actions:

  – Reissue the APPCCMD several times as a temporary retry recovery action.

  – Issue a receive without the XBUFLST specification so the data can be copied into application private storage.

  – Explicitly deallocate the conversation via APPCCMD services.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0074'	X'0000'	USF6HALT	HALT ISSUED

The operator has issued a HALT command. Depending on the type of HALT, the application program can no longer issue certain macroinstructions. See “TPEND” in the *VTAM Guide to Programming for LU 6.2* for more information on the effect of HALT upon the application.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0078'	X'0000'	USF6VIYA	VTAM INACTIVE FOR YOUR ACB

The association between VTAM and the application program (ACB) that was established with the OPEN macroinstruction has been broken (the ACB is in the process of being closed). This might have occurred because:

- The application program has elsewhere issued a CLOSE that has not yet completed
- VTAM has become inactive
- A VARY NET,INACT command was issued for the application program.

Any active conversations are placed in END_CONV or FDX_RESET state.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'007C'	X'0000'	USF6RQAB	REQUEST ABORTED

VTAM has rejected a request because of an error detected while processing the request or because of an error in the associated session, task, or address space. For example, an abend. If an abend code is available, see Chapter 6, “Abend Codes” on page 6-1 to interpret the code. An abend might or might not be retried.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0080'	X'0000'	USF6DLNR	DEALLOCATE NORMAL

The remote transaction program issued an LU 6.2 DEALLOCATE TYPE(FLUSH) verb. This return code is reported to the application program on an APPCCMD CONTROL=SEND, QUALIFY=ERROR macroinstruction issued when the conversation is in RECEIVE state. The conversation is in END_CONV state. The conversation can be in RECEIVE state or in PEND_RCV_LOG state. This return code applies only to half-duplex conversations.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0084'	X'0000'	USF6STSH	STORAGE SHORTAGE

| Indicates VTAM has encountered a storage shortage when attempting to satisfy an APPCCMD
| CONTROL=RECEIVE or an APPCCMD CONTROL=RCVFMH5, either while storing incoming data or sending a pacing response. There is no state change.

This return code can also be issued when a storage failure occurs while processing an internal DEALLOC FLUSH request. VTAM does internal DEALLOC FLUSH processing when it receives an indication that the partner has issued an abnormal deallocation request on the full-duplex conversation.

The application should issue one of the abnormal termination APPCCMD CONTROL=DEALLOC|DEALLOCQ macroinstructions to end the conversation.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0088'	X'0000'	USF6CREJ	CANCELED BY REJECT OR ABNORMAL DEALLOCATE

The request, while in progress, was canceled by the issuance of an APPCCMD CONTROL=REJECT or abnormal deallocation APPCCMD, which has requested the termination of the current conversation and, possibly, the session.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'008C'	X'0000'	USF6PROE	PARTNER COMMITTED PROTOCOL VIOLATION

The partner LU has violated conversation protocols during the execution of this command. Notification of conversation failure will be received on a subsequent APPCCMD command. There is no state change.

Two common protocol violations are:

- Partner LU sends unexpected control information.

  For example, the conversation can be in PENDING_DEALLOCATE state, but something other than a deallocate is received, or an FMH-7 is not received when it is expected.

- Partner LU sends unexpected data on the conversation.

  For example, a logical record that is not valid, PS header or FMH-7, might have been received, or a logical record is truncated by something other than an FMH-7.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0090'	X'0000'	USF6NOTA	APPLICATION NOT APPC CAPABLE

The application program issued an APPCCMD, but the application program has APPC=NO coded on its APPL definition statement. The APPL definition statement must have APPC=YES coded before the application program can issue APPCCMD macroinstructions.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0094'	X'0000'	USF6SDRJ	INVALID CONDITION FOR SENDING DATA

This indicates that the application program issued an APPCCMD that provided data to be sent following an error on a previous QUALIFY=DATAFLU or QUALIFY=DATACON type of send (either CONTROL=SEND, CONTROL=PREPRCV or CONTROL=DEALLOC). However, data remains, held by VTAM, from the error on the previous DATAFLU or DATACON macroinstruction.

Before sending more data, issue a macroinstruction that flushes VTAM's buffers. An APPCCMD CONTROL=SEND, QUALIFY=FLUSH macroinstruction, an APPCCMD CONTROL=SEND, QUALIFY=ERROR macroinstruction, or one of the abnormal termination CONTROL=DEALLOC macroinstructions will flush the send data queue so that processing can continue.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'0098'	X'0000'	USF6STGS	TEMPORARY STORAGE SHORTAGE WHILE SENDING DATA

This indicates a temporary storage shortage has occurred while sending data. This RCPRI, RCSEC combination might be returned for one of the following macroinstructions:

- APPCCMD CONTROL=DEALLOC, QUALIFY=ABNDPROG
- APPCCMD CONTROL=DEALLOC, QUALIFY=ABNDSERV
- APPCCMD CONTROL=DEALLOC, QUALIFY=ABNDTIME
- APPCCMD CONTROL=DEALLOC, QUALIFY=ABNDUSER
- APPCCMD CONTROL=DEALLOCQ, QUALIFY=ABNDPROG
- APPCCMD CONTROL=DEALLOCQ, QUALIFY=ABNDSERV
- APPCCMD CONTROL=DEALLOCQ, QUALIFY=ABNDTIME
- APPCCMD CONTROL=DEALLOCQ, QUALIFY=ABNDUSER
- APPCCMD CONTROL=DEALLOC, QUALIFY=DATACON
- APPCCMD CONTROL=DEALLOC, QUALIFY=DATAFLU
- APPCCMD CONTROL=PREPRCV, QUALIFY=DATACON
- APPCCMD CONTROL=PREPRCV, QUALIFY=DATAFLU
- APPCCMD CONTROL=SEND, QUALIFY=DATA
- APPCCMD CONTROL=SEND, QUALIFY=DATACON
- APPCCMD CONTROL=SEND, QUALIFY=DATAFLU
- APPCCMD CONTROL=SEND, QUALIFY=ERROR
- APPCCMD CONTROL=SENDRCV, QUALIFY=DATAFLU.

The current position in the application-supplied data buffer (the area pointed to by the AREA field of the RPL) is returned in RPL6STBF (the current buffer) and RPL6STDS (displacement in the data). All data prior to this buffer or buffer list entry has been sent.

The user has two alternatives when this return code is received.

- Attempt to continue sending data on the conversation by issuing an APPCCMD macroinstruction with the data pointers and length set to reflect the values returned in RPL6STBF and RPL6STDS. The subsequent macroinstruction must be issued with the AREA field set with the RPL6STBF value plus the RPL6STDS value to avoid duplicating any data already sent. The data length (the RECLEN field in the RPL) must also be adjusted to indicate the amount of remaining data. Once the subsequent macroinstruction with the updated data location completes successfully, the conversation can be continued as if the storage shortage did not occur.

  For more information on how to process the remaining data, see “Handling Storage Shortages” in the *VTAM Guide to Programming for LU 6.2*.

- Deactivate the conversation by issuing one of the abnormal termination CONTROL=DEALLOC macroinstructions, or APPCCMD CONTROL=REJECT macroinstructions. Note that REJECT must be issued to deactivate a conversation if the abnormal termination CONTROL=DEALLOC macroinstructions are unsuccessful.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'009C'	X'0001'	USF6RSTF	RESTORE REJECTED—RESTORE ISSUED BEFORE SETLOGON START

The APPCCMD CONTROL=OPRCNTL, QUALIFY=RESTORE macroinstruction is issued before the SETLOGON START macroinstruction is issued.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A0'	(all)	USF6RNAL	REQUEST NOT ALLOWED

VTAM rejected the APPCCMD because the macroinstruction request conflicts in some way with the capabilities of the session or conversation to which it applies. The REQUEST_NOT_ALLOWED RCPRI code together with one of the following RCSEC subcodes form the complete return code that is returned to the transaction program.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A0'	X'0001'	USF6LNSE	LU PAIR DOES NOT SUPPORT SENDING EXPEDITED DATA

VTAM rejected the APPCCMD CONTROL=SENDEXPD because the negotiated support level of the current session does not support protocols needed to transmit expedited data.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A0'	X'0002'	USF6RQBL	REQUEST BLOCKED

VTAM rejected the APPCCMD because the conversation with which it is associated is in the process of being deallocated or terminated.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A0'	X'0003'	USF6RNEX	EXECUTION OF REQUEST TERMINATED

VTAM rejected an APPCCMD CONTROL=RCVEXPD, QUALIFY=SPEC on a half-duplex conversation because the partner LU is awaiting a change-direction or end-of-chain indicator before sending error information. No expedited information was available to be received.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A0'	X'0004'	USF6VNVF	CONTROL/QUALIFY VALUE INVALID FOR FULL-DUPLEX CONVERSATION

VTAM rejected the APPCCMD because the CONTROL= and QUALIFY= value combination specified is not allowed for a full-duplex conversation.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A0'	X'0005'	USF6EXRO	RSP HAS NOT BEEN RECEIVED FOR A PREVIOUS SENDEXPD REQUEST

VTAM rejected a APPCCMD CONTROL=SENDEXPD,QUALIFY=DATA or an APPCCMD CONTROL=SEND, QUALIFY=RQSEND because the response to a previously issued APPCCMD CONTROL=SENDEXPD,QUALIFY=DATA had not been received from the partner LU.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00A0'	X'0006'	USF6NAUT	PROGRAM_NOT_AUTHORIZED_FOR_ REQUESTED_FUNCTION

An application not using VTAM authorized path attempted to use the HPDT interface. The request is disallowed.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00A0'	X'0008'	USF6ENEL	NAMED RESOURCE NOT ELIGIBLE FOR REQUESTED ALTERATION

A MODIFY DEFINE command with DELETE=UNUSE was issued for an entry in the LU-mode table, but the entry type is not UNUSABLE.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00A4'	X'0000'	USF6SPMD	MODE MUST BE RESTORED BEFORE USING

An APPCCMD macroinstruction is issued with a mode name that is pending recovery for persistent LU-LU sessions. Issue the APPCCMD CONTROL=OPRCNTL, QUALIFY=RESTORE macroinstruction to restore the mode.

Note: For more information on which macroinstructions can be issued for modes that are pending recovery for persistent LU-LU sessions, See “Restoring Modes and Any Associated Persistent LU-LU Sessions ” in the *VTAM Guide to Programming for LU 6.2*.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00A8'	(all)	USF6ENVE	ENVIRONMENT ERROR

A macroinstruction has failed for some reason related to the system environment in which the request was processed. The RCSEC subcode identifies the specific error.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00A8'	X'0000'	USF6OSLV	OS LEVEL DOES NOT SUPPORT REQUESTED FUNCTION

A macroinstruction request required the use of an operating system service which is not supported by the active operating system level. For example, a cross-memory macroinstruction request was issued, but the MVS/ESA* level was below Version 4.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00A8'	X'0001'	USF6XMES	SUSPEND FAILURE

VTAM attempted to suspend processing of an APPCCMD macroinstruction issued in either cross-memory mode or in synchronous SRB-mode with OPTCD=KEEPSRB specified. The attempt failed, probably due to conditions in the operation system environment. The application may reissue the request.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00A8'	X'0002'	USF6XMER	RESUME FAILURE

VTAM attempted to resume processing of an APPCCMD macroinstruction issued in either cross-memory mode or in synchronous SRB-mode with OPTCD=KEEPSRB specified. The attempt failed. VTAM is unable to post the request complete. If the application has a LOSTERM exit, it will be scheduled with a reason code of 44. For more information about the LOSTERM exit, see *VTAM Programming*. The RPL is now available for reuse.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00AC'	(all)	USF6ERIN	ERROR INDICATION RECEIVED

VTAM's processing of an APPCCMD request stored on the SEND queue of a full-duplex conversation was ended because the remote transaction program or LU issued an LU 6.2 architecture verb that cancelled further processing of the request. An associated Secondary Return Code value indicates the type of operation that caused the request to be ended.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00AC'	X'0001'	USF6EIAS	DEALLOCATE ABEND PROGRAM

An APPCCMD that processes on the SEND queue of a full-duplex conversation was terminated because an abnormal deallocation request was issued by the remote transaction program. The FMH-7 received from the partner LU carried a sense code indicating that the remote transaction program issued a DEALLOCATE verb with TYPE(ABEND_PROG).

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00AC'	X'0002'	USF6ERAS	DEALLOCATE ABEND SERVICE

An APPCCMD that processes on the SEND queue of a full-duplex conversation was terminated because an abnormal deallocation request was issued by the remote transaction program. The FMH-7 received from the partner LU carried a sense code indicating that the remote transaction program issued a DEALLOCATE verb with TYPE(ABEND_SVC).

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00AC'	X'0003'	USF6EIAT	DEALLOCATE ABEND TIME

An APPCCMD that processes on the SEND queue of a full-duplex conversation was terminated because an abnormal deallocation request was issued by the remote transaction program. The FMH-7 received from the partner LU carried a sense code indicating that the remote transaction program issued a DEALLOCATE verb with TYPE(ABEND_TIMER).

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00AC'	X'0004'	USF6EIAT	ALLOCATION ERROR

An APPCCMD that processes on the SEND queue of a full-duplex conversation was terminated because an abnormal deallocation request was issued by the remote transaction program. The FMH-7 received from the partner LU carried a sense code indicating that an Allocation request was rejected by the remote transaction program.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00AC'	X'0005'	USF6EIUN	UNKNOWN ERROR CODE

An APPCCMD that processes on the SEND queue of a full-duplex conversation was terminated because an abnormal deallocation request was issued by the remote transaction program. The FMH-7 received from the partner LU carried a sense code other than the Deallocate ABEND, Allocation Error, or Resource Failure codes. The application program must determine whether the sense code is a valid user-supplied sense code or is an invalid code.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00AC'	X'0006'	USF6EIRR	RESOURCE FAILURE, RETRY

An APPCCMD that processes on the SEND queue of a full-duplex conversation was terminated because a failure occurred that caused the conversation to be prematurely terminated. The application can retry the transaction when the error that caused the session outage has been corrected.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00AC'	X'0007'	USF6EIRN	RESOURCE FAILURE, NO RETRY

An APPCCMD that processes on the SEND queue of a full-duplex conversation was terminated because a failure occurred that caused the conversation to be prematurely terminated. The condition is not temporary, and the application should not retry the transaction until the condition is corrected.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00B0'	X'(all)'	USF6NRER	NAME RESOLUTION ERROR

VTAM rejected an APPCCMD because there was an inappropriate name translation. The NAME_RESOLUTION_ERROR RCPRI code together with one of the following RCSEC subcodes form the complete return code that is returned to the transaction program.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00B0'	X'0001'	USF6NRRE	LUNAME FOUND IN A VARIANT NAME ENTRY

VTAM rejected an APPCCMD because the LUNAME specified on the macroinstruction was found in a VARIANT_NAME entry in the LU-mode table.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00B0'	X'0002'	USF6NRRD	NAME RETURNED DIFFERS FROM ASSOCIATED NAME

VTAM rejected an APPCCMD because the BIND RSP contained an LUNAME that is different from the associated name in the SUPPLIED_NAME entry in the LU-mode table. The association of names for the partner LU had previously occurred.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00B0'	X'0003'	USF6NRRA	NAME RETURNED FOUND IN VARIANT_NAME ENTRY

VTAM rejected an APPCCMD because the LUNAME returned in the BIND RSP was found in a VARIANT_NAME entry in the LU-mode table. The association of names for the partner LU has not occurred.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00B0'	X'0004'	USF6NRAP	NAME RETURNED FOUND IN SUPPLIED_NAME ENTRY

VTAM rejected an APPCCMD because the LUNAME contained in the BIND RSP was found in a SUPPLIED_NAME entry in the LU-mode table. The SUPPLIED_NAME entry was different than the entry used in the session initiation.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00B0'	X'0005'	USF6NRNM	PARTNER NETWORK NAME MISMATCH

VTAM rejected an APPCCMD because the NETID contained in the BIND RSP was different than that previously saved in the LU-mode table for that LUNAME.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00B0'	X'0006'	USF6NRAV	LUNAME FOUND IN AN UNUSABLE_NAME ENTRY

VTAM rejected an APPCCMD because the LUNAME specified on the macroinstruction was found in an UNUSABLE_NAME entry in the LU-mode table.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00B0'	X'0007'	USF6NRRE	NAME RETURNED FOUND IN AN UNUSABLE_NAME ENTRY

VTAM rejected an APPCCMD because the partner LU returned an LUNAME in the BIND response that was found in an UNUSABLE_NAME entry in the LU-mode table.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00B0'	X'0008'	USF6NRDN	LU NAME FOUND IN A DISASSOCIATED_NAME ENTRY

VTAM rejected an APPCCMD macroinstruction request or an operator command because the LU name specified is a DISASSOCIATED_NAME entry. This type of entry has no mode values and thus has no sessions. The LU name was previously a VARIANT_NAME entry but is no longer associated with a SUPPLIED_NAME entry.

If the request or operator command was to display information about the LU, reissue the request with a with LOGMODE=0 and any LU-specific information will be returned.

If the request was for an allocate, a CNOS must be issued to establish mode information before the allocate can be retried.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00B4'	(all)	USF6CSME	CSM_DETECTED_ERROR

CSM detected an error. The CSM_DETECTED_ERROR RCPRI code together with one of the following RCSEC subcodes form the complete return code that is returned to the transaction program.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00B4'	X'0001'	USF6NSPC	CSM_DETECTED_ERROR—NOT_SPECIFIED

CSM detected a problem during APPCCMD processing of the request. The specific reason for the error is not passed back to the APPCCMD application.

Upon receipt of this return code the application can:

- Optionally consider the error temporary and retry the request several times.

  Note that it is possible that the error may not recur. This temporary error condition could occur in the case where a VTAM-built parameter list to CSM is randomly corrupted on a particular request, but not on a subsequent request.
- Consider the error permanent and terminate the conversation.

See Appendix A, “Return and Reason Codes for the IVTCSM Macroinstruction” in *VTAM Programming for CSM* for more information about these CSM errors.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00B4'	X'0002'	USF6IBTK	CSM_DETECTED_ERROR— INVALID_BUFFER_TOKEN_SPECIFIED

The communications storage manager (CSM) detected a problem during APPCCMD processing of the request. The specific reason for the error is that CSM detected that the CSM buffer token being used for the APPCCMD is not a valid CSM buffer token.

Upon receipt of this return code the application can:

- Check the current buffer pointer (RPL6STBF) in the RPL extension to determine the address of the buffer list entry that was processed when the error occurred.
- Optionally consider the error temporary and retry the request several times.

  Note that it is possible that the error may not recur. This temporary error condition could occur in the case where a VTAM-built parameter list to CSM is randomly corrupted on a particular request, but not on a subsequent request.

- Consider the error permanent and terminate the conversation.
- Continue using the conversation with a different CSM buffer.

See Appendix A, “Return and Reason Codes for the IVTCSM Macroinstruction” in *VTAM Programming for CSM* for more information about these CSM errors.

RCPRI	RCSEC	ISTUSFBC EQU Label	Meaning
X'00B4'	X'0003'	USF6IIID	CSM_DETECTED_ERROR— INVALID_INSTANCE_ID_SPECIFIED

The communications storage manager (CSM) detected a problem during APPCCMD processing of the request. The specific reason for the error is that CSM detected that the instance ID portion of the CSM buffer token being used for the APPCCMD is not a valid CSM instance ID. Since the instance ID is invalid, it is possible that the CSM buffer being specified on the APPCCMD has been previously freed and a new instance ID has been assigned to the storage by CSM.

Upon receipt of this return code the application can:

- Check the current buffer pointer (RPL6STBF) in the RPL extension to determine the address of the buffer list entry that was processed when the error occurred.
- Optionally consider the error temporary and retry the request several times.

  Note that it is possible that the error may not recur. This temporary error condition could occur in the case where a VTAM-built parameter list to CSM is randomly corrupted on a particular request, but not on a subsequent request.
- Consider the error permanent and terminate the conversation.
- Continue using the conversation with a different CSM buffer.

See Appendix A, “Return and Reason Codes for the IVTCSM Macroinstruction” in the *VTAM Programming for CSM* for more information about these CSM errors.

LAN Channel Station Error Return Codes

The LAN channel station error return codes provide a consistent platform to report the status of user requests or abnormal conditions detected by the service provider. The error return codes are used on the following occasions.

- If an error or exceptional condition is detected during the execution of a request, the error code is carried as the completion codes in the corresponding response.
- If an error or exception condition is asynchronously detected by the service provider while no related request from the service user is outstanding, the error code is reported as a part of the common status in a provider-initiated request, such as Close_Station_Indication.

The following list contains frequently used abbreviations.

802.2 IEEE LAN Standard 802.2

802.3 IEEE LAN Standard 802.3

802.4 IEEE LAN Standard 802.4

802.5 IEEE LAN Standard 802.5

IEEE Institute of Electrical and Electronic Engineers

LAN Local area network

LLC Logical link control

MAC Medium access control

SAP Service access point

The two-byte LAN return codes are based on the architectural layer that detected the error. Byte 0 is the general classification, and byte 1 is the specific completion code.

Byte 0—LAN General Classifications

- X'20' MAC generic

  This value is used for all MAC-level protocols, including high-level link control (HDLC) as well as LANs.
- X'22' MAC LAN specific

  This value is used for LAN MAC-level protocols.
- X'70' LLC generic

  This value is used for all LLC-level protocols.
- X'76' LLC LAN specific

  This value is used for LLC MAC-level protocols.

The following tables contain all the completion codes currently supported by link service architecture (LSA) for the LAN environment.

MAC Generic Codes

Code	Meaning	Explanation
2000	Done	The MAC command was successfully completed.
2001	Invalid identifier	The MAC detected that the data in the identifier field was blank, syntactically incorrect, or otherwise unrecognizable.
2002	State error	The MAC received a primitive that was illogical for the current MAC state.
2003	Invalid ID type	The MAC detected that the data in the ID type field was blank, syntactically incorrect, or otherwise unrecognizable.
2004	Invalid primitive	The MAC received a request with an invalid primitive code or a primitive code for an unsupported request.
2005	Invalid control information length	The MAC received a primitive in which the control information length was incorrect for the primitive type.
2006	Invalid length-of-data area	The MAC received a request with an invalid length-of-data area specified.
2007	Invalid interface data	The MAC detected that the data in the interface data field was missing, blank, syntactically incorrect, or otherwise unrecognizable.
2008	No resource	During initialization the MAC layer was unable to obtain a required resource. Processing cannot continue until the resource is available.
2009	MAC receive error	An error occurred while receiving a frame.
200A	Transmit error	An error occurred during the transmission of the information in a MAC_DATA request. As a result, the transmission was terminated.
200B	MAC unexpected interrupt	The MAC layer detected an unexpected (invalid) interrupt.
200C	Frame check sequence (FCS) threshold reached	The link threshold counter for the number of FCS errors reached its limit.
200D	Aborted by MAC_DEACTIVATE_SAP	The MAC issued a MAC_DEACTIVATE_SAP indication, requesting closing of the station.
200E	Path error	The MAC layer reported a path error, including hardware errors.
200F	Resource not available	A request for an unavailable resource was received.
2010	Layer already enabled	A request to enable a MAC layer was received for a layer that is already enabled. This code does not signify an error condition.
2011	Maximum MSDU size too large	MAC_ENABLE request received in which the size specified for the MAC service data unit is larger than the capabilities of the MAC layer.
2012	Invalid MSDU size	The size of the MAC service data unit in a MAC_DATA request is invalid.
2013	Invalid MAC instance	The MAC instance name specified is invalid.
2014	MAC layer not enabled	A request was made of the MAC layer, but the layer is not enabled.
2015	Invalid port ID	The port identifier specified in the corresponding request is invalid. The request is rejected.
2016	Invalid MAC address	The MAC address specified in the request is invalid.

Code	Meaning	Explanation
2017	SAP already activated	The SAP requested to be activated in the ACTIVATE_SAP request is already active. The request is rejected.
2018	Adapter disabled	The request is rejected because the MAC layer is not active.
2019	SAP ID not found SAP not activated	The provider SAP specified in the request could not be found or is not active.
201A	Invalid service type	Service type requested on the MAC_ACTIVATE_SAP request was not a type known to the MAC layer.
201B	Service already activated (user identified)	Service type requested in the MAC_ACTIVATE_SAP has already been specified by another user. The request is rejected.
201C	Service not previously activated	Service type to be deactivated in a MAC_DEACTIVATE_SAP request was not previously active.
201D	MAC disabled SAPs deactivated	MAC disabled and SAPs successfully deactivated.
201E	Layer enabled successfully	MAC_ENABLE request successfully completed.
201F	SAP deactivated	MAC_DEACTIVATE_SAP request successfully completed.

MAC LAN Specific Codes

Code	Meaning	Explanation
2201	Invalid Ether_type (802.3)	Type field specified for Ethernet was invalid. This is a completion code common to all primitives when Ethernet or IEEE 802.3 service is requested.
2202	Invalid Force_IMPL_enable (802.5)	This completion code is returned in response to a MAC_ENABLE request. A request to force a program load was invalid, possibly because the station has not allowed a remote program load.
2204	Invalid initialize options (802.5)	The parameters requested to initialize the token ring MAC layer are invalid.
2205	Invalid open options (802.5)	Some of the parameters on the MAC_ENABLE request are invalid. The request is rejected.
2206	Invalid Rx_burst_size (802.5)	When data was being received or repeated, a sequence of four or more half–bit times were received without transition. This occurrence is invalid in the token–ring protocol.
2207	Invalid group address	The group address specified in the MAC_ACTIVATE_SAP request is invalid. See the *IBM Token–Ring Network Architecture Reference* (SC30-3374) for the format of a group address.
2208	Invalid functional address (802.5)	This completion code applies only to token ring. The functional address specified in the MAC_ACTIVATE_SAP request is invalid or has the wrong format. See the *IBM Token–Ring Network Architecture Reference* (SC30-3374) for the format of the defined functional addresses.
2209	Group/logical address conflict	The group address specified in the MAC_ACTIVATE_SAP request is in conflict with previously assigned MAC group addresses.
220A	Function class conflict (802.5)	The functional address specified in the MAC_ACTIVATE_SAP request is in conflict with previously assigned MAC functional addresses. See the *IBM Token–Ring Network Architecture Reference* (SC30-3374)
220B	Duplicate MAC address	The MAC address specified in the MAC_ENABLE request is already present in the ring. The request is rejected in order to prevent duplicate addresses.
220C	Invalid attribute type	This completion code is returned in response to a RTV_ATTRIB request. It indicates that the attribute type specified in the primitive is invalid.
220D	Invalid frame priority	This completion code is returned in response to a MAC_DATA request. It indicates that the requested priority of the frame is invalid.
220E	Invalid function class vector length (802.5)	This completion code is returned in response to a MAC_ACTIVATE_SAP request. It indicates that the length specified in the request for the function class vector is invalid.
220F	Invalid function class (802.5)	This completion code is returned in response to a MAC_ACTIVATE_SAP request. It indicates that a function class specified in the request was invalid. See the *IBM Token–Ring Network Architecture Reference* (SC30-3374) for the valid function classes.

Code	Meaning	Explanation
2210	Invalid destination address	This completion code is returned in response to a MAC_DATA request. It indicates that the destination address specified in the request is invalid.
2211	Invalid frame type	This completion code is returned in response to a MAC_DATA request. It indicates that the frame type specified in the request is invalid. See the *IBM Token–Ring Network Architecture Reference* (SC30-3374) for a definition of the valid frame types.
2212	Invalid frame control	This completion code is returned in response to a MAC_DATA request. It indicates that the frame control field specified in the request is invalid. See the *IBM Token–Ring Network Architecture Reference* (SC30-3374) for a definition of the valid frame control fields.
2213	Unauthorized access priority	This completion code is returned in response to a MAC_DATA request. It indicates that the ring access priority requested for the frame is invalid. See the *IBM Token–Ring Network Architecture Reference* (SC30-3374) for a description of the priorities.
2214	Unauthorized MAC frame	This completion code is returned in response to a MAC_DATA request. It indicates that the MAC frame requested to be transmitted is not authorized. See the *IBM Token–Ring Network Architecture Reference* (SC30-3374) for a list of the various MAC frames and the authorization needed to transmit them.
2215	Address not recognized	This completion code is returned in response to a MAC_DATA request. It indicates that the MAC address specified in the frame was not recognized by any station on the local ring. Specifically, the address-recognized (A) bits were not set in the frame status field in the returned frame. See the *IBM Token–Ring Network Architecture Reference* (SC30-3374) for the format of the frame status field and the use of the A bits.
2216	Frame not copied	This completion code is returned in response to a MAC_DATA request. It indicates that the MAC address specified in the frame was recognized by a station on the ring, but the station was unable to copy the frame. Specifically, the address-recognized (A) bit was set, but the frame-copied (C) bits were not set in the returned frame. See the *IBM Token–Ring Network Architecture Reference* (SC30-3374) for format of the frame status field and the use of the A and C bits.
2217	Ring status error (802.5)	An error occurred on the ring during the processing of the request.
2218	Adapter check error	An adapter check occurred when processing the corresponding request.
2219	Invalid force IMPL enable (802.5)	A program load was requested but was invalid.
221A	Open error (802.5)	This completion code is returned in response to a MAC_ENABLE request. It indicates that an error occurred when attempting to enable the MAC layer.
221B	Invalid mode (802.3/4)	This completion code is returned in response to a MAC_ENABLE request. It indicates that a copy was requested but was invalid.

Code	Meaning	Explanation
221C	Invalid net type (802.3)	This completion code indicates that the net type specified in the request is invalid.
221D	Invalid In_ring_desired (802.4)	This completion code is returned in response to a MAC_ENABLE request. It indicates that the value specified for the In_ring_desired parameter is not one of the defined values.
221E	Invalid Min_Post_Silence_Preamble_Length (802.4)	This completion code is returned in response to a MAC_ENABLE request. It indicates that the value specified for the minimum time the station must idle after silence is invalid.
221F	Maximum Number of SAPs exceeded	This completion code is returned in response to a MAC_ACTIVATE_SAP request. It indicates that the maximum number of SAPs have been activated. The request is rejected.
2220	Invalid field length	This completion code is returned in response to a MAC_DATA request. It indicates that the length of the routing information field is larger than this MAC can handle.
2221	Invalid MSDU length	This completion code is returned in response to a MAC_DATA request. It indicates that the value specified as the length of the MAC service data unit is invalid.
2222	Retries exhausted	This completion code is returned in response to a request–with–response on a MAC_DATA request. It indicates that the protocol data unit (PDU) was transmitted such that the retries were exhausted, but no response was received. It is used in conjunction with LLC type 3 service.

LLC LAN Generic Codes

Code	Meaning	Explanation
7000	Done	The LLC command was successfully completed.
7001	Invalid ID	The LLC detected that the data in the ID field was blank, syntactically incorrect, or otherwise unrecognizable.
7002	State error	The LLC received a primitive that was illogical for the current LLC state.
7003	Invalid ID type	The LLC detected that the data in the ID type field was blank, syntactically incorrect, or otherwise unrecognizable.
7004	Invalid primitive	The LLC received a request with an invalid primitive code or a primitive code for an unsupported request.
7005	Invalid control information length	The LLC received a primitive in which the control information length was incorrect for the primitive type.
7006	Invalid length–of–data area	The LLC received a request with an invalid length–of–data area specified.
7007	Invalid interface data	The LLC detected that the data in the interface data field was missing, blank, syntactically incorrect, or otherwise unrecognizable.
7008	Primitive not recognized	The primitive code in the request received by LLC is not one of the recognized primitives. This return code indicates a LLC user error.
700B	Unsupported service type	An N_ACTIVATE_SAP or N_DEACTIVATE_SAP request was received, specifying an invalid service type.
700C	Service type not activated	An N_DEACTIVATE_SAP request was received, but the particular manager was not active. Either an N_ACTIVATE_SAP request was not issued or an N_DEACTIVATE_SAP request was issued prior to LLC receiving this request. This code usually indicates an LLC user error.
7010	Service type already activated	An N_ACTIVATE_SAP request was received, but the service was already active. This code usually indicates an LLC user error.
7012	Requestor not manager of service	An N_DEACTIVATE_SAP request was received on a CID (connection ID) other than that of the manager of the service. This code usually indicates an LLC user error.

LLC LAN Specific Codes

Code	Meaning	Explanation
7603	Layer instance program check	The instance of the LLC receiving the primitive encountered a program check. As a result the LLC layer was unable to process the request. This completion code can be used in response to any of the LLC primitives.
7604	System error	The system in which the LLC is running encountered an error. As a result, the LLC layer was unable to process the request. This completion code can be used in response to any of the LLC primitives.
7605	MAC instance not active or not running	A request has been made of the LLC layer, but the MAC instance is not active and running. As a result, the LLC layer is unable to process the request. This completion code can be returned for any of the LLC primitives.
7606	SAP(s) still active	This completion code is returned on the DL_ENABLE confirm primitive. The LLC layer received a request to disable the layer, but all the SAPs have not been closed.
7607	Layer enabled successfully	This completion code is returned in response to a DL_ENABLE request that completes successfully. This completion code is returned by LLC when the LLC layer is successfully enabled. It implies that the MAC layer was successfully enabled.
7608	Layer already enabled	This completion code is returned in response to a DL_ENABLE request, and does not indicate an error situation. The LLC received an ENABLE request, but the layer was already enabled.
7609	Station already opened	This completion code is returned in response to a DL_OPEN_STN request. It indicates that the station requested to be open has already been opened.
760A	New route for station	This completion code is returned in response to a DL_OPEN_STN request, DL_REQ_OPNSTN request, and DL_CONNECT request.
760B	Link disconnected; transmission retry count, N2, exceeded	This completion code is returned in response to a DL_DISCONNECT request. It indicates that the LLC layer tried to disconnect the link in an orderly fashion but could not get a response from the remote station. See the *IBM Token–Ring Network Architecture Reference* (SC30-3374) for information on the maximum number of transmissions, N2.
760C	Remote station in busy state	This completion code is returned in response to a DL_DATA request. It informs the user to temporarily stop sending data to the remote station until the busy condition is removed.
760D	Remote station in ready state	This completion code is returned in response to a DL_DATA request. It informs the user that the remote station is no longer in a busy state and that data may now be forwarded to the station.
760E	Mismatched XID type	This completion code is returned in response to a DL_ID request. It indicates that the XID returned in response to the request is of a different type. The XID data received in response is returned with this code in the DL_ID confirm.

Code	Meaning	Explanation
760F	Link disconnected, DISCONNECT received	This completion code is returned in response to a DL_DATA request. It indicates that a DISCONNECT command was received from the remote station when the local station was processing the DL_DATA request. The receipt of the frame associated with the DL_DATA request is not guaranteed.
7610	Link disconnected, Disconnected Mode Response received	This completion code is returned in response to either a DL_CONNECT request or a DL_DATA request. It indicates, respectively, that the remote station has rejected the DL_CONNECT request or that the remote station is in disconnected mode, respectively.
7611	SAP deactivated	This completion code is returned in response to a DL_DEACTIVATE_SAP request. It indicates that the SAP was successfully deactivated.
7612	Invalid MAC_type	This completion code is returned in response to a DL_ENABLE request. It indicates that the MAC_type specified in the primitive does not match any of the defined MAC types.
7613	Invalid LLC_instance name	This completion code is returned in response to a DL_ENABLE request. It indicates that the LLC_instance name specified in the primitive is invalid.
7614	Maximum LPDU size too large	This completion code is returned in response to a DL_ENABLE request. It indicates that the LPDU size requested is larger than the LLC or MAC can support.
7615	LLC layer not enabled	This completion code is returned in response to a DL_DISABLE or DL_ACTIVATE_SAP request. For the DL_DISABLE request it indicates that the LLC layer was not enabled when the request was received. For the DL_ACTIVATE_SAP request, it indicates that the LLC layer was not enabled as is necessary before activating a SAP.
7616	LSAP already in use	This completion code is returned in response to a DL_ACTIVATE_SAP request. The request is rejected because the SAP is already activated.
7617	Aborted by DL_DEACTIVATE_SAP	This completion code is returned in response to DL_ACTIVATE_SAP, DL_MODIFY_SAP, DL_OPEN_STN, DL_CLOSE_STN, DL_REQ_OPNSTN, DL_ID, DL_CONNECT, DL_DISCONNECT, DL_DATA, and DL_MSG requests. It indicates that the request could not be processed before the receipt of a DL_DEACTIVATE_SAP requesting the deactivation of the SAP on which the request was being processed.
7618	Invalid LLC_SAP_name	This completion code is returned in response to a DL_ACTIVATE_SAP request. It indicates that the LLC_SAP_name in the request was invalid.
7619	SAP ID not found SAP not activated	This completion code is returned in response to DL_MODIFY_SAP, DL_DEACTIVATE_SAP, DL_OPEN_STN, DL_CLOSE_STN, DL_REQ_OPNSTN, and DL_MSG requests.
761A	Invalid LSAP address	This completion code is returned in response to a DL_ACTIVATE_SAP request. It indicates that the request was rejected because the LSAP address provided with the primitive was invalid.

Code	Meaning	Explanation
761B	SAP ID not found	This completion code is returned in response to DL_OPEN_STN, DL_MODIFY_STN, DL_CLOSE_STN, DL_REQ_OPNSTN, DL_RTV_ATTRIB, DL_ID, DL_CONNECT, DL_DISCONNECT, DL_DATA, and DL_FLOW requests. It indicates that the SAP referenced in the request was not found. As a result, the request is rejected.
761C	Invalid station_name	This completion code is returned in response to DL_OPEN_STATION and DL_REQ_OPNSTN requests. It indicates that the station name specified in the primitive is invalid.
761D	Invalid DSAP	This completion code is returned in response to DL_OPEN_STN, DL_REQ_OPNSTN, and DL_MSG requests. It indicates that the DSAP specified in the primitive is invalid.
761E	Invalid class_of_service	This completion code is returned in response to DL_ENABLE and DL_ACTIVATE_SAP requests. It indicates that the class of service requested in the primitive was invalid.
761F	Invalid MAC SAP name	This completion code is returned in response to a DL_ENABLE request. It indicates that the MAC SAP name specified in the primitive is invalid.
7620	Invalid MAC_instance name	This completion code is returned in response to a DL_ENABLE request. It indicates that the MAC instance name specified in the primitive is invalid.
7621	Invalid MAC enable parameter	This completion code is returned in response to a DL_ENABLE request. It indicates that one of the MAC enable parameters is invalid.
7622	Invalid MAC SAP parameter	This completion code is returned in response to DL_ENABLE, DL_ACTIVATE_SAP, and DL_MODIFY_SAP requests. It indicates that the one of the MAC SAP parameters is invalid.
7623	Invalid LSAP_type	This completion code is returned in response to a DL_ACTIVATE_SAP request. It indicates that the LSAP type is invalid because it is not type 802.2, SNA, or IMPL server.
7624	Aborted by DL_DISCONNECT	This completion code is returned in response to a DL_DATA request. It indicates that the connection was disconnected prior to completion of the request to send data.
7625	Data_length exceeded maximum LPDU size	This completion code is returned in response to DL_DATA and DL_MSG requests. It indicates that the PDU size request is larger than the maximum LPDU size. The request is rejected.
7626	Link station not in connected state	This completion code is returned in response to DL_DATA and DL_FLOW requests. These requests require an established link station and a virtual link to the remote station. The request is rejected.

Code	Meaning	Explanation
7627	Invalid Link_Error_Recovery_Option	This completion code is returned in response to DL_OPEN_STN, DL_MODIFY_STN, and DL_REQ_OPNSTN requests. It indicates that the link-error-recovery option specified in the primitive is invalid.
7628	Invalid Send_Window_Size	This completion code is returned in response to DL_OPEN_STN, DL_MODIFY_STN, and DL_REQ_OPNSTN requests. It indicates that the send-window size specified in the primitive is invalid.
7629	Invalid ACK frequency, N3	This completion code is returned in response to DL_OPEN_STN, DL_MODIFY_STN, and DL_REQ_OPNSTN requests. It indicates that the send value specified for N3 in the primitive is invalid. See the *IBM Token–Ring Network Architecture Reference* (SC30-3374) for information on acknowledgement frequency, N3.
762A	Invalid dynamic window option	This completion code is returned in response to DL_OPEN_STN, DL_MODIFY_STN, and DL_REQ_OPNSTN requests. It indicates that the value for the dynamic-window option specified in the primitive is invalid.
762B	Invalid window step	This completion code is returned in response to DL_OPEN_STN, DL_MODIFY_STN, and DL_REQ_OPNSTN requests. It indicates that the value of the window-step parameter specified in the primitive is invalid.
762C	Invalid length-of-route field	This completion code is returned in response to DL_OPEN_STN, DL_MODIFY_STN, and DL_REQ_OPNSTN requests. It indicates that the length specified for the routing information field is invalid.
762D	Route not modified (station in connected state)	This completion code is returned in response to a DL_MODIFY_STN request. It indicates that because the station has a type 2 connection established with a remote station, the route cannot be changed. The request to change the route is rejected.
762E	Station of specified SAP ID not found	This completion code is returned in response to a DL_CLOSE_STN request. It indicates that the SAP identifier requested to be closed does not exist according to the LLC layer.
762F	Invalid XID type	This completion code is returned in response to a DL_ID request. It indicates that the XID type specified in the request was not known to the LLC layer.
7630	DL_CONNECT outstanding	DL_DISCONNECT request cannot be processed at this time because the connect request is still in process. The disconnect command is rejected.
7631	DL_DISCONNECT outstanding	DL_CONNECT request cannot be processed at this time because a disconnect request is still in process. The connect command is rejected.
7632	DL_SIM outstanding	DL_CONNECT request or DL_DISCONNECT request cannot be processed at this time because the SIM request is still in process.

Code	Meaning	Explanation
7633	Previous XID request outstanding	This completion code is returned in response to a DL_ID request. It indicates that a request to send an XID has not yet been completed. Only one XID request may be in process at a time.
7634	Requested class of service not supported	This completion code is returned in response to DL_ENABLE and DL_ACTIVATE_SAP requests. It indicates that the class of service specified is not supported by the LLC entity. The request is rejected.
7635	Invalid class_of_service	This completion code is returned in response to DL_ENABLE and DL_ACTIVATE_SAP requests. It indicates that the class of service requested in the primitive was not valid.
7636	Aborted by DL_CLOSE_STN	This completion code is returned in response to DL_OPEN_STN, DL_REQ_OPNSTN, DL_ID, DL_CONNECT, DL_DISCONNECT, and DL_DATA requests. It indicates that a Close Station was received before completing the processing of the request. The request is aborted.
7637	Failure to disable MAC instance	This completion code is returned in response to a DL_DISABLE request. In order to disable the LLC layer, the MAC layer must be disabled. This code indicates that there was a problem in disabling the MAC layer.
7638	MAC_ENABLE failed, no resource	This completion code is returned in response to a DL_ENABLE request. A MAC_ENABLE request was passed to MAC by LLC as a result of the DL_ENABLE request. The MAC_ENABLE request failed due to a lack of resource.
7639	MAC_ACTIVATE_SAP failed, no resource	This completion code is returned in response to a DL_ENABLE request. A MAC_ACTIVATE_SAP request was passed to MAC by LLC as a result of the DL_ACTIVATE_SAP request. The MAC_ACTIVATE_SAP request failed due to a lack of resource.
763A	Resource not available	This completion code is returned in response to a DL_ENABLE, DL_ACTIVATE_SAP, DL_OPEN_STN, and DL_REQ_OPNSTN requests. This code indicates that a resource needed to complete the request was not available.
763B	Route_Resolve failed	This completion code is returned in response to DL_OPEN_STN and DL_REQ_OPNSTN requests. This code indicates that the LLC layer was unable to determine a route through the network to the remote station.
763C	Link disconnected; transmission retry count, N2, exceeded	This completion code is returned in response to DL_CONNECT and DL_DATA requests. It indicates that the LLC layer tried to send the necessary PDU for the request but exhausted the retries. See the *IBM Token–Ring Network Architecture Reference* (SC30-3374) for information on the maximum number of transmissions, N2.
763D	Link resetting (FRMR sent out)	This completion code is returned in response to a DL_DATA request. The LLC layer detected a need to reset the link and sent a Frame-Reject to the remote station. The request is rejected.

Code	Meaning	Explanation
763E	Link resetting (FRMR received, SABME being sent)	This completion code is returned in response to a DL_DATA request. The remote LLC detected a need to reset the link and sent a frame-reject. The local LLC responded with a SABME to reset the link. The request is rejected.
763F	Link resetting (FRMR received, DISC being sent)	This completion code is returned in response to a DL_DATA request. The remote LLC detected a need to reset the link and sent a frame-reject. The local LLC responded with a DISC to terminate the link. The request is rejected.
7641	Required parameter(s) not provided	This completion code is returned if one or more of the required parameters for this primitive for which no default is available is coded as zero.
7642	Option(s) invalid or incompatible	The options specified in the parameter data field are not a valid combination, for example, an attempt is made to open a SAP that has an XID handling option different from that of the group SAP with which it is associated.
7643	Command canceled due to unrecoverable failure	This completion code is returned when a command causes an unrecoverable failure of the adapter.
7644	Unauthorized access priority	This completion code is returned if an incorrect access priority was requested from an Activate_SAP or Modify_SAP request.
7645	Command canceled, adapter was not enabled	This completion code is returned if the adapter specified in the command was never enabled.
7646	Command canceled, adapter closed while command in process	This completion code is returned if the adapter was closed while the command was in process. This could be due to an error condition, or to the receipt of a Deactivate_Subsystem request being received.
7647	Adapter already enabled	This completion code is returned on the Adapter_Enable confirm when the target adapter has already been enabled by another user. This code does not indicate an error situation.
7648	Adapter already enabled	This completion code is returned on the Adapter_Enable confirm when the target adapter has already been enabled by this user. This code indicates an error.
7649	Adapter already disabled	This completion code is returned on the Adapter_Disable confirm when the target adapter has already been disabled by this user. This code indicates an error.
764A	Adapter not enabled	This completion code is returned on the Adapter_Enable confirm when the target adapter cannot be enabled due to either a load failure or a hardware failure. This code indicates an error situation.
764B	Invalid adapter value	This completion code is returned if any primitive is received for an adapter that is not present.
764B	Invalid adapter value	This completion code is returned on any command targeted for an adapter that was not explicitly enabled by this user.
764D	Error on frame transmission	This completion code is returned on a Type I data transmission confirm if the receiving adapter did not copy the data frame from the token-ring network.

Code	Meaning	Explanation
764F	Error in frame transmit or strip process	This completion code is returned on a Type I data transmission confirm if an error was detected by the adapter either during frame transmission or when the frame was read back and checked.
7650	FRMR response received	Upon receipt of the FRMR response, the local LLC service provider has sent a RESET indication (local) to the LLC user.
7651	Timer expired and retry exhausted	A time-out condition has occurred, and the retry count is exhausted. The local LLC service provider has sent a Reset indication (local) to the LLC user.
7652	SABME received	The remote LLC has sent a SABME to the local LLC. The local LLC service provider has sent a Reset indication (remote) to the LLC user. etable.
7653	Link not transmitting I-frames State changed from link-opened	This completion code is returned on a LLC_DATA request if the link station leaves the link-opened state due to a received frame (e.g., DISC) or a timeout.
7655	Disconnected Mode Response received	This completion code is returned on the Close_Station_Indication. It indicates the reason the LLC service provider issued the request.
7656	DISC received	This completion code is returned on the Close_Station_Indication and provides the reason the LLC service provider issued the request. For example, this code is returned when a 3172 receives a Disconnect from a PC.
7657	Link connection INOP	This completion code is returned on the Close_Station_Indication and provides the reason the LLC service provider issued the request.
7658	Parameter exceeded maximum allowed	This completion code is a returned when a required parameter in the primitive data field exceeded the maximum allowed value. Retry with a valid value.
7659	Requested membership in non-existent group SAP	This completion code is returned if an Activate_SAP or Modify_SAP request is received, requesting membership in a group SAP that does not exist. See the *IBM Token–Ring Network Architecture Reference* (SC30-3374) information on the group SAP.
765C	Group SAP has reached maximum membership	This completion code is returned if an Activate_SAP or Modify_SAP request is received, requesting membership in a group SAP that has reached its maximum membership. The command completes up to the point at which the error was encountered. Other parameters have been changed if the request was Modify_SAP. See the *IBM Token–Ring Network Architecture Reference* (SC30-3374) for information on the group SAP.
765E	Member SAP not found in group SAP list	This completion code is returned if a Modify_SAP request is received, requesting deletion of the member SAP from a group SAP of which it was not a member. The command completes up to the point at which the adapter encountered the error. Other parameters have been modified as requested. See the *IBM Token–Ring Network Architecture Reference* for information on the group SAP.

Code	Meaning	Explanation
FF02	Duplicate command	This completion code is returned if a connect request is received for a link station, while a previous connect request is still in process.
FF0C	Command cancelled, invalid version number	This completion code is returned if the primitive contained an invalid version number.
FF28	Duplicate LLC request	This completion code is returned on a DL_DATA or DL_REPLY when a duplicate request with the same source SAP, destination MAC, and priority is received by the LLC service provider.
FF48	Group SAP cannot close, all member SAPs not closed	This completion code is returned if a Deactivate_SAP request is received for a group SAP while members of that group SAP are still open. Close the members and retry the Deactivate_SAP request.
FF4C	Sequence error	This completion code is returned if a Deactivate_SAP or close request is received while other SAP or link commands are still in process. Wait for the commands to complete and re-issue the close request.
FF4F	Invalid remote address	This completion code is returned if an OPEN_STATION request is received with the remote MAC address parameter high bit of the high byte set to 1. This indicates a group address. A group address is not allowed to be specified for this command. **VTAM Hint:** If you are running VTAM Version 4, a possible cause of code FF4F is that DLCADDR is specified in the definition for a 3172. The 3172 does not currently support DLCADDR. DLCADDR is a parameter on the PATH definition statement for a switched major node in VTAM Version 4.
FF50	Invalid attribute value; no values set	This completion code is returned indicating that none of the requested attribute modifications were made.
FF51	Invalid attribute(s) values; one or more values set	This completion code is returned indicating partial completion of the requested attribute modifications.
FF52	One or more requested attributes not available	This completion code is returned indicating some of the requested attribute values were not available.
FF53	Invalid DL_Flow option	This completion code is returned if the user specifies flow off when it is already off or flow on when it is already on.
FF76	A frame reject (FRMR) was sent to the DSPU	The FRMR sent is the result of one of the following: • MAC frame invalid control field • I-field contains data that is not valid for that control field included in a SABME • The received I-field length exceeds the buffer • LPDU control field sequence number error • The FRMR response I-field is not 5 bytes in length.

Chapter 3. Data Link Control (DLC) Status Codes

About This Chapter

DLC status codes provide information about errors encountered during the use of high performance data transfer (HPDT) services. They are displayed in message IST1556I and in the IUTx VIT entry.

DLC status codes are four bytes long. The bytes contain the following information:

Byte	Contents
0	Category
1	Reporting layer identifier and location
2 and 3	Completion code.

This chapter shows the possible values that can appear in each byte and their meanings.

Byte 0 — Category

Hexadecimal Value	Meaning
X'00'	Request successful **Explanation:** The specific primitive has been processed with no error. The receiver of this primitive has successfully forwarded or replied to this primitive successfully. **Note:** The completion code could have informational errors.
X'08'	Request rejected **Explanation:** All aspects of the primitive were well understood but a transitory system or network error occurred which prevented the execution of this request. An example of this could be storage shortage. **Note:** This category is one that an upper layer protocol (ULP) might choose to retry the failed primitive.
X'10'	Request error **Explanation:** This primitive was rejected due to inaccurate information in the primitive (for example, incorrect token, incorrect information element).
X'20'	State error **Explanation:** A primitive was received “out of order.”
X'40'	Usage error **Explanation:** Primitive rejected due to incorrect use of either the primitive itself or a parameter associated with the primitive.
X'80'	Permanent error **Explanation:** Request rejected due to failure of either a system or network function.

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Byte 1 — Reporting Layer Identifier and Location

Hexadecimal Value	Meaning
X'10'	LLC layer local error **Explanation:** A primitive was processed and an error was found by the local VTAM.
X'20'	LLC layer path error **Explanation:** A primitive was processed and an error was found by the local VTAM while trying to send a primitive out on an MPC group.
X'30'	LLC layer remote error **Explanation:** A primitive was processed and an error was found by the remote VTAM. This value should be used when a remote VTAM is sending common status back to an adjacent host.
X'12'	Port Control Manager (PCM) local error **Explanation:** A primitive was processed and an error was found by the IBM S/390 Open System Adapter's PCM.
X'22'	Port Control Manager path-related error **Explanation:** A primitive was processed and an error was found by the IBM S/390 Open System Adapter's PCM while trying to send a primitive out on an MPC group or sending a primitive to the ATM network.
X'32'	Port Control Manager remote error **Explanation:** A primitive was processed and an error was found by the remote node; for example, the local ATM switch experienced a failure.
X'1C'	Service-specific component local error **Explanation:** A primitive was processed and an error was found by a service-specific component part of the ATM adaptation layer (AAL) sublayer.
X'2C'	Service-specific component path-related error **Explanation:** A primitive was processed and an error was found by a service-specific component part of the AAL sublayer, while trying to send a primitive to the ATM network.
X'3C'	Service-specific component remote error **Explanation:** A primitive was processed and an error was found by the remote node; for example, the local ATM switch experienced a failure.
X'1A'	Common-part component local error **Explanation:** A primitive was processed and an error was found by a common-part component that includes the ATM layer function and non-service-specific sublayers of the AAL layer.
X'2A'	Common-part component path-related error **Explanation:** A primitive was processed and an error was found by a common-part component that includes the ATM layer function and non-service-specific sublayers of the AAL layer while trying to send a primitive to the ATM network.

Hexadecimal Value	Meaning
X'3A'	Common-part component remote error **Explanation:** A primitive was processed and an error was found by a remote partner in its common-part component that includes the ATM layer function and non-service-specific sublayers of the AAL layer.

Bytes 2 and 3 — Completion Code

Hexadecimal Code	Meaning
X'00nn'	n/a **Explanation:** Codes starting with X'00' are specific to the VTAM product implementation.
X'0000'	Successful **Explanation:** The primitive completed successfully.
X'0001'	Initialization failure **Explanation:** A failure occurred during the initialization of support code. Notify VTAM operator to determine cause of failure.
X'0018'	VTAM is no longer available **Explanation:** Request returned as a result of VTAM termination. Termination might have been normal due to an operator initiated action or due to some abnormal condition.
X'0021'	Connection constructor error **Explanation:** Failure occurred during the construction of the connection object. Notify the VTAM operator of the failure to determine cause and possible corrective actions.
X'0022'	State error **Explanation:** Failure occurred during the execution of the request due to a state error indicating a protocol violation. Notify the VTAM operator of the failure to determine cause of inconsistency and possible corrective actions.
X'0023'	TRLE activation/deactivation state error **Explanation:** User issued an activate or deactivation request and an internal state error was encountered.
X'0024'	Provider ID error **Explanation:** Provider ID supplied on the primitive is either incorrect or cannot be found. Condition indicates an interface inconsistency. Notify the VTAM operator of the failure to determine cause of inconsistency and possible corrective actions.
X'0025'	Selective Retransmit Not Supported **Explanation:** A request to set up a connection was received, and Selective Retransmit service was requested for that connection. Selective Retransmit is not supported at this time, so the request was rejected. Condition indicates that the remote partner expects Selective Retransmit, which may be a configuration mismatch. Notify the VTAM operator of the failure to determine cause of inconsistency and possible corrective actions.

Hexadecimal Code	Meaning
X'0027'	OpenPathReq error **Explanation:** Internal command OPENPATH_request, which causes the initial activation of the channel paths and either the XID or IDX exchange, failed. Failure might be due to a channel problem or an error condition discovered during the initial activation sequence. Notify the VTAM operator of the failure to determine cause and possible corrective actions. It might also be necessary to notify the operator of the platform containing the remote MPC instance.
X'0029'	DactPathReq error **Explanation:** Internal command DACTPATH_request, which causes the termination of an MPC group, has failed for some reason. MPC will complete system takedown of the group but user should notify the VTAM operator of the failure to determine cause and possible corrective actions. Failure to take corrective action might lead to the inability to reactivate the path.
X'002A'	ActPathRsp error **Explanation:** Internal command ACTPATH_response, which causes the allocation of devices and the construction of the MPC environment, failed. Notify the VTAM operator of the failure to determine cause and possible corrective actions.
X'002B'	OpenPathRsp error **Explanation:** Internal command OPENPATH_response, which causes the initial activation of the channel paths and either the XID or IDX exchange, failed. Failure might be due to a channel problem or an error condition discovered during the initial activation sequence. Notify the VTAM operator of the failure to determine cause and possible corrective actions. It might also be necessary to notify the operator of the platform containing the remote MPC instance.
X'002F'	High performance data transfer not supported **Explanation:** Remote partner does not support high performance data transfer data interface. Check I/O GEN and VTAM definitions for possible mismatch.
X'0030'	Storage error **Explanation:** Storage incorrect or not obtainable.
X'0040'	INOP-deact SAP **Explanation:** SAP has become inoperative.
X'0041'	INOP-connection **Explanation:** Data connection has become inoperative.
X'0042'	INOP-signaling connection **Explanation:** Signaling connection has become inoperative.
X'0043'	INOP-device **Explanation:** Local device has become inoperative.
X'0044'	INOP-soft **Explanation:** The connection or MPC group is inoperative; however, recovery of the connection is possible.

Hexadecimal Code	Meaning
X'0045'	INOP-hard **Explanation:** The connection or MPC group is inoperative, and is not expected to recover without intervention.
X'0046'	Incorrect token **Explanation:** User specified an incorrect token on a data connection.
X'0047'	Incorrect token **Explanation:** Internally specified token incorrect.
X'0048'	Duplicate data activation request **Explanation:** ULP has sent multiple data activation requests for a single connection.
X'0049'	Selector value error **Explanation:** A primitive was processed that specified a selector that did not match the selector of the provider token that was received.
X'004A'	Protocol value error **Explanation:** A primitive was processed that did not specify a known protocol value.
X'004B'	VCNAME value error **Explanation:** A primitive was processed that did not specify a known virtual circuit value.
X'0050'	Multiple TCP/IP instances trying to register filters for incoming calls **Explanation:** Multiple TCP/IPs have requested identical filter values.
X'0051'	Buffer size error **Explanation:** An activation SAP request was issued with an incorrect bufsize, or an incorrect combination of buffer size and buffer number for a TCP/IP read or write device.
X'0052'	Missing XBFL **Explanation:** An attempt was made to execute a data primitive and an XBFL (extended buffer list) was not provided. An XBFL is required for data primitives.
X'0053'	Empty XBFL **Explanation:** An XBFL was provided for a data primitive that has no entries within the list; for example, XBFLBEGN=0.
X'0054'	Incorrect XBFL entry **Explanation:** An XBFL was provided for a data primitive that has an incorrect entry within the list (for example, XBFLAREA=0).
X'0055'	Packet and XBFL length mismatch **Explanation:** An XBFL was provided for a data primitive where the total length of all entries does not match the packet length.

Hexadecimal Code	Meaning
X'0056'	XBFL free option not specified **Explanation:** An XBFL was provided for a data primitive where the XBFL free option (XBFL_FREE_OPT) was not specified. The free option is required for all data primitives.
X'0057'	Incorrect packet length **Explanation:** The packet length was 0 or too large; for example, exceeds the defined values for the device.
X'0058'	Incorrect parameter list version **Explanation:** The parameter list version is incorrect.
X'0060'	Connection not active **Explanation:** The data activation request for a specific connection was received before the connection was active.
X'0061'	Data not enabled with data activation request **Explanation:** Data activation request has not been received so data cannot be processed.
X'0062'	Class value error **Explanation:** A primitive was processed that does not specify a known class value.
X'0063'	Control value error **Explanation:** A primitive was processed that does not specify a known control value which is permitted for this primitive.
X'30nn'	n/a **Explanation:** Codes starting with X'30' are typically specific to the interface between VTAM and the IBM S/390 Open Systems Adapter's PCM. These errors result from either a software or definitional problem. Use the specific return code to identify incorrect parameter.
X'3001'	Incorrect control information field **Explanation:** The control information field of the primitive contains data that is blank, in an incorrect format, or can not be recognized.
X'3002'	Incorrect identifier **Explanation:** The value specified in the identifier/token parameter of the control information field is blank, in an incorrect format, or cannot be recognized.
X'3003'	Incorrect identifier type **Explanation:** The value specified in the identifier type parameter of the control information field is incorrect; for example, the ID type says it is a SAP but the identifier is a filter.
X'3004'	Incorrect primitive **Explanation:** The value specified in the primitive code parameter of the control information field is incorrect.
X'3005'	State error **Explanation:** An illogical or incorrect primitive was received for the current SAP or the call instance state of the Port Connection Manager.

Hexadecimal Code	Meaning
X'3007'	Incorrect information data **Explanation:** Either the primitive's data information field is missing data, or it contains blank, syntactically incorrect, or unrecognizable data.
X'3008'	Resource not available **Explanation:** The requested resource is not available.
X'300A'	Task ABEND **Explanation:** An error has occurred that prevents the processing of the primitive.
X'300E'	Incorrect service type **Explanation:** The ServiceType parameter in the primitive's Control Information field is either blank, syntactically incorrect, or unrecognizable. Service Type is REQ/CNF/IND/RSP.
X'3010'	Network down **Explanation:** The IBM S/390 Open Systems Adapter has lost communications to the ATM switch to which it is attached.
X'3011'	IBM S/390 Open Systems Adapter disabled **Explanation:** The IBM S/390 Open Systems Adapter has been disabled by user command.
X'3012'	PVC removed from IBM S/390 Open Systems Adapter **Explanation:** A PVC definition has been removed from IBM S/390 Open Systems Adapter while that PVC connection was active. The PVC connection is being inactivated.
X'3014'	Incorrect entry point **Explanation:** The entry point/interpret routine indicated contains a null character or incorrect value.
X'3016'	Incorrect Port Control Manager name **Explanation:** The value specified in the Port Control Manager name parameter is blank, in an incorrect format, or cannot be recognized. **Note:** The port name is specified in multiple places and **MUST** be the same in the IBM S/390 Open Systems Adapter/SF configuration file, on the PORTNAME operand on the TRLE definition statement in the TRL major node, and (in the case of APPN communication) on the PORTNAME operand on the PORT definition statement in the XCA major node. The port name must be the same in all places that it is specified. If it is not, correct the mismatches.
X'3017'	Incorrect user call instance identifier **Explanation:** The value specified in the user call instance identifier parameter of the control information field is missing, blank, in an incorrect format, or cannot be recognized.
X'3018'	Incorrect provider call instance identifier **Explanation:** The value specified in the provider call instance identifier parameter of the control information field is missing, blank, in an incorrect format, or cannot be recognized.

Hexadecimal Code	Meaning
X'3019'	Incorrect user SAP identifier **Explanation:** The value specified in the user SAP identifier parameter of the control information field is missing, blank, in an incorrect format, or cannot be recognized.
X'301A'	Incorrect provider SAP identifier **Explanation:** The value specified in the provider SAP identifier parameter of the control information field is missing, blank, in an incorrect format, or cannot be recognized.
X'301B'	Incorrect provider call enabling identifier **Explanation:** The value specified in the P_CE_ID parameter of the control information field is missing, blank, in an incorrect format, or cannot be recognized.
X'301C'	Incorrect user call enabling identifier **Explanation:** The value specified in the U_CE_ID parameter of the control information field is missing, blank, in an incorrect format, or cannot be recognized.
X'3022'	Incorrect control information field length **Explanation:** The value specified in the control information field length parameter contains an incorrect value. **Note:** Each primitive has a unique fixed control information field.
X'3023'	Incorrect data information field length **Explanation:** The value specified in the data information field length parameter contains a value that is incorrect or unrecognized.
X'3024'	Incorrect action code **Explanation:** The value specified in the action code specified in the control information on the Call_Setup response field is missing, blank, in an incorrect format, or cannot be recognized.
X'3025'	Missing data information field **Explanation:** The data information field must be complete for the primitive to work.
X'3026'	Incorrect logical link value **Explanation:** The value specified in the logical link identifier parameter is outside the valid range of 0–31, decimal.
X'32nn'	n/a **Explanation:** Codes starting with X'32' are specific to ATM connection establishment. In particular, they relate to the inability of the IBM S/390 Open Systems Adapter to establish a reserved bandwidth connection because of lack of available resources.
X'3201'	Bytes per second exceeded **Explanation:** The IBM S/390 Open Systems Adapter received a request for a reserved bandwidth circuit. The number of bytes per second that were requested cannot be honored because the IBM S/390 Open Systems Adapter's capacity for bytes per second for reserved bandwidth connections would be exceeded.

Hexadecimal Code	Meaning
X'3202'	Receive packets per second exceeded **Explanation:** The IBM S/390 Open Systems Adapter received a request for a reserved bandwidth circuit. The number of packets per second that were requested in the receive direction (to the IBM S/390 Open Systems adapter) cannot be honored because the IBM S/390 Open Systems Adapter's capacity for receive packets per second for reserved bandwidth connections would be exceeded.
X'3203'	Transmit packets per second exceeded **Explanation:** The IBM S/390 Open Systems Adapter received a request for a reserved bandwidth circuit. The number of packets per second that were requested in the transmit direction (from the IBM S/390 Open Systems Adapter) cannot be honored because the IBM S/390 Open Systems Adapter's capacity for transmit packets per second for reserved bandwidth connections would be exceeded.
X'3204'	No packet buffers available **Explanation:** The IBM S/390 Open Systems Adapter received a request for a reserved bandwidth circuit. The number of bytes per second that were requested cannot be honored because the IBM S/390 Open Systems Adapter's capacity for packet buffers for reserved bandwidth connections would be exceeded.
X'3205'	Bandwidth unavailable **Explanation:** The IBM S/390 Open Systems Adapter received a request for a reserved bandwidth circuit. The number of ATM cells per second that were requested cannot be honored because the total number of cells per second would exceed the physical capacity of the ATM link.
X'33nn'	n/a **Explanation:** Codes starting with X'33' are specific to ATM signaling or data transfer. Generally they are the result of either a ULP software or definitional problem in constructing an ATM primitive. Use the specific return code to identify incorrect parameter, termed an information element (IE), to perform diagnostics.
X'330B'	Call does not exist **Explanation:** The Port Control Manager received a primitive associated with a call that no longer or never existed.
X'330D'	Endpoint does not exist **Explanation:** The value of the endpoint reference identifier in the endpoint reference subfield is not currently assigned to a call endpoint.
X'3312'	Service access point not activated **Explanation:** The primitive is incorrect because the SAP is not activated or recognized.
X'3315'	User subfields too large **Explanation:** The subfields specified in the primitive exceed the number of allowable octets.
X'331B'	Subfields not allowed **Explanation:** The subfields contained in the specified primitive are not allowed.

Hexadecimal Code	Meaning
X'331D'	Mandatory subfield missing **Explanation:** A required subfield not present.
X'3323'	Selected channel busy **Explanation:** The specified permanent virtual channel (PVC) is busy or allocated to another call.
X'3324'	Maximum calls exceeded **Explanation:** The call setup request was not executed because the required resource could not be allocated.
X'3329'	Maximum requests exceed **Explanation:** The limit on outstanding primitives was reached.
X'332A'	Call clear indication pending **Explanation:** A call clear indicate has been issued to the user. The user should respond. The call instance is cleared when the call clear response is received from the user.
X'332D'	Timeout on call **Explanation:** The call could not be processed within the time constraints of the network.
X'332F'	Lack of resources **Explanation:** The resources requested from the system (for example, memory errors) could not be obtained.
X'3330'	Operating system error **Explanation:** An operating system error was encountered.
X'3331'	Incorrect bearer capability **Explanation:** The length or the parameter information in the bearer capability subfield is incorrect.
X'3332'	Incorrect channel identification **Explanation:** The length or the parameter information in the channel identification subfield is incorrect.
X'3333'	Incorrect calling party number **Explanation:** The length or the parameter information in the calling party number subfield is incorrect.
X'3334'	Incorrect called party number **Explanation:** The length or the parameter information in the called party number subfield is incorrect.
X'3335'	Incorrect calling party subaddress **Explanation:** The length or the parameter information in the calling party aubaddress subfield is incorrect.
X'3336'	Incorrect called party subaddress **Explanation:** The length or the parameter information in the called party subaddress subfield is incorrect.
X'3337'	Incorrect low-layer compatibility **Explanation:** The length or the parameter information in the low-layer compatibility subfield is incorrect.

Hexadecimal Code	Meaning
X'3338'	Incorrect high-layer compatibility **Explanation:** The length or the parameter information in the high-layer compatibility subfield is incorrect.
X'3339'	Incorrect transit network selection **Explanation:** The length or the parameter information in the transit network selection subfield is incorrect.
X'333A'	Incorrect cause **Explanation:** The length or the parameter information in the cause subfield is incorrect.
X'333B'	Incorrect call status **Explanation:** The length or the parameter information in the call status subfield is incorrect.
X'333C'	No cause code specified **Explanation:** The incoming call clearing message from the network did not contain a cause code indicating why the call was being cleared.
X'3340'	Incorrect AAL parameters **Explanation:** The length or parameter values in the AAL parameters subfield is incorrect.
X'3341'	Duplicate AAL parameters **Explanation:** The AAL parameters subfield is specified more than once.
X'3342'	Incorrect endpoint identifier **Explanation:** The length or parameter value in the endpoint reference subfield is incorrect.
X'3343'	Duplicate endpoint reference **Explanation:** The endpoint reference is specified more than once.
X'3344'	Incorrect endpoint state **Explanation:** The length or parameter value in the endpoint status subfield is incorrect.
X'3346'	Incorrect QoS **Explanation:** The length or parameter values in the quality of service subfield is incorrect.
X'3347'	Duplicate QoS **Explanation:** The quality of service subfield is specified more than once.
X'3348'	Incorrect PCI **Explanation:** The length or the parameter value in the permanent connection identifier subfield is incorrect.
X'3349'	Duplicate PCI **Explanation:** The permanent connection identifier subfield is specified more than once.

Hexadecimal Code	Meaning
X'334A'	Incorrect traffic descriptor **Explanation:** The length or the parameter value in the traffic descriptor subfield is incorrect.
X'334B'	Duplicate traffic descriptor **Explanation:** The traffic descriptor subfield is specified more than once.
X'3351'	Duplicate bearer capability **Explanation:** The bearer capability subfield was specified more than one time.
X'3352'	Duplicate channel identification **Explanation:** The channel identification subfield was specified more than one time.
X'3353'	Duplicate calling party number **Explanation:** The calling party number subfield was specified more than one time.
X'3354'	Duplicate called party number **Explanation:** The called party number subfield was specified more than one time.
X'3355'	Duplicate calling party subaddress **Explanation:** The calling party subaddress subfield was specified more than one time.
X'3356'	Duplicate called party subaddress **Explanation:** The called party subaddress subfield was specified more than one time.
X'3357'	Too many instances of low-layer information **Explanation:** More instances of low-layer information subfield are present than are allowed.
X'3358'	Duplicate high-layer compatibility **Explanation:** The high-layer compatibility subfield was specified more than one time.
X'3359'	Duplicate Transit network selection **Explanation:** The transit network selection subfield was specified more than one time.
X'335A'	Duplicate cause **Explanation:** The cause subfield was specified more than one time.
X'335B'	Duplicate call status **Explanation:** The call status subfield was specified more than one time.
X'335D'	Duplicate PCI **Explanation:** The permanent connection identifier subfield was specified more than one time.

Hexadecimal Code	Meaning
X'3360'	Subfield of length zero present **Explanation:** One of the subfields in the data information field has a length of zero.
X'3361'	Incorrect calling party number length **Explanation:** In the calling party number subfield, the value specified in the SFNumberLength parameter disagrees with the length of the subfield contained in the SFLength parameter.
X'3362'	Incorrect called party number length **Explanation:** In the called party number subfield, the value specified in the SFNumberLength parameter disagrees with the length of the subfield contained in the SFLength parameter.
X'3363'	Incorrect calling party subaddress length **Explanation:** In the calling party subaddress subfield, the value specified in the SFSubaddrLength parameter disagrees with the length of the subfield contained in the SFLength parameter.
X'3364'	Incorrect called party subaddress length **Explanation:** In the called party subaddress subfield, the value specified in the SFSubaddrLength parameter disagrees with the length of the subfield contained in the SFLength parameter.
X'3366'	Incorrect call status value **Explanation:** In the call status subfield, the SFCallStatus parameter specifies a value that is incorrect.
X'3367'	Call status subfield missing **Explanation:** The call status subfield information is missing. This is required information for this primitive.
X'336A'	Subfields of the same type are not the same **Explanation:** Two or more subfields of the same type are specified in the data information field; however they are not contiguous.
X'336B'	Entry not unique **Explanation:** The filter registration request is rejected because the call routing information and subfield specifications indicated in the data information field do not make the entry unique. An entry exists in the Port Control Manager incoming call routing table that has the same “must match” information as this request.
X'336C'	First subfield is not primitive specific **Explanation:** The first subfield you specified in the data information field is not the primitive-specific subfield.
X'3371'	Path Control Manager internal error **Explanation:** The Path Control Manager associated with the call detected an internal error.
X'3374'	Permanent connection not defined **Explanation:** The permanent connection that was requested in the call setup request is not defined.

Hexadecimal Code	Meaning
X'3375'	Incorrect ID type in current state **Explanation:** In the current state of the call instance, the identifier type is incorrect.
X'3376'	Call setup confirm for unsuccessful call queued **Explanation:** The Path Control Manager will not process this call clear request because the call that the user requested to be cleared has failed.
X'337A'	Prior call control request outstanding **Explanation:** A call control request previously issued by the user has not been confirmed by the Path Control Manager. The user should try the request again after the confirmation is received from the Path Control Manager.
X'3380'	User software error **Explanation:** The user discovered an unexpected software error.
X'3393'	Incorrect usage indicator in primitive-specific subfield **Explanation:** The usage indicator provided in the primitive specific subfield on the filter registration request primitive is incorrect. Either the first primitive-specific subfield specified must meet the “must not match” criteria, or the second primitive-specific subfield specified must meet the “must match” criteria.
X'3394'	Data transmission flow control state is blocked **Explanation:** A halt data flow request has been sent so data is not flowing.
X'3395'	Connection state incorrect for data transfer **Explanation:** Data cannot be accepted until the data SAP has been processed.
X'3396'	Data transmit flow control blocked for pacing. **Explanation:** The connection over which this data flows is an ATM reserved bandwidth connection. More data has been requested to be sent than has been reserved. The data flow will be blocked for an interval of time to ensure data is not dropped by the ATM network. Data flow will be reopened when the interval of time passes.
X'3397'	Data transmit flow control blocked for remote **Explanation:** The connection over which this data flows is an ATM connection. The IBM S/390 Open Systems Adapter has reached a level of congestion and has requested that no more data be sent on this connection until the congestion is relieved. Data flow will be reopened by IBM S/390 Open Systems Adapter when the congestion condition has passed.
X'40nn'	n/a **Explanation:** Codes starting with X'40' are specific to the VTAM/IBM S/390 Open Systems Adapter IDX channel interface.

Hexadecimal Code	Meaning
X'4001'	VTAM/IBM S/390 Open Systems Adapter function level mismatch **Explanation:** The IBM S/390 Open Systems Adapter returned this code indicating request failed due to function mismatch between VTAM and the IBM S/390 Open Systems Adapter; for example, incompatible versions of the two products. Contact system operator to determine cause of the incompatibility.
X'4002'	Incorrect or no header size specified **Explanation:** The IBM S/390 Open Systems Adapter returned this code indicating request failed during IDX exchange due to MPC specifying an improper header size. Contact VTAM operator to determine cause of the incorrect size.
X'4003'	Incorrect or no block size specified **Explanation:** The IBM S/390 Open Systems Adapter returned this code indicating request failed during IDX exchange due to MPC specifying an improper I/O buffer size. Contact VTAM operator to determine cause of the incorrect size.
X'4004'	Channel path read write polarity mismatch **Explanation:** The IBM S/390 Open Systems Adapter returned this code indicating request failed during IDX exchange due to incorrect channel path polarity; for example, read defined as write or write defined as read. The paths were defined incorrectly in either the TRL entry for the device or during IBM S/390 Open Systems Adapter configuration. Contact VTAM operator to determine cause of the incorrect size.
X'4005'	VTAM name mismatch **Explanation:** The IBM S/390 Open Systems Adapter returned this code indicating request failed during IDX exchange because the same VTAM name was not received over both channel paths. This indicates a condition where two different VTAM instances are configured such that one is trying to use the Read path, the other the Write. Contact VTAM operator to determine correct definition of channel paths.
X'4010'	Channel path pair quiesced **Explanation:** The IBM S/390 Open Systems Adapter returned this code indicating that channel paths will be halted due to the failure of some internal IBM S/390 Open Systems Adapter process. Contact system operator to determine reason for the IBM S/390 Open System Adapter's action.
X'4011'	Incorrect data message size **Explanation:** The IBM S/390 Open Systems Adapter returned this code indicating an incorrect message size, normally too large. Channel operation is quiesced and the channel path to the IBM S/390 Open Systems Adapter becomes inoperative. Contact VTAM operator or system operator to determine correct maximum message size.
X'4080'	Normal termination **Explanation:** MPC uses this code to inform the IBM S/390 Open Systems Adapter that normal channel termination is required. It is not normally exposed to the ULP but might appear in the IBM S/390 Open Systems Adapter tracing facilities.

Hexadecimal Code	Meaning
X'4081'	VTAM/IBM S/390 Open Systems Adapter level mismatch **Explanation:** MPC returned this code indicating initialization request failed due to function mismatch between VTAM and the IBM S/390 Open Systems Adapter; for example, incompatible versions of the two products. Contact VTAM operator or system operator to determine cause of the incompatibility.
X'4082'	Channel path read/write polarity error **Explanation:** MPC returned this code indicating initialization request failed due to the IBM S/390 Open Systems Adapter specifying an incorrect read or write channel address; the read channel address must be an "even" address and the associated write channel address must be the read address + 1.
X'4083'	Incorrect or no header size specified **Explanation:** MPC returned this code indicating initialization request failed due to the IBM S/390 Open Systems Adapter specifying an incorrect header segment size. Contact VTAM operator or system operator to determine cause of the incorrect size.
X'4084'	Incorrect or no buffer size **Explanation:** MPC returned this code indicating initialization request failed due to the IBM S/390 Open Systems Adapter specifying an incorrect I/O buffer size. Contact VTAM operator or system operator to determine cause of the I/O buffer size.
X'4085'	Data path failure **Explanation:** MPC returned this code indicating the channel paths to the IBM S/390 Open Systems Adapter are now inoperative due to a failure of the data path. Note, this is not a channel failure; it is the failure of a software component that processes data. Failure is normally due to an incorrect data primitive or the occurrence of a VTAM-detected processing error. Contact VTAM operator to perform problem diagnosis.
X'4086'	System failure **Explanation:** MPC returned this code indicating the failure of a process has caused an ABEND within MPC processing components. Failure might be due to an MPC software problem or an underlying system failure. Contact VTAM operator to perform problem diagnosis.
X'4087'	Channel path failure **Explanation:** MPC returned this code indicating the failure of the channel path between itself and the IBM S/390 Open Systems Adapter. Failure has been recorded as a long OBR record in the system log. Contact VTAM operator or the system operator to determine cause of failure.
X'4088'	Token failure **Explanation:** MPC uses this code to indicate that the IBM S/390 Open Systems Adapter has returned inconsistent token values over the two channel paths. The tokens returned must contain identical bit strings. Contact the system operator to determine cause of inconsistency.

Hexadecimal Code	Meaning
X'4089'	State mismatch **Explanation:** MPC uses this code to indicate that an inconsistency in processing states exists between MPC and the IBM S/390 Open Systems Adapter. Contact the VTAM operator to determine cause of inconsistency.
X'408A'	Event Notification Facility offline signal **Explanation:** MPC uses this code to indicate that an Event Notification Signal (ENF) has been received indicating the channel paths have been varied offline. Contact the system operator to determine reason the paths were put offline.
X'408B'	No storage for I/O buffer **Explanation:** MPC uses this code to indicate that storage was not available for it to build the required channel I/O buffers for the data and header segments. System storage might be constrained due to competing requests for storage. Contact the VTAM operator to determine VTAM's current storage usage and the system operator to determine cause of storage scarcity.
X'408C'	Incorrect IBM S/390 Open Systems Adapter name **Explanation:** The name used to activate the IBM S/390 Open Systems Adapter does not match the defined value. Check your definitions.
X'408D'	Channel control failure **Explanation:** MPC uses this code to indicate a failure in its channel control (CC) component. The failure might have been caused by a software failure in the CC component or an underlying system failure. Contact the VTAM operator to determine failure cause. If a system failure, notify the system operator.
X'408E'	Signaling plane failure **Explanation:** MPC uses this code to indicate a failure in the signaling plane. Contact the VTAM operator to determine failure cause. If a system failure, notify the system operator.

Chapter 4. Status Codes

About This Chapter

This chapter includes the following resource and session status information:

- "Resource Status Codes and Modifiers" on page 4-2
  - "Resource State Code Categories" on page 4-2
  - "Resource State Code Values" on page 4-3
  - "Resource Status Modifiers (Positions 4 and 5)" on page 4-16
  - "Resource Status Field Information (Positions 6–10)" on page 4-16.
- "Session States and Modifiers" on page 4-17
  - "Session State Modifiers and Suffixes" on page 4-17
  - "Session Initiation States" on page 4-17
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  - "Session Status Modifiers (Positions 6–8)" on page 4-25.

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Resource Status Codes and Modifiers

VTAM provides detailed information on the status of a resource. This status is defined by a state code that contains up to 10 characters.

Note: The resource state code abbreviation might be truncated if optional status information is displayed in positions 4–10. For example, **ACTIV** is displayed if an LU is in an active state. If a session is queued, pending active, or active for this LU, the resource status modifier **/S** appears in positions 4 and 5, and **ACTIV** is truncated (**ACT/S**).

See “Resource Status Modifiers (Positions 4 and 5)” on page 4-16 and “Resource Status Field Information (Positions 6–10)” on page 4-16 for additional information.

The status code abbreviation appears in some VTAM messages in response to a DISPLAY ID command. See *VTAM Operation* for more information about the DISPLAY ID command and the messages issued by VTAM in response to this command.

Resource State Code Categories

The classification of states into the following major categories may aid in deciding if a problem exists. If problem determination is needed, refer to *VTAM Diagnosis*.

Category	Meaning
Final	VTAM has no further processing to do for the node.
Short Transient (Short)	The node is awaiting completion of an operation (such as I/O) that will take a relatively short time. If the node remains in this state for a long period of time, there is probably a hardware or software error.
Long Transient (Long)	The node is awaiting completion of an operation that will take a relatively long time. If the node remains in this state for an unreasonable length of time, there is probably a hardware or software error.
Suspended (Susp)	This node is awaiting processing of another node. When the awaited processing is completed, the status of this node should change. If the awaited processing is completed and this node remains in this state, there is probably a software problem.
Internal (Int)	This state is used within VTAM to direct processing. It should never be displayed. If it is, there is probably a software problem.

Resource State Code Values

The first byte represents the resource-status categories:

Value (hex)	Current State Category	Desired State Category
00	Inactive	Inactive
01	Pending inactive	Not used
02	Connectable	Connectable
03	Reactivate	Reactivate
04	Pending active	Not used
05	Active	Active
06	Routable	Routable

The second byte of RPRCURST and RPRDESST gives the specific resource status. The following table shows the 2 bytes in combination (for example, value hexadecimal 0001 indicates a category of 00 and a specific code of 01).

Notes on the following table:

1. The state abbreviations are listed in alphabetical sequence.
2. An asterisk (*) is used to denote state values that may appear in a 1-byte field containing a load status. These values describe the progress of a load requested by the physical unit on an ACTPU response.
3. A double asterisk (**) is used to denote state values that may appear in a 1-byte field containing the line trace, GPT trace, or SIT trace status.

Resource State	Value (hex)	Category	Resource Status
ACTIV	0505	Final	The resource is in the active state.
APEER	0501	Final	Attach PU type 4 or 5 (peer): The node is the backup link station to which a PU type 4 or 5 in another domain is attached.
CONCT	0200	Final	Connectable: A VARY ACT command has completed for a switched physical or logical unit, or for an application program. 1. For switched resources, a dial-in or dial-out request will be honored, but the resource is not in use at this time. 2. For application programs, an OPEN ACB has not yet been issued.
CTDER	041D	Susp	Contacted error: A node, such as a link station or physical unit, was being activated and the Contacted request was received indicating the Contacted error state. For a physical unit, a request to deactivate the resource has been scheduled. For a link station, if the NCP it is trying to contact is being activated, the link station activation will be suspended until the activation is completed; then the link station will be contacted again. A second CTDER causes deactivation of the link station.
CTD1	043D	Susp	Contacted(1): A link station was being activated, and received a Contacted request from the appropriate PU services. Because the communication controller contacted is being activated, the activation of the link station is suspended until the communication controller has been activated. Activation processing for the link station is redriven after the communication controller has been activated.

	Resource State	Value (hex)	Category	Resource Status
	CTRQI	043A	Susp	Contacted(2) request IPL: A node, such as a link station or a physical unit, is being activated, and the Contacted request indicates that reload is required. For a physical unit, a request to deactivate the resource has been scheduled. For a link station, if the NCP it is trying to contact is being activated, the link station activation will be suspended until the communication controller has been activated. The link station will then be contacted again. A second CTRQI deactivates the link station.
	CT1NS	040F	Susp	Contact(1) not sent: A link station reached the point in its activation where a Contact request should be sent, but the NCP to be contacted was not in a suitable state. The link station's activation is suspended and will be redriven when the NCP's activation reaches the point where it can be contacted (when its state is PAPU2).
	DALUC	011E	Susp	DACTLU complete: A DACTLU request was sent and the response was received, but some higher-level node recovery processing has started. This node will remain in this state until the higher-level process redrives it.
	DAPUC	011F	Int	DACTPU complete: A DACTPU request was sent as the result of a force deactivate or force reactivate command, and either the response was received or, in the case of a communication controller, a route failed and a DACTPU request was received.
	DEFND	0001	Short	Defined: A VARY ACT command is being processed for a major node. The major node and its subnodes are known to VTAM. The activation has been suspended while the processing of the command moves from one internal VTAM PAB to another.
*	DLLDD	05	Final	Loaded: The physical unit requested a load and that load has been successfully completed.
*	DLPAB	04	Short	Pending load abort: The physical unit's requested load cannot be completed; a request to cancel the load has been sent to the physical unit.
*	DLPLD	03	Long	Pending load: The physical unit is currently being loaded.
*	DLPRP	02	Short	Pending ACTPU response: An ACTPU request unit was sent to the physical unit, and VTAM is waiting for the ACTPU response by which the physical unit will indicate whether or not it needs to be loaded.
*	DLRST	01	Final	Reset: The physical unit is not being loaded.
	DUMPC	011B	Susp	Dump complete: A link station was used to dump an NCP and the dump is complete, but the recovery or deactivation of the NCP has not reached the point where link stations connected to that NCP are processed. For recovery, that point is reached when the NCP's load or dump procedure status is RESET. For a deactivation, that point is reached when the NCP's status is PRSET.
	FDSCC	0445	Int	Force Discontact completed: A Discontact has been sent as a result of a force deactivate or force reactivate command, and the response to the Discontact has been received.

Resource State	Value (hex)	Category	Resource Status
HLACF	0409	Int	Higher-level activate failed: A node was being activated, and activation of its higher-level node failed. For example, a channel-attached physical unit or logical unit was being activated, and PUB allocation failed for its associated channel. A deactivate request was scheduled for the channel-attached physical unit or logical unit.
HLACT	042D	Int	Higher-level activate complete: A node is being activated and its higher-level node has completed activation. For example, a channel-attached physical unit or logical unit is being activated, and the activation of the associated channel has been completed. The activation of the resource is about to begin.
IINOP	0005	Final	Inactive (Inoperative): The resource has been deactivated by an INOP request or a forced deactivate request.
INACS	0006	Final	Inactive with sessions: If the resource is a logical unit, the node is in the inactive state but may have active sessions. There is no LU-SSCP session, but the logical unit may have active LU-LU sessions. This state can occur when a cross-domain resource is made a same-domain resource as part of the takeover of the resources of an SSCP that failed. If the resource is a CDRM, the node is in an inactive state, but it supports active cross-domain LU-LU sessions. In this state, there is no SSCP-SSCP session, but the CDRM may be supporting active cross-domain LU-LU sessions. This state can occur when (1) the virtual route used by the SSCP-SSCP session is inoperative or has been deactivated by a DACTVR (FORCE), (2) activate CDRM contention has occurred, or (3) an unrecoverable error has been detected for the SSCP-SSCP session. The cross-domain active session, which used the SSCP-SSCP session to set up, will remain intact.
INACT	0003	Final	Inactive: The resource has been deactivated.
INACX	0007	Final	Inactive with address transforms: An external CDRM could not be activated. A gateway NCP along the path to the CDRM did not have enough information to support a cross-network session with the CDRM.
INOP	0441	Susp	Inoperative: An INOP request, route failure, or force reactivate command is being processed. Active user sessions have been terminated. The resource is about to be reactivated, but must wait for a higher-level node to activate it.
INVAP	0417	Int	Invalid Activate PU response: A node, such as a communication controller or physical unit, is being activated. The ACTPU request was sent, but the response is invalid. Two examples of invalid responses are (1) the response unit has invalid format or indicates the physical unit is not in COLD or ERP state and (2) the resource has been loaded and the contents ID is not the expected value. A request to deactivate the resource was scheduled.

Resource State	Value (hex)	Category	Resource Status
LLQED	043B	Susp	Lower-level queued: A VARY ACT command is being processed for a communication controller, and the RDT segment has just been built. The network names of both the major node and its subnodes are known to VTAM. At least one of the subnode link stations has been queued on another link station queue, because it is an operand of the RNAME=*keyword* on the second communication controller's VARY ACT command. The activation of the communication controller has been suspended while the processing of the command moves from one internal VTAM PAB to another.
NACDR	042F	Int	Negative Activate CDRM response: A CDRM is being activated and the Activate CDRM request was sent, but the response was negative (the request failed). A request to deactivate the CDRM has been scheduled.
NACTL	0410	Int	Negative Activate LU response: A node, such as an application program or other logical unit was being activated, and the Activate LU request was sent, but the response was negative (the request failed). A request to deactivate the resource was scheduled.
NACTP	0412	Int	Negative Activate PU response: A node, such as a communication controller or physical unit, was being activated and the Activate PU request was sent, but the response was negative, and the request failed. A request to deactivate the resource was scheduled.
NADLK	0423	Int	Negative Add Link response: A channel link was being activated and an Add Link request was sent to the appropriate PU services. However, the response was negative and the request failed. A request to deactivate the resource was scheduled.
NADST	0420	Int	Negative Add Link Station response: A channel link station was being activated and an Add Link Station request was sent to the appropriate PU services. However, the response was negative and the request failed. A request to deactivate the resource was scheduled.
NALNK	0415	Int	Negative Activate Link response: A line was being activated, and the Activate Link request was sent, but the response was negative (the request failed). A request to deactivate the line has been scheduled.
NANNA	0431	Int	Negative allocate node network address: A node, such as a dynamically added physical unit or logical unit, was being activated, and the Request Network Address Assignment request was sent to the appropriate PU services, but the response was negative and the request failed. A request to deactivate the resource was scheduled.
NASNA	0426	Int	Negative allocate subnode network addresses: A node, such as a channel-attached or switched physical unit, is being connected and the Request Network Address Assignment request has been sent to the appropriate PU services. However, the response was negative and the request failed. A request to disconnect the resource was scheduled.

Resource State	Value (hex)	Category	Resource Status
NCONO	0400	Int	Negative Connect Out response: A node, such as a channel-attached or switched physical unit, was being connected and the Connect Out request was sent to the appropriate physical unit services, but the response was negative and the request failed. A request to disconnect the resource was scheduled.
NCONT	041C	Int	Negative Contact response: A node, such as a link station or physical unit, was being activated and the Contact request was sent, but the response was negative (the request failed). A request to deactivate the resource has been scheduled.
NEVAC	0004	Final	Never activated: The resource has never been activated.
NFRSV	0407	Int	Negative FRS Control Vector: All the frame relay physical units in a particular frame relay switching equipment set (FRSESET) were being activated, and the FRS Control Vector request was sent to the appropriate PU services. However, the response was negative, and the request failed. Requests to deactivate all the frame relay physical units in the FRSESET have been scheduled.
NLOAD	043C	Int	Negative load response: A communication controller was being activated and a Load request was sent to the appropriate physical unit services, but the response was negative and the request failed. A request to deactivate the communication controller was scheduled.
NNAUV	0403	Int	Negative Set NAU Control Vector: A node, such as a switched or dynamically added logical unit, was being connected and the Set NAU Control Vector request was sent to the appropriate physical unit services, but the response was negative and the request failed. A request to disconnect the resource was scheduled.
NSARV	041A	Int	Negative Set SAR Control Vector: A node, such as a link station, was being activated and the Set SAR Control Vector request was sent to the appropriate PU services, but the response was negative and the request failed. A request to deactivate the resource was scheduled.
NSDT	0428	Int	Negative SDT response: A communication controller was being activated and the Start Data Traffic request was sent, but the response was negative and the request failed. A request to deactivate the communication controller was scheduled.
NSNCP	042E	Int	Negative Switch to NCP response: A PEP link was being activated, and the Switch to NCP request was sent, but the response was negative and the request failed. A request to deactivate the PEP link was scheduled.
NSSSV	0405	Int	Negative Set SSS Control Vector: A node, such as a DR-added physical unit added by dynamic reconfiguration, or a switched physical unit, was being connected, and the Set SSS Control Vector request was sent to the appropriate PU services, but the response was negative, and the request failed. A request to disconnect the node was scheduled.
NSTD	042A	Int	Negative Set Time and Date response: A node, such as a communication controller, was being activated and the Set Time and Date request was sent, but the response was negative and the request failed. A request to deactivate the node was scheduled.

Resource State	Value (hex)	Category	Resource Status
NVYLM	0436	Int	Negative operator query (VFYLM) response: The resource was being activated and the response to the VTAM message IST361A was to terminate the NCP's activation. A request to deactivate the resource has been scheduled.
PABCN	010B	Short	Pending Abandon Connection response: A node, such as a channel-attached or switched physical unit, is about to become disconnected. The Abandon Connection request has been sent to the appropriate PU services, but the response has not been received.
PABCO	0116	Short	Pending Abandon Connection Out response: A node, such as a channel-attached or switched physical unit, is being disconnected and the Abandon Connect Out request has been sent to the appropriate physical unit services, but the response has not been received.
PACDR	0430	Long	Pending Activate CDRM response: A CDRM is being activated and the Activate CDRM request has been sent, but the response has not been received.
PACTL	0411	Short	Pending Activate LU response: A node, such as an application program or other logical unit, is being activated and the Activate LU request has been sent, but the response has not been received.
PADLK	0421	Short	Pending Add Link response: A channel link is being activated and an Add Link request was sent to the appropriate PU services, but the response has not been received.
PADST	0419	Short	Pending Add Link Station response: A channel-link station is being activated and an Add Link Station request was sent to the appropriate PU services, but the response has not been received.
PALNK	0416	Short	Pending Activate Link response: A line is being activated, and the Activate Link request has been sent, but the response has not been received.
PALUC	0434	Short	Pending Activate LU Cleanup response: An active logical unit is undergoing recovery processing. An ACTLU request has been sent, but the response has not been received.
PANNA	0432	Short	Pending allocate node network address: A node, such as a dynamically added physical unit or logical unit, is being activated and the Request Network Address Assignment request has been sent to the appropriate PU services, but the response was not received.
PAPU1	0413	Short or Long	Pending Activate PU(1) response: A communication controller is being activated, and may not need to be loaded. The ACTPU request was sent, but the response was not received. The sending of this request may have to wait for the availability of a virtual route. If one or more explicit routes are operative, this should be a short transient state while route activation proceeds. If no routes are operative, this may be a long transient state while VTAM waits for connectivity to be established along the route.

Resource State	Value (hex)	Category	Resource Status
PAPU2	0425	Short or Long	Pending Activate PU(2) response: A physical unit is being activated, did not need to be loaded or has been loaded, and the Activate PU request has been sent, but the response has not been received. For a communication controller, the sending of this request may have to wait for the availability of a virtual route. If one or more explicit routes are operative, this should effectively be a short transient state while route activation proceeds. If no routes are operative, this may be a long transient state while VTAM waits for connectivity to be established along the route.
PASNA	0427	Short	Pending allocate subnode network addresses: A node, such as a channel-attached or switched physical unit, is being connected. The Assign Network Address or Request Network Address Assignment request has been sent to the appropriate PU services, but the response was not received.
PBFSI	0448	Short	Pending BFSESSINFO: Takeover processing is in progress for an LU, and active sessions have not been completely reported to the SSCP.
PCDLA	0121	Short	Pending Cleanup DACTLINK active: A VARY INACT,TYPE=FORCE command was entered for an NCP-attached line whose status is active, pending active, or pending inactive. The lower level nodes are being deactivated, and a DACTLINK (cleanup) request was sent for the line, but the response has not yet been received.
PCDLI	0122	Short	Pending Cleanup DACTLINK inactive: A VARY INACT,TYPE=FORCE command was entered for an NCP-attached line whose status is not active, pending active, or pending inactive. A DACTLINK (cleanup) request was sent for the line, but the response has not yet been received.
PCONO	0401	Short	Pending Connect Out response: A node, such as a channel-attached or switched physical unit, is being connected and the Connect Out request has been sent to the appropriate PU services, but the response was not received.
PCON1	041E	Short	Pending Contact(1) response: A node, such as a link station, is being activated, and the first Contact request was sent to the appropriate PU services, but the response was not received.
PCON2	0422	Short	Pending Contact(2) response: A node, such as a physical unit or link station, is being activated and the Contact request (second attempt for link station) has been sent to the appropriate physical unit services, but the response has not been received.
PCTD1	041F	Long	Pending Contacted(1) request: A node, such as a link station, is being activated, and the first Contact response was received as a positive response, but the Contacted request was not received. A communication controller will also be found in this state during activation while waiting for a link station connected to it to be activated. For CTC, if both sides are hung in PCTD1, enter VARY INACT,TYPE=FORCE then VARY ACT on one side only to bypass the problem.

Resource State	Value (hex)	Category	Resource Status
PCTD2	0424	Long	Pending Contacted(2) request: A node, for example, a link station or a physical unit, is being activated. The final Contact request was sent by VTAM to the appropriate PU services and the response was received from the NCP, but the Contacted request has not been received from the remote device. A communication controller will also be found in this state (it is a suspended state in this case) during activation while waiting for a link station connected to it to be activated. The difference between PCTD2 and PCTD1 is that a communication controller in the PCTD1 state may be loaded if a link station receives a Contacted request indicating the NCP needs to be loaded, whereas in the PCTD2 state, both the link station and the NCP would be deactivated. **Notes:** 1. When the remote device is a 3274, the most likely cause is the NRZI definition parameter. The NCP defaults to NRZI. If the NRZI definition parameter in the 3274 differs from that specified in the NCP, PCTD2 will result. 2. If a token-ring device connected to a SNA 3174 channel-attached controller is not logically and physically attached to the token ring at activation time, the device will remain in PCTD2 status until the device is made available. 3. A status of PCTD2 can be caused by an illegal cross-network activation attempt. 4. A status of PCTD2 can be caused by a bad cable at the local or remote device. Run the complete set of cable wrap tests at each location.
PDACL	010F	Short	Pending DACTLU response: A node, such as an application program or a logical unit, is being disconnected or deactivated. The DACTLU request has been sent, but the response has not been received.
PDACP	0110	Short	Pending DACTPU response: A node, such as a communication controller or physical unit, is being disconnected or deactivated. The DACTPU request has been sent, but the response has not been received.
PDANC	0442	Short	Pending DACTPU ANSC: A DACTPU request was sent to the resource, but the response has not been received. The resource was being activated when the Automatic Network Shutdown Complete (ANSC) RU was received from the NCP. This request causes the SSCP to reset the SSCP-PU session and then resume the activation procedure.
PDANS	0104	Short	The Abandon Connect In request unit has been sent for a node such as a switched link.
PDELR	010E	Short	Pending Delete Network Resource response: A node, such as an application program, is being disconnected. The Delete Network Resource request has been sent to the appropriate PU services, but the response has not been received.

Resource State	Value (hex)	Category	Resource Status
PDGBK	0123	Short	Pending DACTLINK giveback: Records were lost when the VTAM subtask VTMTRACE was restarted. A VARY INACT,TYPE=GIVEBACK command was entered for an NCP attached line. A DACTLINK (giveback) request was sent for the line, but the response has not yet been received.
PDISC	010D	Short	Pending Discontact response: A node, such as a link station or physical unit, is being deactivated or disconnected. The Discontact request has been sent to the appropriate PU services, but the response has not been received.
PDLNK	0112	Short	Pending DACTLINK response: A line or channel-attached device is being deactivated, and the DACTLINK request has been sent to the appropriate PU services, but the response has not been received.
PDLUC	011D	Short	Pending Deactivate LU cleanup: An active logical unit is undergoing error-recovery processing and the DACTLU request has been sent, but the response has not been received.
PDMPC	0439	Long	Pending dump contention: VTAM is waiting for an indication from the communication controller to resume operation.
PDPA1	0443	Short	Pending DACTPU (ACT1): A DACTPU request was sent to the resource, but the response has not been received. The communication controller was being activated and was found already loaded. When the DACTPU response is received, this state is exited and processing continues from the beginning. Another attempt to load is allowed.
PDPA2	0444	Short	Pending DACTPU (ACT2): A DACTPU has been sent to the resource, but the response has not been received. If the resource is a physical unit type 4, it was being activated and a load was performed. Once the DACTPU response is received, the activation of the communication controller will proceed. If the resource is a BSC 3270 physical unit, a general poll failure occurred and the DACTPU was sent to clean up internal control blocks. When the response is received, an ACTPU will be sent.
PFDCP	0440	Short	Pending Force DACTPU response: A DACTPU has been sent as a result of a force-reactivate or force-deactivate command against a node, such as a communication controller. The response has not been received.
PFDLU	0120	Short	Pending Force DACTLU response: A DACTLU has been sent as a result of a force-deactivate command for the logical unit, but the response has not yet been received.
PFDMP	0119	Short	Pending Dump response: A dump is being performed on a communication controller over a link station, and it has not yet completed processing.
PFDSC	042C	Short	Pending Force Discontact response: A physical unit is being forced to deactivate or forced to reactivate and the Discontact request has been sent to the appropriate PU services, but the response has not been received.
PFNNA	011C	Short	Pending free node network address: A node, such as a switched or dynamically added physical unit or logical unit, is being deactivated. The Free Network Address request has been sent to the appropriate PU services, but the response has not been received.

Resource State	Value (hex)	Category	Resource Status
PFRSV	042F	Susp	Pending FRS Control Vector response: A frame relay physical unit is being activated and one of the following has occurred: • The other physical units in the frame relay switching equipment set (FRSESET) have not received positive RNAA responses. • The FRS Control Vector request has been sent to the appropriate PU services, but the response has not been received.
PFSNA	010C	Short	Pending free subnode network addresses: A node, such as a channel-attached or switched physical unit, is being disconnected. The Free Network Address request has been sent to the appropriate PU services, but the response has not been received.
PHLAC	040A	Susp	Pending higher-level activation: A node is awaiting activation of its higher-level node. For example, a channel-attached physical unit or logical unit is being activated, and the request to activate the associated channel (that is, the associated PUB) has not completed.
PHLIN	0102	Susp	Pending higher-level deactivation: A node is inactive and its higher-level node is being deactivated. For example, a channel-attached physical unit is inactive and the associated channel PUB is being deallocated.
PINAC	0100	Long	Pending inactive: CDRM is being deactivated.
PLOAD	040E	Long	Pending load: Either an NCP is being activated and a load operation has begun, or a peripheral physical unit, such as an 8775, is being activated, the physical unit has requested a load, and the SSCP sent the load request to an application program defined in the CNM routing tables. The physical unit has not received a response.
PLODC	043E	Long	Pending load contention: VTAM is waiting for an indication from the communication controller to resume operation.
PLSTC	043F	Long	Pending load station conditional: Activation processing for a communication controller is waiting for the link station over which the communication controller will be loaded to become available. When the link station is capable of being used for loading, if the link station is a channel link station, VTAM determines if the communication controller is loaded. If it is, a load is not done and activation proceeds. If it is not a channel link station, or if the communication controller is not loaded, a load is performed.
PLSTU	040D	Long	Pending load station unconditional: Activation processing for a communication controller will be loaded to become available. When the link station is capable of being used for loading, a load of the NCP will be done.
PMALD	0446	Long	Pending migration ACTPU load/dump procedure: An NCP session recovery loop has been suspended because of an ongoing load or dump operation.
PMATM	0447	Long	Pending migration ACTPU timer: An NCP is waiting for the expiration of a time interval before retrying session activation.
PNAUV	0404	Short	Pending Set NAU Control Vector response: A node, such as a switched or dynamically added logical unit, is being connected, and the Set NAU Control Vector request has been sent to the appropriate PU services, but the response has not been received.

Resource State	Value (hex)	Category	Resource Status
PNFY1	0113	Long	Pending Notify(1): A node, such as a logical unit, is being deactivated or disconnected. The request to terminate user sessions has been scheduled, but the Notify request indicating that the user sessions have ended has not yet been received. For example, the application program did not issue CLSDST.
PNFY2	0108	Long	Pending Notify(2): A node, such as a logical unit, is about to become connectable and the request to terminate any queued user sessions has been scheduled. However, the Notify request indicating that the user sessions have ended has not yet been received.
PNFY3	0105	Long	Pending Notify(3): A node is about to become inactive and the request to terminate queued user sessions has been scheduled. However, the Notify request indicating that the user sessions have ended has not yet been received.
POAS1	0437	Long	Pending operator query (AUTOSYN1) response: A communication controller is being activated, and message IST183A, which asks if the communication controller should be reloaded or re-synchronized, has been entered. The message was sent after the communication controller was contacted but before an SSCP-PU session was established. The reply was not received.
POAS2	0438	Long	Pending operator query (AUTOSYN2) response: A communication controller is being activated, and message IST183A, which asks if the communication controller should be reloaded or re-synchronized, has been issued. The message was sent after an SSCP-PU session was established with the communication controller. The reply was not received.
PREQC	0402	Long	Pending Request Contact request: A node, such as a channel-attached or switched physical unit, is being connected and the Connect Out response has been received, but the Request Contact request has not been received.
PRMPO	0103	Short	Pending RMPO response: A Remote Power Off request has been sent over a link station and the response has not been received.
PRSET	0101	Short	Pending reset: The resource is inactive, but the network name is still known to VTAM.
PSARV	041B	Short	Pending Set SAR Control Vector response: A node, such as a link station, is being activated and the Set SAR Control Vector request has been sent to the appropriate PU services, but the response has not been received.
PSDT	0429	Short	Pending Start Data Traffic response: A node, such as a communication controller, was being activated, and the Start Data Traffic request was sent, but the response was not received.
PSNCP	0414	Short	Pending Switch to NCP response: A PEP link is being activated, and the Switch to NCP request was sent, but the response has not been received.
PSSSV	0406	Short	Pending Set SSS Control Vector response: A switched physical unit is being connected, or a dynamically added physical unit is being activated, and the Set SSS Control Vector request has been sent to the appropriate PU services, but the response has not been received.

Resource State	Value (hex)	Category	Resource Status
PSTD	042B	Short	Pending Set Time and Date response: A communication controller was being activated, and the Set Time and Date request was sent, but the response was not received.
PSUBD	0502	Susp	Pending subnode definition: The resource is active but is waiting for dynamic subnodes to be defined. If a switched line is in this state it cannot be used for dial out.
PSUBR	0504	Susp	Pending subnode release: An acquired communication controller that was activated before it was acquired is being released; that is, a request to release the subnodes in the unowned portion of the communication controller is in progress.
PSUB1	0115	Susp	Pending subnode deactivate(1): A node supporting subnodes, for example, an application program, communication controller, link, or physical unit, is being deactivated or disconnected. Terminate requests for user sessions for application programs or LUs are being performed.
PSUB2	010A	Susp	Pending subnode deactivate(2): A node supporting subnodes, for example, an application program, communication controller, link, or physical unit, is about to become connectable. Terminate requests for queued user sessions for application programs or LUs are being performed.
PSUB3	0107	Susp	Pending subnode deactivate(3): A node supporting subnodes, for example, an application program, communication controller, link, or physical unit, is about to become inactive. Terminate requests for queued user sessions that apply to application programs or LUs are being performed.
PSWEP	0111	Short	Pending Switch to EP response: A PEP link has been deactivated. The Switch to EP Mode request has been sent to the appropriate PU services, but the response has not been received.
PTRM1	0114	Short	Pending Terminate(1) response: A node, such as a logical unit, is being deactivated or disconnected. The request to terminate user sessions has been scheduled, but the response has not yet been received.
PTRM2	0109	Short	Pending Terminate(2): A node, such as a logical unit, is about to become connectable, and the request to terminate queued user sessions has been scheduled. However, the response has not yet been received.
PTRM3	0106	Short	Pending Terminate(3) response: A logical unit is about to become inactive and the request to terminate queued user sessions has been scheduled, but the response has not yet been received.
PVYLM	0435	Long	Pending operator query (VFYLM) response: The resource is being activated and the VTAM operator message IST361A or IST937A has been issued, but the reply has not yet been received. Message IST361A asked the operator if he wanted to load the NCP or terminate the NCP's activation. Message IST937A asked the operator if he wanted to reload the NCP, inactivate the NCP, or ignore the correlator mismatch.
P095A	0118	Long	Pending operator query response: An ERP has issued message IST095A asking whether an ERP dump is desired. The reply has not been received.

	Resource State	Value (hex)	Category	Resource Status
	P284A	0408	Long	Pending operator query response: A communication controller is being recovered and message IST284A, asking whether the communication controller should be reloaded, has been issued. The reply has not been received.
	RACTH	0301		Reactivate at higher level: The resource is being deactivated and, once inactive, will wait for its reactivation to be driven by a higher-level node. (This is a desired state only.)
	RACTN	0300		Reactivate at this level: The resource is being deactivated and will then be reactivated at this level. (This is a desired state only.)
	RADDF	0433	Int	RDTADD failed: A node was being activated and the request to add the associated network address to the VTAM RDTADD data base has failed. A request to deactivate the resource has been scheduled.
	RDIAL	0201		Redial: A switched physical unit is being disconnected and an attempt to redial the physical unit will be made once disconnection is complete. (This is a desired state only.)
	RDRSP	0124	Long	Pending RTP_deallocation response.
	RELSD	0002	Final	Released: A physical unit has been released, or it exists in the unowned portion of an activated-before-acquired communication controller and has not yet been acquired.
	RESET	0000	Final	Reset: VTAM built a control block to represent the resource, but the resource has not been added to the symbol table. The resource is not usable by VTAM. You may have a duplicate resource name. For NCP resources, you may need to enter a VTAM VARY ACQ command to acquire the resource before using it.
	RINAC	0600	Long	Routable, Inactive: A MODIFY LL2 command is being processed for an inactive, dynamically added physical unit. In order to process the command, a network address had to be obtained for the physical unit. When the LL2 test is terminated, the physical unit will be returned to the inactive state.
	RRLSD	0601	Long	Routable, Released: A MODIFY LL2 command is being processed for a released, dynamically added physical unit. In order to process the command, a network address had to be obtained for the physical unit. When the LL2 test is terminated, the physical unit will be returned to the released state.
**	TRACT	03	Final	Active: The trace indicated is active.
**	TRPAR	02	Short	Pending ACT TRACE: The trace is being activated and the ACTTRACE request has been sent to the appropriate PU services, but the response has not been received.
**	TRPDR	01	Short	Pending DACTTRACE: The trace is being deactivated and the DACTTRACE request has been sent.
**	TRRES	00	Final	Reset: The trace indicated is not active.
	183AF	0418	Int	Operator query (AUTOSYNCH) failed: A request to issue message IST183A was scheduled, but the message could not be issued. Processing continues as if the reply were negative.
	284AF	0407	Int	Operator query failed: A request to issue message IST284A has been scheduled, but the message could not be issued. Processing continues as if the reply were negative.

Resource Status Modifiers (Positions 4 and 5)

The following status modifiers can appear in positions 4 and 5 of the state field. Only one modifier will be present at a time.

Modifier	Meaning
/I	Persistent session recovery is in progress. This status modifier is used only for application resources.
/R	Persistent session recovery is pending. This status modifier is used only for application resources.
/S	A session is queued, pending active, or active for this logical unit, terminal, or application. See “Session States and Modifiers” on page 4-17 for a description of these session initiation states.

Note: Because the abbreviation of the state code is truncated to 3 characters prior to adding the 2-character status modifier, the characters that make the state code unique (the fourth and fifth characters) might be lost. For example, if the /I modifier is appended to PNFY1, PNFY2, or PNFY3, the new state code is PNF/I. It is not possible to determine the original state code in this situation.

Resource Status Field Information (Positions 6–10)

The following resource status information can appear in character positions 6–10 in the resource status field in VTAM messages.

If a character position is not used, a hyphen (-) is displayed. For example, **ACTIV--S--** is displayed if the logical unit or cross-domain resource (CDRSC) is in an active state and defined as a shadow resource.

Resource Information	Character Position	Meaning
B	10	The link station is functioning as a backup for another link station (in certain migration situations).
D	10	The resource has been added or moved using dynamic reconfiguration.
E	10	The link station or cross-subarea link has been explicitly activated.
F	10	The link station was implicitly activated as a backup.
G	10	The resource is a logical line.
I	10	The link station or cross-subarea link has been implicitly (or automatically) activated, as a result of activating a resource to which this link or link station is subordinate or adjacent. See “VARY ACT Command” in *VTAM Operation* for an explanation of using the RNAME operand or the U operand to automatically activate link stations.
L	8	An independent LU is using this PU as an adjacent link station.
M	6	Takeover is in progress for the PU.
N	7	The resource was not originally owned by the host processing the DISPLAY command.

Resource Information	Character Position	Meaning
R	9	A test-resolve retry condition exists for a local area network active leased line. This condition indicates that VTAM LAN support is sending test LPDUs to a station to resolve a route and will continue to do so until either the station is active or the operator deactivates the line.
S	8	The logical unit or cross-domain resource (CDRSC) is defined as a shadow resource. See the *VTAM Network Implementation Guide* for more information.
T	10	The resource (link, physical unit, or logical unit) is attached through the programmed resource capability (NTO) of the NCP.
X	9	The resource was dynamically created.
Y	10	The cross-domain resource (CDRSC) was created dynamically.

Session States and Modifiers

This section lists all session states and session status modifiers issued in DISPLAY SESSIONS and DISPLAY ID commands.

Session State Modifiers and Suffixes

Session states can be followed by one or more session status modifiers or by a session state suffix of -P or -S.

Session status modifiers

Session status modifiers appear in positions 6–8 of the session state.

Note: Part of the session state might be truncated if a modifier is present. For example, if code PDSRLST is issued with status modifier /C, VTAM displays **PDSRL/C**. Because the first 5 characters of session states are unique, it is still possible to identify the original session state.

See “Session Status Modifiers (Positions 6–8)” on page 4-25 for a listing of possible session status modifiers.

Session state suffixes (-P and -S)

If the session state is displayed with a suffix of -P, for example ACTIV-P, the resource is the primary LU.

If the session state is displayed with a suffix of -S, for example ACTIV-S, the resource is the secondary LU.

Session Initiation States

A session state can be classified into one of the following three groups:

Q (Queued)

- If the session state is preceded by **A-**, the session is traversing the APPN portion of the network. The session is considered *queued* when the session request has been received at a node performing only APPN functions for this session.

Note: The VARY TERM command cannot be used to terminate sessions in any state that is preceded by **A-**.

- For all other states, the session is considered *queued* under the following circumstances:
  - A session request has been received, but session establishment has not located the resources required for the session.
  - The resources required for the session have been located; however, the resources are temporarily unavailable for sessions. Further session establishment procedures have been suspended until the resource is available. The session is in a reallocation pending state.

P/A (Pending Active)

A session is considered *pending active* when both resources required for session setup have been successfully located and are available for sessions. Session establishment proceeds.

ACT (Active)

A session is considered *active* (ACT) when all session start signals have been received, and a session has been successfully established.

The following table lists the possible session states.

Note: If the session state is preceded by **A-**, the session is traversing the APPN portion of the network. See "Session Initiation States" on page 4-17 for more information about these queued session states.

Session State	Status	Meaning
A-PCOS	Q	Pending COS reply.
A-PCRYPT	Q	Pending cryptographic keys.
A-PDS	Q	VTAM has an APPN locate chain for the session. A search may be in progress or completed, but the session is not fully active yet. To determine the complete status of the session, use the SID and LU names from the message to find the LUs and session in this and other hosts.
A-PNCOSM	Q	Pending entry COS mapping.
A-PRSCV	Q	Pending RSCV reply.
A-PSACF	Q	Pending subarea chain flow.
A-PSAR	Q	Pending Subarea reply.
A-PTGVS	Q	Pending TG reply.
A-PXCOSM	Q	Pending exit COS mapping.
A-QUEUE	Q	This LU-LU session is queued. One of the LUs is at its session limit or is not available. If this VTAM is functioning as an APPN network node server and is not doing any subarea routing, this state is the only queued state that is displayed. If this VTAM does subarea routing, in either a pure subarea or mixed APPN/subarea network, one of the other queued session states listed in this table will be displayed.
A-TERM	P/A	The session is pending termination.

Session State	Status	Meaning
ACTIV	ACT	The session is active. A session has been successfully established.
ADIALIP	P/A	Dial in progress for APPN LU.
CDPRIP	Q	CDINIT pending cross-domain routing completion. Another request is pending for the specified LU, and this session will wait for routing to complete.
DDIALIP	Q	Dial in progress for DLU. A session will stay in DDIALIP until the DIAL START process completes. This process includes completing the connection and activating the PU and its subordinate resources. The length of time a session stays in DDIALIP is dependent upon the network configuration.
DLUCOMP	Q	DLU direction processing complete.
DLUPROR	Q	DLU direction processing required.
DLURNAA	Q	DLU direction RNAA processing needed.
DNOTFYNN	Q	Destination notification not necessary
DRNASUS	Q	DLU direction RNAA processing suspended pending termination using same PLU network address.
DSSPD	Q	DSRLST pending cross-domain routing in progress. The DSRLST will be sent when routing is complete for the previous request.
INITC	Q	The SIB has been initialized.
INITSENT	Q	INIT or CDINIT response has been sent.
NULL	Q	Initial state of session.
ODIALIP	Q	Dial in progress for the OLU.
OLUEC	Q	OLU endpoint processing complete.
OLUCOMP	Q	OLU direction processing complete.
OLUEN	Q	OLU endpoint domain processing needed.
OLUPROR	Q	OLU direction processing required.
OLURNAA	Q	OLU direction RNAA processing needed.
ORNASUS	Q	OLU direction RNAA processing suspended pending termination of a session using same PLU network address.
PADIAL	P/A	Pending dial response for APPN LU.
PARAMRU	P/A	Pending APPN LU address assignment. A network address was needed for one of the LUs. VTAM has either sent an RNAA to the boundary function that owns the adjacent link station for one of the LUs or has sent a CDINNIT format 5 to the SSCP at the end of a VRTG and is waiting a response.
PARSCV	P/A	Pending APPN RSCV calculation for SLU initiated sessions.
PBFCINIT	P/A	Pending BFCINIT response.

Session State	Status	Meaning
PBIPLUBF	P/A	Pending receipt of the BFINIT from the boundary function of the APPN PLU.
PBISLUBF	P/A	Pending receipt of the BFINIT from the boundary function of the APPN SLU.
PCDCQ	Q	Pending CDCINIT request. This state is set when the SSCP(PLU) has sent or received CDINIT response and is waiting for the SSCP(SLU) to send CDCINIT. If a CDCINIT arrives before this state is reached, the CDCINIT is queued with no state change.
PCDCS	P/A	Pending CDCINIT response.
PCDDQ	Q	Pending CDINITDQ response. This state is set when the session was reallocated and a CDCINIT DQ request was sent.
PCDINIT	Q	Pending CDINIT response.
PCFRES	Q	Pending generic resource resolution for destination LU (DLU).
PCFUPD	Q	Pending coupling facility update for origination LU (OLU).
PCINIT	P/A	Pending CINIT or BFCINIT response.
PCIST	P/A	Pending CINIT or BFCINIT response and session start has already been received.
PCRCQ	Q	Pending session cryptographic key for CINIT request.
PCRCS	Q	Pending session cryptographic key for CINIT response.
PCRDQ	Q	Pending session cryptographic key for DEQUEUE request.
PCRDS	Q	Pending session cryptographic key for DEQUEUE response.
PCRYPK	Q	Pending cryptographic keys.
PDDIAL	Q	Pending dial response for the DLU.
PDLUIO	Q	Pending USS message response in DLU direction. The DLU device must respond to the USS message or no sessions will be initialized.
PDNETDET	Q	Pending DSRLST response for determination of the network identifier of the destination LU. A DSRLST has been sent for another session.
PDRAMRU	Q	DLU pending response from address manager for a request.
PDRDS	Q	Pending resource discovery search (RDS) completion.
PDRNAAD	Q	DLU RNAA response pending from the gateway NCP in the OLU direction.

Session State	Status	Meaning
PDSRLST	Q	Pending direct search list type 01 and 02 response. These types of direct search are sent from the SSCP (OLU) when an autologon session establishment is in progress between a dial SLU and a cross domain PLU, or when a DSRLST is sent for NETID determination.
PNOTIFYV	P/A	Pending NOTIFY(A) for VRTG.
PODIAL	Q	Pending dial response for OLU.
POLUIO	Q	Pending USS message response in OLU direction. The OLU device must respond to the USS message or no sessions will be initialized.
PORAMRU	Q	OLU pending response from address manager for a request.
PORNAAO	Q	An RNAA response is pending from gateway NCP in the OLU direction.
POSACOM	Q	Pending Override Session Address (OSA) completion. This state is set when a session is initiated to a non-SNA SLU, and a previous session with the SLU is terminated.
PPCQRPY	Q	Pending PCID_QUERY_REPLY IPS from the APPN side of the node.
PRAV1	Q	Pending resource available. A resource was found during OLU processing that was unavailable. Session setup will continue when the LU becomes available.
PRAV2	Q	Pending resource available. A resource was found during DLU processing that was unavailable. Session setup will continue when the LU becomes available.
PRAV3	P/A	Status checking found an APPN logical unit's PU temporarily unavailable. Session setup will wait on the PU to become available.
PREALC	Q	Pending re-allocation. A session has been queued.
PRECOVRY	P/A	Pending completion of multinode persistent session recovery processing.
PRMRC	Q	Pending request multiple routes inter-process signal (IPS) for CDINIT.
PRMRD	Q	Pending request multiple routes inter-process signal (IPS) for DSRLST.
PRSCDPRE	Q	Pending RSCV precalculation for the DLU.
PRSCOPRE	Q	Pending RSCV precalculation for the OLU.
PRSCVD	Q	Pending RSCV in the DLU direction.
PRTPS	P/A	Pending RTP start.
PSCRYP	Q	Pending send of the cryptographic control vector by the primary XRF session.

Session State	Status	Meaning
PSEST	P/A	Pending SESSST or BFSESSST request. The session can be expecting any of several signals. Use D NET,SESSIONS,SID= command to see specific signals needed. **Note:** In storage situations, if you do not receive the started signal, it might be because the session is already active.
PSETCVR	Q	Pending SETCV response.
PSHRP	Q	Pending request single hop route reply.
PSLUIO	Q	Pending USS message response in SLU direction. The SLU device must respond to the USS message or no sessions will be initialized.
PSSADR	Q	Pending Set Session Address (SSA) response. SSA is sent as part of initiation when the SLU is a non-SNA LU and not in the same domain.
PTAKOVER	Q	Pending SSCP takeover is complete.
PTCRXCRS	Q	Pending translation of cryptographic keys for the CDINIT response for an XRF backup session.
PTCRYP	Q	Pending translation of cryptographic keys for the backup XRF session.
PXASL	Q	Pending associated LU name translation
PXDA1CDI	Q	Pending DLU alias to real translation. This SSCP located a USERVAR for the DLU and is attempting to translate the DLU real name into an alias name.
PXDA2CDT	Q	Pending DLU alias to real translation. Another SSCP located a USERVAR for the DLU and returned the value as a real name to this SSCP. VTAM is attempting to translate this real name into an alias name.
PXDA3DSL	Q	Pending DLU alias to real translation. During DSRLST response processing, VTAM is attempting to translate the DLU real name into an alias name.
PXDGC	Q	Pending DLU direction COS translation.
PXDLO	Q	Pending DLU logon mode translation.
PXDRD	Q	Pending DLU real name translation.
PXOGC	Q	Pending OLU direction COS translation.
REALCOM	Q	Re-allocation complete.
REALIP	Q	Re-allocation in progress. The session is currently being re-allocated.
SETCVCOM	Q	SETCV complete.
SEIPRT	Q	SESSEND in progress during routing. Routing will continue when the previous session completes termination.

Session State	Status	Meaning
SEOIP	Q	SESSEND processing in progress in OLU domain. A duplicate session exists, and this session will be suspended until termination processing has completed for the duplicate session.
UNKNOWN	Q	The session state could not be determined.

Session Termination States

Termination states that follow are set during termination processing of a session:

NULL	The initial state. Termination is not in progress.
OSARECV	OSA response received.
PBFCLN	Pending BFCLEANUP response.
PCDTM	Pending CDTERM response. This is CDTERM sent for termination.
PCLNP	Pending CLEANUP response.
PCTMR	Pending CTERM response.
PINITO	Pending initiation I/O completion.
PLUIO	Pending USSMSG response from the SLU. A USSMSG was sent to the SLU and VTAM is waiting for a response. The termination of this session will complete when the device responds.
PLUCIO	USSMSG response from the SLU has been received and the session termination is continuing.
PMRCVTRM	Pending multinode persistent session recovery termination signal.
PSESEND	Pending SESSEND or BFSESSEND. The session can expect any of several *session end* signals. Use D NET,SESSIONS,SID command to see specific signals needed. **Note:** Pending session end can also occur as a result of session outage notification processing when pre-V3R2 SSCPs are involved in the session setup even though the session may not currently be in termination.
PSESF	Pending CDSESSSF response.
PSETF	Pending CDSESSTF response.
POSAR	Pending Override Session Address (OSA) response. An OSA request was sent to the non-SNA SLU requesting termination.
UNKNOWN	The session state could not be determined.

Session Status Modifiers (Positions 6–8)

The following session status modifiers can appear in positions 6–8 of the session state. These can occur in any order.

Status Modifier	Meaning
/B	A session establishment request is pending.
/C	One of the session partners is a controlling LU. /C is displayed only by the SLU (that is, the host which entered the VARY LOGON).
/DL	The session is a CP-SVR session.
/I	Persistent session recovery is in progress.
/M	The session is capable of being recovered through multinode persistent session support.
/P	The session is a primary XRF session.
/R	Persistent session recovery is pending.
/U	A session termination request is pending.
/X	The session is a backup XRF session.
/CI	One of the session partners is a controlling LU and persistent session recovery is in progress. /CI is displayed only by the SLU (the host that issued the VARY LOGON).
/CP	The session is a CP-CP session.
/CR	One of the session partners is a controlling LU and persistent session recovery is pending. /CR is displayed only by the SLU (the host that issued the VARY LOGON).
/MI	Multinode persistent session recovery is in progress.
/MR	Multinode persistent session recovery is pending.
/PB	The session is a primary XRF session, and a session establishment request is pending.
/PC	The session is primary XRF session, and one of the session partners is a controlling LU.
/PI	The session is a primary XRF session, and persistent session recovery is in progress.
/PR	The session is a primary XRF session, and persistent session recovery is pending.
/PU	The session is a primary XRF session, and a session termination request is pending.
/SV	The session is a SNA Service Manager session.
/XB	The session is a backup XRF session, and a session establishment request is pending.
/XC	The session is a backup XRF session, and one of the session partners is a controlling LU.

/XI	The session is a backup XRF session, and persistent session recovery is in progress.
/XR	The session is a backup XRF session, and persistent session recovery is pending.
/XU	The session is a backup XRF session, and a session termination request is pending.

Chapter 5. Wait State Event Codes and IDs

About This Chapter

Wait state event codes and IDs are used to determine why VTAM is in a wait state.

SSCP, PU services, LU services, and network operator services processes that are in wait states are represented by a waiting request element (WRE) queued off the LQAB of the subcomponent that controls the waiting process. The WRE for a process contains a 2-byte event code that identifies the event so you do not have to look at the event ID itself.

For an overview of the wait procedure, see Chapter 2, “Collecting Documentation for Specific Types of Problems” in *VTAM Diagnosis*.

Codes 0102-010A (Configuration Services LQAB Group)

Wait state event codes and IDs associated with the configuration services miscellaneous command LQAB group and their meanings are as follows:

Event Code 0102

Explanation: Configuration services is waiting for an NCP to become active. *xxx...xxx* is the 6-byte NCP network address.

Event ID: EIDCNACT

Event Format: *xxxxxxxxxxxx*

Event Code 0103

Explanation: Configuration services is waiting for a link to become active. *xxx...xxx* is the 6-byte NCP network address, *yyy...yyy* is the 6-byte link network address.

Event ID: EIDCLACT

Event Format: *xxxxxxxxxxxx yyyyyyyyyyyy* 0000

Event Code 0104

Explanation: Configuration services is waiting for the response to an Activate or Deactivate Connect In request (for a VARY ANS command). *xxx...xxx* is the 6-byte NCP network address. *yyy...yyy* is the 6-byte link network address.

Event ID: EIDCCIRS

Event Format: *xxxxxxxxxxxx yyyyyyyyyyyy* 0001

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Event Code 0105

Explanation: Configuration services is waiting for the response to an activate generalized PIU trace or a deactivate generalized PIU trace request. *xxx...xxx* is the 6-byte NCP network address; *yyy...yyy* is the 6-byte trace-resource network address (a PU, LU, Line, or NCP for GPT); *zzzzzz* is the 3-byte SNA request code of the Activate/Deactivate Trace RU; *aa* is the 1-byte trace RU type byte.

Event ID: EIDCTRRS

Event Format: *xxxxxxxxxxxx yyyyyyyyyyyy zzzzzz aa*

Event Code 0106

Explanation: Session services is waiting for an LU to become stable (for example, for error recovery to be completed) so that a session may be set up. *xxx...xxx* is the 8-byte network name of the LU.

Event ID: EIDCSTBL

Event Format: 0000 *xxxxxxxxxxxxxxxx*

Event Code 0107

Explanation: Configuration services is waiting for the response to an activate or deactivate NETCTLR request. *xxx...xxx* is the 16-byte activate or deactivate trace ID (EIDCTRRS). *yyy...yyy* is the 8-byte name of the line.

Event ID: EIDCTNRS

Event Format: *xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx yyyyyyyyyyyyyyyy*

Event Code 0108

Explanation: Configuration services is waiting for the response to an RNAA for an independent LU when processing and ACT trace command. *xxx...xxx* is the 8-byte name of the LU resource. *yyyyyy* is the 3-byte SNA request code for RNAA.

Event ID: EIDCTRNA

Event Format: *xxxxxxxxxxxxxxxx yyyyyy*

Event Code 010A

Explanation: Checkpoint datasets are waiting for ISTPDCLU close to complete.

Event ID: EIDCCKPT

Event Format: CHKPT

Codes 0201-020D (I/O LQAB Group)

Wait state event codes and IDs associated with the I/O LQAB group and their meanings are as follows:

Event Code 0201

Explanation: The requester (with 6-byte network address *xxx...xxx*) is waiting for the response to a normal-flow request unit sent to the resource having the 6-byte network address *yyy...yyy*. *aaaaaaaa* is the 4-byte CPCB operation code corresponding to the RU type. *zzzz* is the 2-byte sequence number of the request unit.

Event ID: EIDINFRS

Event Format: *xxxxxxxxxxxx yyyyyyyyyyyy* 0201 *aaaaaaaa zzzz*

Event Code 0202

Explanation: The requester (with 6-byte network address *xxx...xxx*) is waiting for the response to an expedited-flow request unit sent to the resource having the 6-byte network address *yyy...yyy*. *aaaaaaaa* is the 4-byte CPCB operation code corresponding to the RU type. *zzzz* is the 2-byte sequence number of the request unit.

Event ID: EIDIEFRS

Event Format: *xxxxxxxxxxxx yyyyyyyyyyyy* 0202 *aaaaaaaa zzzz*

Event Code 0203

Explanation: Management services is waiting for a Record Storage request from an NCP as part of the DISPLAY STORE command. *xxx...xxx* is the 6-byte SSCP network address. *yyy...yyy* is the 6-byte NCP network address. *zzzz* is the 2-byte procedure relation ID (PRID).

Event ID: EIDIRCRU

Event Format: *xxxxxxxxxxxx yyyyyyyyyyyy* 0203 *zzzz*

Event Code 0204

Explanation: Logical unit services is waiting for the response to an UNBIND request unit. *xxx...xxx* is the 6-byte network address of the LU sending the request. *yyy...yyy* is the 6-byte network address of the LU to which the request was sent.

Event ID: EIDIURSP

Event Format: *xxxxxxxxxxxx yyyyyyyyyyyy* 0204

Event Code 0206

Explanation: Configuration services (with 6-byte SSCP network address *xxx...xxx*) is waiting for a RECSTOR RU from the NCP (with 6-byte network address *yyy...yyy*) as part of MODIFY DUMP processing. *aaaaaaaa* and *llll* are the address and the length of the NCP storage being requested.

A *vv* of:

04 indicates a dynamic NCP dump
05 indicates a MOSS dump
06 indicates a CSP dump
07 transfer NCP dump header
08 transfer NCP dump main storage.
09 indicates display disk

Event ID: EIDIRSTO

Event Format: *xxxxxxxxxxxx yyyyyyyyyyyy* 0206 *vv aaaaaaaa llll*

Event Code 0208

Explanation: Session services (with 6-byte SSCP network address *xxx...xxx*) is waiting for SESSEND to be received from an LU (with 6-byte network address *yyy...yyy*) or for CDSESSEND to be received from a CDRM (network address *yyy...yyy*) so that the control blocks associated with the session may be freed and the LUs may be reallocated. *aaa...aaa* is the 8-byte name of the network in which the address is known. *zzz...zzz* is the 8-byte PCID associated with the session.

Event ID: EIDISEND

Event Format: *xxxxxxxxxxxx yyyyyyyyyyyy* 0208 *aaaaaaaaaaaaaaaa zzzzzzzzzzzzzzzz*

Event Code 0209

Explanation: The PVI subcomponent is waiting to be posted by TSC when an I/O operation has been scheduled. The 6-byte fields, *xxx...xxx* and *yyy...yyy*, are the network addresses of the originator and destination of the request unit. *aaaaaaaa* is the 4-byte CPCB operation code corresponding to the RU type. *zzzzzzzz* is the address of the TSCB for the to-be-posted operation.

Event ID: EIDIIOSC

Event Format: *xxxxxxxxxxxx yyyyyyyyyyyy* 0209 *aaaaaaaa zzzzzzzz*

Event Code 020B

Explanation: Session services (SSCP network address *xxx...xxx*) is waiting for an Override Session Address (OSA) RU for the non-SNA logical unit (6-byte network address *yyy...yyy*) to be completed.

Event ID: EIDIOSAR

Event Format: *xxxxxxxxxxxx yyyyyyyyyyyy* 020B

Event Code 020C

Explanation: Session services is waiting for a response from a device LU. *xxx...xxx* is the 6-byte SSCP network address. *yyy...yyy* is the 6-byte network address for the device LU.

Event ID: EIDIOREQ

Event Format: *xxxxxxxxxxxx yyyyyyyyyyyy* 020C

Event Code 020D

Explanation: Configuration services is waiting for a response to a SETCV(FRS) request.

Event ID: EIDIFRSE

Event Format: *xxxxxxxxxxxx yyyyyyyyyyyy* 020D *aaaaaaaaaaaaaaaa*

Codes 0301-0306 (Logical Unit Services LQAB Group)

Wait state event codes and IDs associated with the logical unit services service manager LQAB group and their meanings are as follows:

Event Code 0301

Explanation: Logical unit services is waiting for a CINIT RU from the SSCP to satisfy an OPNDST ACCEPT request. *xxx...xxx* is an 8-byte primary LU name and *yyy...yyy* is either an 8-byte secondary LU name (for OPNDST ACCEPT SPECIFIC) or is binary zeros (for OPNDST ACCEPT ANY).

z is either **Y** or **N**.

- **Y** indicates the request specified a bind-image override.
- **N** indicates the request did not specify a bind-image override.

www...www is the 8-byte network identifier for the SLU.

Event ID: EIDLACPT

Event Format: *xxxxxxxxxxxxxxxx* 0301 ACCEPT *yyyyyyyyyyyyyyyy wwwwwwwwwwwwwwww z*

Event Code 0302

Explanation: LU services is waiting for a CINIT RU from the SSCP to satisfy an OPNDST ACQUIRE request. *xxx...xxx* is an 8-byte primary LU name and *yyy...yyy* is the 9-byte user-request correlator used to correlate the CINIT to the particular OPNDST ACQUIRE request.

Event ID: EIDLAQIR

Event Format: *xxxxxxxxxxxxxxxx* 0302 ACQUIRE *yyyyyyyyyyyyyyyyy*

Event Code 0304

Explanation: Logical unit services is waiting for a VTAM operator message to be received so that a queued RCVCMD from a programmed operator application request can be completed. *xxx...xxx* is the 8-byte network name of the application program.

Event ID: EIDLRCVC

Event Format: *xxxxxxxxxxxxxxxx* 0304 RCVCMD

Event Code 0305

Explanation: Logical unit services (for a secondary logical unit with 6-byte network address *xxx...xxx*) is awaiting the receipt of a CRV request unit from the primary logical unit (with 6-byte network address *yyy...yyy*) so that OPNSEC macro processing can be completed. *bbbbbbbbbb* is a 5-byte field of blanks (X'4040404040').

Event ID: EIDLCRV

Event Format: CRV*bbbbbbbbbb* 0305 *xxxxxxxxxxxx yyyyyyyyyyyy*

Event Code 0306

Explanation: Logical unit services is waiting for a CRYPTO key translation during OPNSEC processing. *xxx...xxx* is the 8-byte application name. *yyy...yyy* is the 6-byte primary network address and *zzz...zzz* is the 6-byte secondary network address.

Event ID: EIDLTRK

Event Format: *xxxxxxxxxxxxxxxx* 0306 TRKEY *yyyyyyyyyyyy zzzzzzzzzzzz*

Codes 0401-0409 (Physical Unit Services LQAB Group)

Wait state event codes and IDs associated with the physical unit services LQAB group and their meanings are as follows:

Event Code 0401

Explanation: Physical unit services is waiting for an ongoing process to be completed so that another request may be processed. *xxxx* is the 2-byte element address of the (channel) link.

Event ID: EIDPPCMP

Event Format: 0000 *xxxx*

Event Code 0402

Explanation: Physical unit services is waiting for the LUCB associated with an application program to be freed so that close ACB processing can complete. *xxxx* is the 2-byte element address of the application program.

Event ID: EIDPFLUC

Event Format: *xxxx* FREELUCB

Event Code 0403

Explanation: Open/Close is waiting for the pending and queued active sessions to be terminated during a persistent close. *xxxx* is the 2-byte element address of the application program.

Event ID: EIDPTERM

Event Format: *xxxx* PENDTERM

Event Code 0404

Explanation: Physical unit services is waiting for CLOSE ACB processing for all application programs to be completed so that HALT processing for VTAM can be completed.

Event ID: EIDPVHLT

Event Format: VTAM HALT

Event Code 0405

Explanation: Physical unit services is waiting for ACTLU to be received from the SSCP so that OPEN ACB processing can be completed for an application program. *xxx...xxx* is the 8-byte network name of the application program.

Event ID: EIDPACT

Event Format: *xxxxxxxxxxxxxxxx* ACTIVATE

Event Code 0406

Explanation: Physical unit services is waiting for DACTLU to be received from the SSCP so that CLOSE ACB processing can be completed for an application program. *xxx...xxx* is the 8-byte network name of the application program.

Event ID: EIDPDACT

Event Format: *xxxxxxxxxxxxxxxx* DEACTIVATE

Event Code 0407

Explanation: Physical unit services is waiting for allocation or deallocation of a link to complete so that DACTLINK processing may complete. *xxxx* is the 2-byte element address of the link being allocated or deallocated.

Event ID: EIDPADDV

Event Format: *xxxx* LK AL DEAL

Event Code 0408

Explanation: The OPEN/CLOSE subcomponent is waiting for physical unit services to resume processing a delete network resource (DELETENR) request before continuing with a CLOSE ACB request. *xxxxxxxx* is the 4-byte LUCB storage address for which a CLOSE ACB is in progress.

Event ID: EIDPDNRR

Event Format: *xxxxxxxx* DELETENR RESUME

Event Code 0409

Explanation: Physical unit services is waiting for disabled transmission subsystem component (TSC) code to finish processing a logical unit control block (LUCB) before deleting it. *xxxxxxxx* is the 4-byte LUCB storage address TSC is processing.

Event ID: EIDPCDER

Event Format: *xxxxxxxx* CIDCTL DELETE

Codes 0501-0502 (Network Operator Services LQAB Group)

Wait state event codes and IDs associated with the network operator services LQAB group and their meanings are as follows:

Event Code 0501

Explanation: Network operator services is waiting for a RECSTOR RU to be received from an NCP as a part of D NCPSTOR or D DISK command processing. *xxx...xxx* is the 8-byte network name of the NCP and *aaa...aaa* and *llll* are the address and the length of the NCP storage being displayed. *tt* is the 1-byte event ID type code.

Event ID: EIDNNORS

Event Format: *xxxxxxxxxxxxxxxx* 000000 *aaaaaaaa llll tt*

Event Code 0502

Explanation: Network operator services is waiting for a RECTRD RU to be received from an NCP as a part of MODIFY LL2 command processing. *xxx...xxx* is the 8-byte network name of the NCP, and *yyyy* is the 2-byte procedure relation ID (PRID) associated with the request.

Event ID: EIDNRTR

Event Format: *xxxxxxxxxxxxxxxx yyyy*

Codes 0601-060F (Session Services LQAB Group)

The wait state event codes and IDs associated with the session services miscellaneous LQAB group and their meanings are as follows:

Event Code 0601

Explanation: Session services has suspended processing of an RU pending completion of another event. When the other event is completed, the RU will be processed.

This can occur for one of the following reasons:

- A CDCINIT has been received in a gateway SSCP, and SETCV processing has not completed.
- A CDCINIT was received, and cryptographic processing has not completed.
- A duplicate session information block (SIB) or direct search list SIB (DSSIB) was found which has a lower PCID procedure resubmit number than the input request.
- A CDINIT DQ was received before the response to CDINIT QUEUED.
- A CDSESSST was received before the CDCINIT response.

xxx...xxx is the 8-byte PCID associated with the session.

Event ID: EIDSIDEQ

Event Format: 0601 *xxxxxxxxxxxxxxxx*

Event Code 0602

Explanation: Session services is waiting for a CDINIT RU to be routed to the next SSCP in the session initiation path. *xxx...xxx* is the 8-character network ID of the next SSCP, and *yyy...yyy* is the 8-character name of the LU.

Event ID: EIDSINIT

Event Format: 0602 *xxxxxxxxxxxxxxxx yyyyyyyyyyyyyyyy*

Event Code 0603

Explanation: Session services is waiting for the completion of CDRM activation. *xxx...xxx* is the 8-byte name of the CDRM.

Event ID: EIDECDIN

Event Format: 0603 *xxxxxxxxxxxxxxxx*

Event Code 0604

Explanation: Session services is waiting for a previous dial to complete. *xxx...xxx* is the 8-byte symbolic name of the PU. *zzz...zzz* is an 8-byte hexadecimal procedure correlation ID (PCID) that is associated with the LU-LU session.

Event ID: EIDCDIAL

Event Format: 0604 DIAL *xxxxxxxxxxxxxxxx zzzzzzzzzzzzzzzz*

Event Code 0605

Explanation: CDTAKEDOWN Complete RU will be sent to notify the SSCP when all sessions using the specified SSCP have been terminated. *xxx...xxx* is the 8-byte name of an external SSCP.

Event ID: EIDCDTAK

Event Format: 0605 *xxxxxxxxxxxxxxxx*

Event Code 0606

Explanation: Session services is waiting for CDSESSEND because a PLU that initiated a session request has duplicated the network address pair of a terminating session. *xxx...xxx* is the 8-byte network identifier for the PLU and *yyy...yyy* the 6-byte network address for the PLU. *zzz...zzz* is the 8-byte PCID associated with the terminating session.

Event ID: EIDICDSE

Event Format: 0606 *xxxxxxxxxxxxxxxx yyyyyyyyyyyy zzzzzzzzzzzzzzzz*

Event Code 0607

Explanation: Session services is waiting to obtain a cryptographic key for the session. *xxx...xxx* is the 8-byte PCID associated with the session.

Event ID: EIDCRYPY

Event Format: 0607 *xxxxxxxxxxxxxxxx*

Event Code 0608

Explanation: Session services is waiting for a SESSST for an XRF primary session with cryptographic information so that XRF backup session initiation is resumed. *xxx...xxx* is the 8-byte XRF SLU name.

Event ID: EIDSXRCS

Event Format: 0608 *xxxxxxxxxxxxxxxx*

Event Code 0609

Explanation: Session services is waiting to obtain a cryptographic key for an XRF backup session. *xxx...xxx* is the 8-byte PCID for the session.

Event ID: EIDSXCRT

Event Format: 0609 *xxxxxxxxxxxxxxxx*

Event Code 060A

Explanation: Session services is waiting for a direct search list (DSRLST) response with the SLU's destination for an INIT OTHER CD. *xxx...xxx* is the 8-byte PCID associated with the session.

Event ID: EIDSIOCD

Event Format: 060A *xxxxxxxxxxxxxxxx*

Event Code 060B

Explanation: Session services is waiting for a DSRLST response to determine the network ID of the DLU. The DSRLST was sent for another session and the same DLU.

Event ID: EIDSDNTS

Event Format: 060B *xxxxxxxxxxxxxxxx yyyyyyyyyyyyyyyy*

Event Code 060C

Explanation: Session services is waiting to obtain a cryptographic key for the session during CDINIT request or response processing.

Event ID: EIDSCDCR

Event Format: 060C *xxxxxxxxxxxxxxxx*

Event Code 060D

Explanation: Session services is waiting to obtain a cryptographic key for the session during DSRLST processing.

Event ID: EIDSDSCR

Event Format: 060D *xxxxxxxxxxxxxxxx*

Event Code 060E

Explanation: Session services is waiting to obtain a cryptographic key for the session during DEQUEUE request processing.

Event ID: EIDSDQRQ

Event Format: 060E *xxxxxxxxxxxxxxxx*

Event Code 060F

Explanation: Session services is waiting to obtain a cryptographic key for the session during DEQUEUE response processing.

Event ID: EIDSDQRS

Event Format: 060F *xxxxxxxxxxxxxxxx*

Code 0701 (Session Services LQAB 2 Group)

The wait state event code and ID associated with the session services miscellaneous LQAB 2 group and its meaning is as follows:

Event Code 0701

Explanation: Session services is waiting for a session setup attempt to succeed or fail so that the session initiator may be notified. *xxx...xxx* is an 8-byte hexadecimal procedure correlation ID (PCID). *yyy...yyy* is the 8-byte name of the SSCP in the OLU direction. *zzz...zzz* is the 8-byte name of the logical unit.

Event ID: EIDINTFY

Event Format: 0701 *xxxxxxxxxxxxxxxx yyyyyyyyyyyyyyyy zzzzzzzzzzzzzzzz*

Chapter 6. Abend Codes

About This Chapter

This chapter contains the abend codes related to VTAM. For more information about system codes, refer to the system code manual for your operating system.

Abend codes indicate that the control program has determined that a task cannot continue processing reliably. For example, an error may have occurred during the execution of a user's application program and been detected by VTAM. In such a case, the task is terminated. A completion code indicates the reason for the termination.

See Chapter 2, "Collecting Documentation for Specific Types of Problems" in *VTAM Diagnosis* for information on the abend procedure. See Chapter 3, "Collecting Documentation for TSO/VTAM Problems " in *VTAM Diagnosis* for information on TSO/VTAM abends.

Code Descriptions

0A7 **Explanation:** During VTAM HALT QUICK, VTAM HALT, VTAM HALT CANCEL, or VTAM abnormal termination processing, VTAM found that no storage was available to schedule a TPEND exit for an access method control block (ACB) opened by a user's application program or VTAM subtask.

This abend code is also issued during VTAM HALT CANCEL or VTAM abnormal termination processing if a TPEND exit for an ACB does not exist, the ACB was not valid, or the ACB storage was freed.

System Action: The user's application is abnormally terminated.

0A8 **Explanation:** VTAM detected an error that occurred during the execution of a user's application program. The contents of the 2 low-order bytes of register 15 indicate the cause of the error.

Register 15 Contents (in Hex)	Explanation
2101	A VTAM validity check of the user's request parameter list (RPL) failed because the RPL does not have the same protection key as the application program's task control block (TCB).
7001	The user's event control block (ECB) is not valid.
7002	A VTAM request for storage failed.
7003	The pointer to the request parameter list (RPL) is not valid.
7004	An ACB OPEN failed due to an access method control block (ACB) address that is not valid.
7005	Storage pointed to by RPLAREA is not valid.
7006	Storage pointed to by RPLAAREA is not valid.
7007	The request parameter list (RPL) is not valid. Unable to find ACB.

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7008	RPL6 pointed to by RPLAAREA is not valid.
7009	Node initialization block(s) (NIB) pointed to by the request parameter list (RPL) is not valid.
700A	Model Terminal Support (MTS) data pointed to by node initialization block (NIB) is not valid.
700B	Restore parameter list pointed to by node initialization block (NIB) is not valid.
700C	Application-supplied dial parameters storage pointed to by node initialization block (NIB) is not valid.
700D	Bind area pointed to by node initialization block (NIB) is not valid.
FC01	Network management interface abend.
FC02	VTAM agent user's read queue PAB had a storage failure.
FF01	A session awareness (SAW) data buffer that is not valid was passed to VTAM's data space services release routine.

System Action: The task abnormally terminates.

Programmer Response: This is probably a user error.

- For reason codes **2101, 7001, 7003, 7005, 7006, 7007, 7008, 7009, 700A, 700B**, and **700C**, verify that the RPL and ECB pointers are correct, and execute the job step again.
- For reason code **7004**, verify that the ACB pointer is valid and check the storage to be sure it resides in the application's storage protection key.
- For reason code **7002**, verify that the operator entered the buffer pool or CSA** start options as specified in the start procedures.

  Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the new start option.

  – Use the *Estimating Storage for VTAM* diskette to determine the storage requirements for VTAM.

  – See Chapter 4, “Start Options” in the *VTAM Resource Definition Reference* for a description of VTAM start options.

  – See “DISPLAY BFRUSE Command,” “DISPLAY STORUSE Command,” and “MODIFY VTAMOPTS Command” in *VTAM Operation* for additional information.

  – See “Buffer Pools” in the *VTAM Network Implementation Guide* for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.

  – See Chapter 6, “Using VTAM Dump Analysis Tools ” in *VTAM Diagnosis* for information about analyzing dumps. If external trace is active, see “Analyzing Storage” in *VTAM Diagnosis* for information about analyzing storage using the VIT analysis tool.
- For reason code **700D**, check the application program.
- For reason code **FC01**, save the dump for problem determination.
- For reason code **FF01**:

– If you have access to IBMLink*, search for known problems in this area. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.

– If you do not have access to IBMLink, report the problem to the IBM software support center.

Problem Determination:

- If MSGLEVEL=(1,1) was not specified in the JOB statement, specify it and rerun the job.
- Save the console log from the primary console. For systems with remote consoles, save the remote console log. For systems with multiple-console support (MCS), save a copy of the hard copy log.
- Save the job stream associated with the job.
- Make sure that the failing job step includes the SYSABEND DD statement.
- Save all the associated output.
- Save the program listing associated with the job.
- Save the dump.
- Have the linkage editor/loader map available.

0A9 **Explanation:** When accompanied by a zero value in register 15, a VTAM HALT command has been successfully completed. If register 15 is not zero, an error has occurred during the execution of a VTAM module. The contents of the 2 low-order bytes of register 15 indicate the cause of the error.

Register 15 Contents (in Hex)	Explanation
0000	A VTAM HALT CANCEL command has been successfully completed.
10F1	The ABEND was issued by VTAM's retry functional recovery routine (FRR) to pass the original abend to the next recovery routine (if any) associated with the task control block (TCB). See the original abend, which was recorded in SYS1.LOGREC and appears just prior to the supervisor call (SVC) dump that was generated and indicated by **10F1**.
6901	Error in CP-CP sessions processing. Missing element on list pointed to by AND_BOTH_CP_STATUS_STORAGE_PTR.
6902	Error in CP-CP sessions processing. Missing element on list pointed to by AND_CW_CP_STATUS_STORAGE_PTR.
6903	Error in CP-CP sessions processing. Missing element on list pointed to by AND_CL_CP_STATUS_STORAGE_PTR.
7002	Storage was not available to drive a user exit.
7005	VTAM was unable to restore its registers from the RPH after a user exit routine returned to VTAM.
7006	CPPROC was unable to obtain adequate storage from the vary work area (VWA).
7007	TPEXIT code was entered while VTAM was holding a lock.
7008	A CPWAIT was attempted with an event ID length greater than EIDMAX.

7009	A message module needs more vary work area (VWA) storage within the component recovery area (CRA) than is currently available.
700F	Encountered a session awareness block (SAB) that was not valid.
7010	A GETRDTE or RDTFIND for a resource failed because the resource definition table entry (RDTE) chain has been corrupted.
7012	A lock's count shows no user is holding the lock, but the lock is held.
7013	Lock hierarchy violation.
7014	TSLINK found the component recovery area (CRA) too small to hold all of the data.
7015	A transmission subsystem control block (TSCB) was encountered that is not valid.
7071	A RELSTORE was issued for a previously freed buffer.
7072	A VTFREE was issued for a previously freed area.
7074	A VTFREE was issued for a buffer that is not valid.
7075	A FREEBLK was issued for a previously freed storage area.
7076	C/370 code ran out of ISA storage for autodata.
7077	Storage management header has been overlaid.
7078	The last word in the buffer being RELSTOREd is not BFPPCBA (fence corrupted).
7079	Header in REQSTORE buffer being allocated is not valid (no match on fence word).
707A	A FREESTOR was issued for a previously freed storage area.
CD01	CDRM error detected.
CF01	An error was found and corrected in a CDRM minor node during CDRM major node deactivation.
FA01	DS process error.
FA02	The DS disk I/O subtask has abended due to insufficient storage. The checkpoint has been disabled.
FA09	Initialization error.
FE02	A pool has been defined by the POOLDEF macro with an unacceptable length or the lengths in a variable-length pool were not defined in ascending order.
FE03	The GETSTOR pool was defined with an unacceptable length or lengths not ascending.
FF02	A FREEBLK macro returned a nonzero return code.
FF03	A utility module detected a function code that is not valid.
FF04	A request, response, or vector was not defined to the RU information table.
FF05	The main entry for the extended router was invoked but processing was already occurring within a CALLSSCP environment.
FF06	No sense code was set, but one should have been.
FF07	The CPCBURC field contained no format, but the response has a format.

FF08 The limit of topology elements (SWBVDCVD) has been exceeded. D3/D4 vectors for elements exceeding limit were not built.

FF09 The VWA area in use is too small to satisfy this request.

FF10 A request was made to queue a response to a process anchor block (PAB).

FF11 A suspend code that is not valid was passed to suspend.

FF12 A SENDER invocation that is not valid was made.

FF13 An unexpected value was received. The value may be valid in another context.

FF14 An unexpected finite state machine (FSM) state was encountered.

FF15 An unexpected field value was encountered for an enumerated type.

FF16 An unexpected control block was received as input.

FF17 A session information block (SIB) or SIB address that is not valid was passed to FREESIB.

FF18 The SENDER buffer area is not large enough.

FF19 The DETERMINER routine returned results that are not valid.

FF20 The BUILD routine returned results that are not valid.

FF22 SRTDEL failed.

FF24 VTAM agent user's read queue PAB dispatched with incorrect application work element.

| **FF25** HPRCTL was issued with the TOKEN option and the value passed was not valid.

| **FF99** Indicates that a FFST* probe was tripped. Console messages with prefix EPW will be issued by FFST to provide information about the probe trip. See *VTAM Diagnosis* for a description of FFST probes.

System Action: The task that initiated the VTAM request abnormally terminates.

Problem Determination:

- If MSGLEVEL=(1,1) was not specified in the JOB statement, specify it and rerun the job.
- Save the console log from the primary console. For systems with remote consoles, save the remote console log. For systems with multiple-console support (MCS), save a copy of the hard copy log.
- Save the job stream associated with the job.
- Make sure that the failing job step includes the:
  1. SYSABEND DD statement
  2. SYSUDUMP DD statement.
- Save all the associated output.
- Save the dump.
- Execute the EREP service aid to dump the LOGREC file, and save the resulting output. For MSS, execute the following program to dump the LOGREC file:
  1. Service aid IFCISDA0
  2. Program ISDASDAO with the DETAIL(ALL) parameter.

- If register 15 is **7015**, take the following actions to try to determine the cause of the TSCB integrity loss:
  1. Save the dump.
  2. If VTAM internal trace is running MODE=EXT, save this trace.

     Note: The default trace internal options may not be enough to resolve this problem. All options but LOCK, with a trace table of at least SIZE=200, may be required.

0AA **Explanation:** An abend condition occurred during execution of VTAM. VTAM's functional recovery routines (FRRs) were unable to associate the failure with any particular task control block (TCB) in the address space.

System Action: All the tasks in the address space are abnormally terminated.

Problem Determination:

- If MSGLEVEL=(1,1) was not specified in the JOB statement, specify it and rerun the job.
- Save the console log from the primary console. For systems with remote consoles, save the remote console log. In systems with multiple-console support (MCS), save a copy of the hard copy log.
- Make sure that the failing job step includes the SYSABEND DD statement.
- Save all the associated output.
- Save the dump.
- Have the linkage editor/loader map available.

0AB **Explanation:** An error occurred while TSO/VTAM was in operation and a VTIOC module was executing a VTAM macro. The contents of the 2 low-order bytes of register 15 indicate the cause of the error.

This error is usually due to a storage problem with the LPBUF or CRPL buffers.

Register 15 Contents (in Hex)	Explanation
0101	The terminal-input manager for LU1 (e.g. IBM 3767 and IBM 3770 terminals) encountered an unrecoverable error while executing a VTAM macro that uses a request parameter list (RPL).
0102	The terminal-output manager for LU1 (e.g. IBM 3767 and IBM 3770 terminals) encountered an unrecoverable error while executing a VTAM macro that uses an RPL.
0103	The terminal-input manager for LU0 and LU2 (e.g. IBM 3270 SNA terminals) encountered an unrecoverable error while executing a VTAM macro that uses an RPL.
0104	The terminal-output manager for LU0 and LU2 (e.g. IBM 3270 SNA terminals) encountered an unrecoverable error while executing a VTAM macro that uses an RPL.
0105	The VTIOC LOSTERM exit routine encountered an error during execution of a SNA BIND or UNBIND command that used an RPL.
0201	An application ID problem was encountered during execution of a VTAM OPEN macro. The error occurred during initialization of a TSO/VTAM user-address space.

0202 An error occurred during execution of a VTAM OPEN macro. The ERROR field of the ACB indicates the problem. The values that can be set in the ERROR field are listed in “ACB OPEN and CLOSE Macroinstruction Error Fields” on page 2-2.

0203 An error occurred during execution of a VTAM CLOSE macro. The code in the ERROR field of the ACB is X'42', indicating that the ACB has been closed, but a VTAM error has prevented the successful disconnection of one or more TSO terminals.

System Action: The terminal session in which the error occurred terminates.

Problem Determination:

- Save the console log from the primary console. For systems with remote consoles, save the remote console log. For systems with multiple-console support (MCS), save a copy of the hard copy log.
- Save all the associated output.
- Save the dump.
- Execute the EREP service aid to dump the LOGREC file, and save the resulting output. For MSS, execute the following program to dump the LOGREC file:
  1. Service aid IFCISDA0
  2. Program ISDASDAO with the DETAIL(ALL) parameter.
- Have the linkage editor/loader map available.

0AC **Explanation:** The terminal control address space (TCAS) was unable to continue its normal processing because of an error. The low-order bytes of register 15 and the TCAS work area (TWAR) field TWARSON both contain the reason code that indicates the cause of the error.

Reason Code in Hexadecimal	Explanation
00	A STOP command was entered.
04	A START command that is not valid was entered.
10	The TCAS main task was unable to attach the VTAM interface subtask.
14	The TCAS main task was unable to attach the user-interface subtask.
18	The TCAS main task was unable to attach the console-communication subtask.
1C	TCAS was unable to obtain storage for the TCAS table (TCAST) in the common service area (CSA).
20	The TCAS main task abnormally terminated and was unable to recover.
30	The VTAM interface subtask abnormally terminated and was unable to recover.
34	The user-interface subtask abnormally terminated and was unable to recover.
38	The console-communication subtask abnormally terminated and was unable to recover.

System Action: TCAS abnormally terminates.

Operator Response: Reply ‘DUMP’ to TCAS termination message IKT012D to obtain a dump.

Problem Determination:

- Save the console log from the primary console. For systems with remote consoles, save the remote console log. For systems with multiple-console support (MCS), save a copy of the hard copy log.
- Save the system output (SYSOUT) associated with the job.
- Save all the associated output.
- Save the dump.
- Print the associated SVC dump data set, using IPCS. See Chapter 3, “Collecting Documentation for TSO/VTAM Problems ” in *VTAM Diagnosis* for information on IPCS.

0AD **Explanation:** An error occurred while TSO/VTAM was in operation and VTIOC’s queue manager was executing a GETCELL or FREECELL macro. The contents of the 2 low-order bytes of register 15 indicate the cause of the error.

Register 15 Contents (in Hex)	Explanation
0108	The cell address supplied to the FREECELL macro is not valid.
010C	No cell pool existed for the FREECELL request.
0110	A cell pool ID that is not valid was specified for the FREECELL request.
020C	No cell pool existed for the GETCELL request.
0210	A cell pool ID that is not valid was specified for the GETCELL request.

System Action: The queue manager abnormally terminates, and the terminal session in which the error occurred terminates.

Problem Determination:

- Save the console log from the primary console. For systems with remote consoles, save the remote console log. In systems with multiple-console support (MCS), save a copy of the hard copy log.
- Save the program listing associated with the job.
- Execute the EREP service aid to dump the LOGREC file, and save the resulting output. For MSS, execute the following program to dump the LOGREC file:
  1. Service aid IFCISDA0
  2. Program ISDASDAO with the DETAIL(ALL) parameter.
- Have the linkage editor/loader map available.
- Print the associated SVC dump data set, using IPCS. See Chapter 3, “Collecting Documentation for TSO/VTAM Problems ” in *VTAM Diagnosis* for information on IPCS.

CC5 **Explanation:** CC5 is the abend completion code for abends issued from sockets-over-SNA. The contents of the 2 low-order bytes of register 15 indicate the cause of the error.

Register 15 Contents in Hexadecimal	Explanation
0826	Indicates an error in the routine that increments/decrements the target task's updates-in-progress counter. Abend when trying to decrement a zero counter.

0827	Abend for a connection that was not accepted and the connection control block is not valid.
0828	Indicates a previous failure in sockets-over-SNA and an ALESERV ADD MVS macro failure.
0829	Indicates a previous failure in sockets-over-SNA and an ETCON MVS macro failure.
0830	Indicates an ALESERV ADD macro failure.
0831	Indicates that ISU1 subsystem was not found.
0832	Indicates that ISU1 subsystem was not initialized.
0833	Indicates an ALESERV DELETE MVS macro failure.
0834	A request to close a communication group was issued from an address space other than the one for which the group was defined.
0836	Indicates a RESMGR ADD MVS macro failure.
0837	Indicates a RESMGR DELETE MVS macro failure.
0838	Indicates a ETCON MVS macro failure.
0839	Indicates an ALESERV ADD MVS macro failure.
0840	Sockets-over-SNA attempted to decrement the target task's updates-in-progress counter when it registered zero.
0841	The updates-in-progress counter overflowed.
0842	Indicates an attempt to decrement the counter when the counter registered zero.
0843	Indicates an attempt to close the communication group before all endpoints were closed.
0844	Indicates an attempt to close the communication group that is not defined.
0845	A request was made to free a connection. That connection was not found.
0846	A name or token retrieve system call has failed.
0847	A name or token has been created.
0848	A name or token has been deleted.
0849	In AR mode when an SVC must be issued.
0850	Unable to obtain storage.
0851	Unable to establish ESTAE.
0893	Occurs due to attempting to decrement the counter for special IPC events when the counter is already zero.
0A22	Serious error during cleanup; address space terminated.

System Action: The system abends and takes an ABEND dump.

Operator Response: None.

Problem Determination:

- Save the console log from the primary console. For systems with remote consoles, save the remote console log. In systems with multiple-console support (MCS), save a copy of the hard copy log.

- Save the program listing associated with the job. See Chapter 3, “Collecting Documentation for TSO/VTAM Problems ” in *VTAM Diagnosis* for more information.

Chapter 7. ATM Network-Generated Cause and Diagnostic Codes

About This Chapter

ATM network-generated cause and diagnostic codes are issued in messages IST1556I and IST1558I when a request for activation of a native ATM permanent virtual channel (PVC) or switched virtual channel (SVC) fails. These codes provide information about the cause of a failure detected by the ATM network.

This chapter shows the possible codes that can be issued and their meanings.

Note: The codes included in this chapter are those defined by the International Telecommunication Union - Telecommunication Standardization Sector (ITU-T), as specified in the *ATM User-Network Interface Specification, Version 3.1*, published by the ATM Forum. If you cannot find a particular code in this chapter, refer to the following ITU-T Recommendations or consult your ATM network provider.

- Q.850, *Usage of Cause and Location in DSS 1 and the SS 7 User Part*
- Q.2610, *Broadband Integrated Services Digital Network (B-ISDN) Usage of Cause and Location in B-ISDN User Part and DSS 2*.

VTAM Hint: A possible cause of many errors indicated by ATM network-generated cause and diagnostic codes is an incorrectly coded DLCADDR operand on a GROUP definition statement in the XCA major node or on the PATH definition statement in the switched major node. Refer to “DLCADDR” in the XCA major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node. Refer to “DLCADDR” in the switched major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

ATM Network-Generated Cause Codes

This section describes the cause codes that can be displayed in message IST1556I.

Decimal Code	Meaning	Additional Diagnostic Information
1	Unassigned Number **Explanation:** The number requested by the calling user cannot be reached because it is not currently assigned to any user by the network.	See “Diagnostic Code for Cause Codes 1, 2, and 49” on page 7-7.

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Decimal Code	Meaning	Additional Diagnostic Information
2	No route to specified transit network **Explanation:** The equipment issuing this cause received a request to route the call through a transit network that it does not recognize. The equipment issuing this cause does not recognize the transit network because the network does not exist, or the network exists but does not serve the equipment that is sending this cause. This message is network dependent.	None available
3	No route to destination **Explanation:** The called user cannot be reached because the network that serves the called user is inaccessible.	See “Diagnostic Code for Cause Codes 1, 2, and 49” on page 7-7.
10	VPCI/VCI unacceptable	None available
16	Normal call clearing **Explanation:** The call is being cleared because one of the users involved in the call has requested that the call be cleared.	None available
17	User busy **Explanation:** The called user has indicated an inability to accept another call, although the called user's equipment is compatible with the call.	None available
18	No user responding **Explanation:** The user did not respond to a call establishment message with a connect indication within the time allocated.	None available
21	Call rejected **Explanation:** The called user did not accept this call, although it could have been accepted because the called user was neither busy nor incompatible.	See “Diagnostic Code for Cause Code 21” on page 7-8.
22	Number changed **Explanation:** The called party number indicated by the calling user is no longer assigned.	New destination. New destination is formatted as the called party number information element, including the information element identifier. Transit network selection might also be included.

Decimal Code	Meaning	Additional Diagnostic Information
23	User rejects CLIR **Explanation:** The user rejects all calls with calling line identification restriction (CLIR).	None available
26	Not-selected user clearing **Explanation:** The user has not been routed the incoming call.	None available
27	Destination out of order **Explanation:** The destination cannot be reached because a signaling message could not be delivered to the called user.	None available
28	Incorrect number format (address incomplete) **Explanation:** The called user cannot be reached because the called party number is not a valid format or is not complete.	None available
30	Response to status inquiry **Explanation:** This value is included in the status message after the prior receipt of a status inquiry message.	None available
31	Normal, unspecified **Explanation:** A normal event occurred and no other cause in the normal event class applies.	None available
35	Requested VPCI/VCI not available	None available
38	Network out of order **Explanation:** The network is not functioning correctly, and the condition is likely to last a long time. Immediately retrying a call is not likely to be successful.	None available
41	Temporary failure **Explanation:** The network is not functioning correctly, but the condition is not likely to last a long time. Another call attempt can be tried almost immediately.	None available
43	Access information discarded **Explanation:** The network could not deliver access information to the called user as requested. Access information includes low-layer compatibility and high-layer information.	See “Information Element Identifier” on page 7-8. Multiple information element identifiers might be included.
45	No VPCI/VCI available	None available

Decimal Code	Meaning	Additional Diagnostic Information
47	Resource unavailable, unspecified **Explanation:** A resource unavailable event occurred and no other cause in the resource unavailable class applies.	None available
49	Quality of service not available **Explanation:** The requested quality of service cannot be provided.	See "Diagnostic Code for Cause Codes 1, 2, and 49" on page 7-7.
51	User cell rate not available	See "ATM User Cell Rate Subfield Identifier" on page 7-9. Multiple ATM user cell rate subfield identifiers might be included.
57	Bearer capability not authorized	None available
58	Bearer capability not presently available **Explanation:** The requested bearer service is implemented by the equipment, but it is not available at this time.	None available
63	Service or option not available, unspecified **Explanation:** A service or option is unavailable and no other cause in the service or option-not-available class applies.	None available
65	Bearer capability not implemented **Explanation:** The equipment issuing this cause does not support the requested bearer capability.	None available
73	Unsupported combination of traffic parameters	None available
79	Service or option not implemented, unspecified **Explanation:** A service or option is not implemented and no other cause in the service or option-not-implemented class applies.	None available
81	Incorrect call reference value **Explanation:** The equipment sending the cause received a message with a call reference that is not currently in use on the user-network interface.	None available

Decimal Code	Meaning	Additional Diagnostic Information
82	Identified channel does not exist **Explanation:** The equipment issuing this cause received a request to establish a call that has low-layer compatibility, high-layer compatibility, or other compatibility attributes that it cannot accommodate.	See “Virtual Path Connection Identifier (VPCI) and Virtual Channel Identifier (VCI)” on page 7-10.
88	Incompatible destination **Explanation:** The equipment issuing this cause received a request to establish a call that has low-layer compatibility, high-layer compatibility, or other compatibility attributes that it cannot accommodate.	See “Information Element Identifier” on page 7-8. Multiple information element identifiers might be included.
89	Incorrect endpoint reference	None available
91	Incorrect transit network selection **Explanation:** An incorrectly formatted transit network identifier was received.	None available
92	Too many pending add party requests	None available
93	AAL parameters cannot be supported	None available
95	Incorrect message, unspecified **Explanation:** A message event occurred and no other cause in the incorrect message class applies.	None available
96	Mandatory information element is missing **Explanation:** The equipment sending this cause received a message that is missing an information element required to process the message.	See “Information Element Identifier” on page 7-8. Multiple information element identifiers might be included.
97	Message type does not exist or is not implemented **Explanation:** The equipment sending this cause received a message that it does not recognize because the message is not defined or it is defined but not implemented by the equipment sending the cause.	See “Message Type” on page 7-10.

Decimal Code	Meaning	Additional Diagnostic Information
99	Information element does not exist or is not implemented	See "Information Element Identifier" on page 7-8.
	Explanation: The equipment sending this cause received a message that included an information element that is not recognized because the identifier is not defined or it is defined but not implemented by the equipment sending the cause. However, the equipment issuing the cause does not require the information element to be present in the message for processing.	Multiple information element identifiers might be included.
100	Incorrect information element contents	See "Information Element Identifier" on page 7-8.
	Explanation: The equipment sending this cause received an information element that it has implemented, but one or more of the parameters in the information element are coded incorrectly or not implemented.	Multiple information element identifiers might be included.
101	Message not compatible with call state	See "Message Type" on page 7-10.
	Explanation: A message has been received that is incompatible with the call state.	
102	Recovery on timer expiration	See "Timer Number" on page 7-13.
	Explanation: A procedure has been initiated by the expiration of a time in association with Q.2931 error handling procedures.	
111	Protocol error, unspecified	None available
	Explanation: A protocol error event occurred and no other cause in the protocol error class applies.	
121	Interworking, unspecified	None available
	Explanation: Interworking occurred with a network that does not provide causes for actions that it takes. The precise cause for a message that is being sent cannot be ascertained.	

ATM Network-Generated Diagnostic Codes

This section describes the diagnostic codes that can be displayed in message IST1558I.

Diagnostic Code for Cause Codes 1, 2, and 49

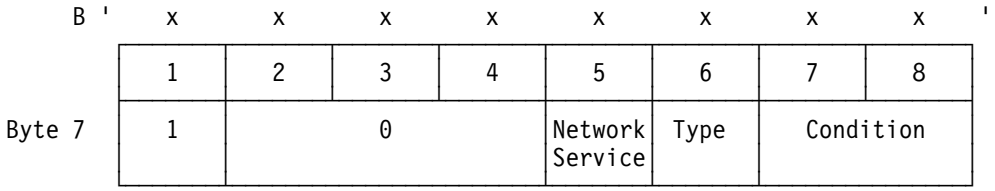

Table 7-1 describes the contents of the diagnostic code for cause codes 1, 2, and 49.

Table 7-1. Diagnostic code for cause codes 1, 2, and 49

Byte	Description
7	**Bit 1 — Extension**
	B'1... ....' Extension
	Bits 2–4 — Spare
	B'.0.. ....' Spare
	B'..0. ....' Spare
	B'...0 ....' Spare
	Bit 5 — Network Service
	B'.... 0...' Provider
	B'.... 1...' User
	Bit 6 — Type of Failure
	B'.... .0..' Normal
	B'.... .1..' Abnormal
	Bits 7 and 8 — Condition
	B'.... ..00' Unknown
	B'.... ..01' Permanent
	B'.... ..10' Transient

Diagnostic Code for Cause Code 21

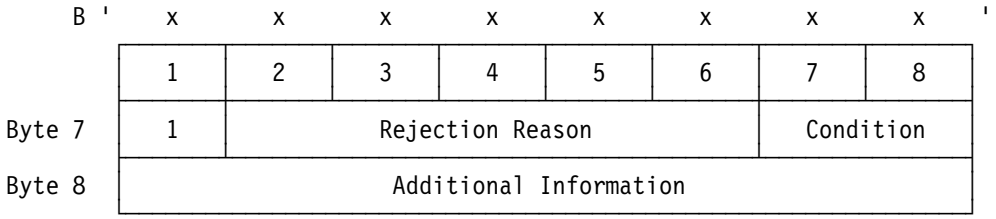

Table 7-2 describes the contents of the diagnostic code for cause codes 21.

Table 7-2. Diagnostic code for cause code 21

Byte	Description
7	**Bit 1 — Extension**
	B'1... ....' Extension
	Bits 2–6 — Rejection Reason
	B'.000 00..' User specific
	B'.000 01..' Information element missing
	B'.000 10..' Information element contents are not sufficient
	Bits 7 and 8 — Condition
	B'.... ..00' Unknown
	B'.... ..01' Permanent
	B'.... ..10' Transient
8	If the rejection reason in byte 7 indicates user specific, byte 8 is coded to the user specification, subject to the maximum length of the cause information element.
	If the rejection reason in byte 7 indicates information element missing or information element contents are not sufficient, byte 8 contains the information element identifier of the missing or insufficient information element.

Information Element Identifier

VTAM Hint: A possible cause of many errors indicated by an ATM network-generated information element identifier cause code is an incorrectly coded DLCADDR operand on a GROUP definition statement in the XCA major node or on the PATH definition statement in the switched major node. Refer to “DLCADDR” in the XCA major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node. Refer to “DLCADDR” in the switched major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

Hexadecimal Code	Meaning
X'08'	Cause
X'14'	Call state
X'54'	Endpoint reference
X'55'	Endpoint state

Hexadecimal Code	Meaning
X'58'	ATM adaptation layer parameters
X'59'	ATM user cell rate
X'5A'	Connection identifier
X'5C'	Quality of service parameter
X'5D'	Broadband high layer information
X'5E'	Broadband bearer capability
X'5F'	Broadband low-layer information
X'60'	Broadband locking shift
X'61'	Broadband non-locking shift
X'62'	Broadband sending complete
X'63'	Broadband repeat indicator
X'6C'	Calling party number
X'6D'	Calling party subaddress
X'70'	Called party number
X'71'	Called party subaddress
X'78'	Transit network selection
X'79'	Restart indicator

ATM User Cell Rate Subfield Identifier

VTAM Hint: A possible cause of many errors indicated by an ATM network-generated ATM user cell rate subfield identifier cause code is an incorrectly coded DLCADDR operand on a GROUP definition statement in the XCA major node or on the PATH definition statement in the switched major node. Refer to “DLCADDR” in the XCA major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node. Refer to “DLCADDR” in the switched major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

Hexadecimal Code	Meaning
X'82'	Forward peak cell rate identifier (CLP=0)
X'83'	Backward peak cell rate identifier (CLP=0)
X'84'	Forward peak cell rate identifier (CLP=0+1)
X'85'	Backward peak cell rate identifier (CLP=0+1)
X'88'	Forward sustainable cell rate identifier (CLP=0)
X'89'	Backward sustainable cell rate identifier (CLP=0)
X'90'	Forward sustainable cell rate identifier (CLP=0+1)
X'91'	Backward sustainable cell rate identifier (CLP=0+1)
X'A0'	Forward maximum burst size identifier (CLP=0)
X'A1'	Backward maximum burst size identifier (CLP=0)

Hexadecimal Code	Meaning
X'B0'	Forward maximum burst size identifier (CLP=0+1)
X'B1'	Backward maximum burst size identifier (CLP=0+1)
X'BE'	Best effort indicator
X'BF'	Traffic management options identifier

Virtual Path Connection Identifier (VPCI) and Virtual Channel Identifier (VCI)

VTAM Hint: A possible cause of many errors indicated by an ATM network-generated VPCI/VCI cause code is an incorrectly coded DLCADDR operand on a GROUP definition statement in the XCA major node or on the PATH definition statement in the switched major node. Refer to “DLCADDR” in the XCA major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node. Refer to “DLCADDR” in the switched major node in the *VTAM Resource Definition Reference* for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

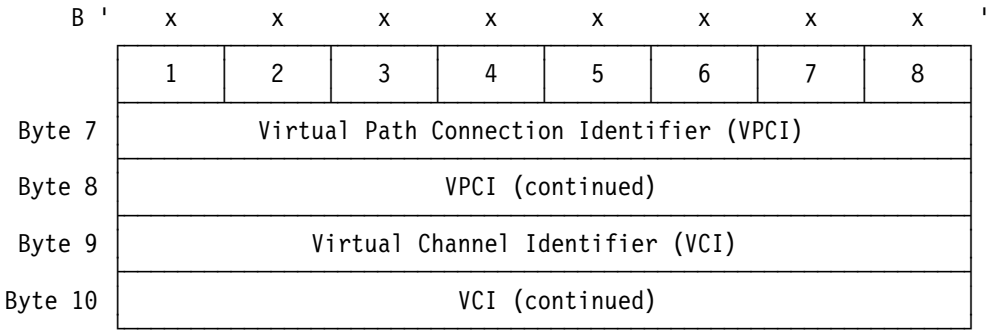

Table 7-3 describes the contents of the VPCI/VCI diagnostic code.

Table 7-3. Virtual Path Connection Identifier and Virtual Channel Identifier

Byte	Description
7	Virtual path connection identifier (VPCI)
8	VPCI (continued)
9	Virtual channel identifier (VCI)
10	VCI (continued)

Message Type

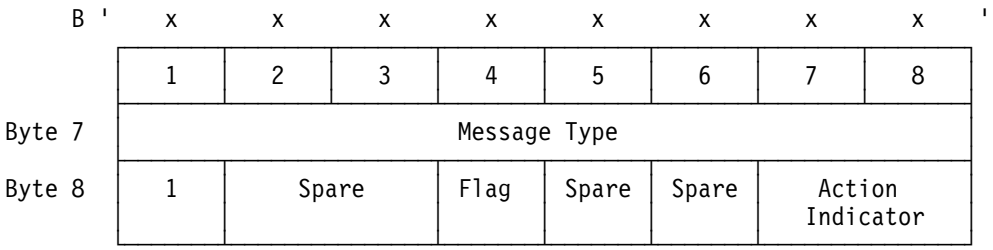

Table 7-4 on page 7-11 describes the contents of the message type diagnostic code.

Table 7-4 (Page 1 of 2). Message Type

Byte	Description	
7	**Call Establishment Messages**	
	X'02'	CALL PROCEEDING
	X'07'	CONNECT
	X'0F'	CONNECT ACKNOWLEDGE
	X'05'	SETUP
	Call Clearing Messages	
	X'4D'	RELEASE
	X'5A'	RELEASE COMPLETE
	X'46'	RESTART
	X'4E'	RESTART ACKNOWLEDGE
	Point-to-Multipoint Messages	
	X'80'	ADD PARTY
	X'81'	ADD PARTY ACKNOWLEDGE
	X'82'	ADD PARTY REJECT
	X'83'	DROP PARTY
	X'84'	DROP PARTY ACKNOWLEDGE
	Miscellaneous Messages	
	X'7D'	STATUS
	X'75'	STATUS ENQUIRY

Table 7-4 (Page 2 of 2). Message Type

Byte	Description	
8	**Bit 1 — Extension**	
	B'1... ....'	Extension
	Bits 2 and 3 — Spare	
	B'.0.. ....'	Spare
	B'..0. ....'	Spare
	Bit 4 — Flag	
	B'...0 ....'	Message instruction field is not significant. Regular error handling procedures apply. Ignore action indicator field.
	B'...1 ....'	Follow explicit instructions in the action indicator field, which supersede regular error handling procedures.
	Bit 5 — Spare	
	B'.... .0..'	Spare
	Bit 6 — Spare	
	B'.... .0..'	Spare
	Bits 7 and 8 — Action Indicator	
	B'.... ..00'	Clear call
	B'.... ..01'	Discard and ignore
	B'.... ..10'	Discard and report status
	B'.... ..11'	Reserved

Timer Number

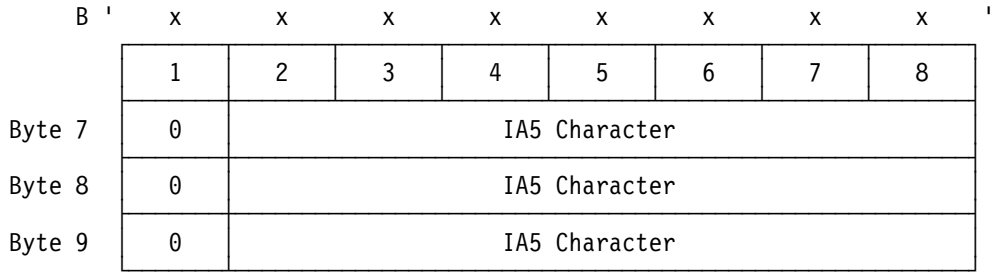

Table 7-5 describes the contents of the timer number diagnostic code.

Table 7-5. Timer Number

Byte	Description
7	**Bit 1 — Spare**
	B'0... ....' Spare
	Bits 2–7 — IA5 Character

Bibliography

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Communication Controller Publications X-7
Other Publications X-8

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Bibliography

VTAM V4R4 Publications

Following are descriptions of the books in the VTAM V4R4 library. The books are arranged in the following categories:

- Softcopy Information
- Marketing Information
- Planning
- Installation, Resource Definition, and Tuning
- Customization
- Operation
- Writing Application Programs
- Diagnosis
- VTAM AnyNet
- APPC Application Suite.

The complete set of unlicensed books in this section can be ordered using a single order number, SBOF-7011.

Softcopy Information

IBM Networking Softcopy Collection Kit CD-ROM (SK2T-6012):

The softcopy library contains softcopy versions of the licensed and unlicensed books for VTAM V4R4.

All of the unlicensed and licensed VTAM books described in this section are available in softcopy on this CD-ROM. These softcopy files can be read using any of the IBM BookManager READ programs. They can also be read with the IBM Library Reader program shipped on this CD.

The CD also contains softcopy of the unlicensed books of many other products.

Marketing Information

A Networking Overview and the following IBM Networking Previews are available:

- AnyNet
- VTAM.

Ask your IBM marketing representative for more information.

Planning and Installation

VTAM Licensed Program Specifications (GC31-8379):

This flyer is the warranty for VTAM and includes:

- A list of new functions
- Descriptions of VTAM features
- Machine requirements
- Programming requirements.

VTAM Release Guide (GC31-6545):

This guide provides an overview of the new functions in VTAM V4R4 and includes:

- Advantages of new functions
- Planning considerations for new functions
- Effect of new functions on existing functions
- Changes to commands, definition statements, and messages
- Programming requirements, such as the release of NCP required.

VTAM Installation and Migration Guide (GC31-8367):

This guide helps you upgrade VTAM V4R3, V4R2, V4R1, or V3R4.2 to VTAM V4R4. It includes:

- Installation procedures
- Planning to upgrade to VTAM V4R4
  - Upward and downward compatibility
  - Software and hardware requirements
  - Storage requirements
  - Impacts of new functions and enhancements performed without changes to user interfaces
  - Changes to installation process
- Upgrading user interfaces to VTAM V4R4
  - Changes to start options
  - Changes to buffer pools
  - Changes to definition statements
  - Changes to IBM-supplied default user-definable tables and modules
  - Changes to user-definable table macroinstructions
  - Changes to commands
  - Changes to messages
  - Changes to VTAM application programming interface
  - Changes to installation-wide exit routines
  - Changes to control blocks.

VTAM Program Directory:

This document is shipped with the product tape and explains the steps for installing VTAM.

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VTAM Glossary (GC31-8366): This glossary defines terms and abbreviations for VTAM and related products. It includes information from the IBM *Dictionary of Computing*, SC20-1699.

Planning for Integrated Networks (SC31-8062): This book helps you plan for SNA (subarea and APPN) and TCP/IP networks. It includes discussion of protocol strategies, migration scenarios, processing goals, and management considerations.

Resource Definition, Configuration, and Tuning

VTAM Network Implementation Guide (SC31-8370): This book presents the major concepts involved in implementing a VTAM network, and includes:

- Buffer pools, slowdown, pacing, storage considerations
- Implementation considerations
- Sample major node definitions
- Migration considerations
- Tables and filters
- TSO, VCNS, and other programs that run with VTAM
- Tuning procedures
- VTAM start options.

Use this book in conjunction with the *VTAM Resource Definition Reference*.

VTAM Resource Definition Reference (SC31-8377): This book describes each VTAM definition statement, start option, and macroinstruction for user tables. It also describes NCP definition statements that affect VTAM. The information includes:

- IBM-supplied default tables (logon mode and USS)
- Major node definitions
- User-defined tables and filters
- VTAM start options.

If you are unfamiliar with the major concepts involved in implementing a VTAM network, use this book in conjunction with the *VTAM Network Implementation Guide*.

VTAM Resource Definition Samples (SC31-8378): This book contains sample definitions to help you implement VTAM functions in your networks, and includes sample major node definitions.

Use this book in conjunction with the *VTAM Network Implementation Guide* and *VTAM Resource Definition Reference*.

Operation

VTAM Operation (SC31-8372): This book serves as a reference for programmers and operators requiring detailed information about specific operator commands. The information includes:

- VTAM commands and start options
- Logon manager commands
- DISPLAY output examples (messages received)
- VSCS commands.

VTAM Operation Quick Reference (SX75-0208): This book contains essential information about VTAM operator commands.

VTAM Messages (GC31-8368): This book describes the following types of messages and other associated information:

- Messages:
  - ELM messages for logon manager
  - IKT messages for TSO/VTAM
  - IST messages for VTAM network operators
  - ISU messages for sockets-over-SNA
  - IVT messages for the communications storage manager
  - IUT messages
  - USS messages
- Other information that displays in VTAM messages:
  - Command and RU types in VTAM messages
  - Node and ID types in VTAM messages
- Supplemental message-related information:
  - Message additions, deletions, and changes
  - Message flooding prevention
  - Message groups and subgroups
  - Message routing and suppression including descriptor codes, routing codes, and suppression levels for ELM, IKT, IST, and ISU messages
  - Message text and description formats
  - Message text of MSGLVL option messages including general information on the MSGLVL option
  - Message text of all VTAM network operator messages including variable field lengths

VTAM Codes (GC31-8369): This book describes codes and other information that display in VTAM messages:

- Sense codes including VTAM sense code hints, SNA sense field values for RPL-based macroinstructions, and 3270 SNA and non-SNA device sense fields
- Return codes for macroinstructions including ACB OPEN and CLOSE macroinstruction error fields, RTNCD-FDB2 return code combinations, and LU 6.2 RCPRI-RCSEC return codes
- Data link control (DLC) status codes
- Status codes including resource status and session state codes
- Wait state event codes and IDs
- Abend codes
- ATM network-generated cause and diagnostic codes.

Using IBM CommandTree/2 (SC31-7013): IBM CommandTree/2 is a workstation product that enables an operator to construct commands and send them to a specified destination for processing. The VTAM command set library includes:

- VTAM commands
- Logon manager commands
- Help for commands and start options.

Customization

VTAM Customization (LY43-0075): This book enables you to customize VTAM, and includes:

- Communication network management (CNM) routing table
- Logon-interpret routine requirements
- Logon manager installation-wide exit routine for the CLU search exit
- TSO/VTAM installation-wide exit routines
- VTAM installation-wide exit routines:
  - Command verification exit (ISTCMMND)
  - Configuration services XID exit (ISTEXCCS) with description of IBM-supplied default exit
  - Directory services management exit (ISTEXCDM)
  - Generic resource resolution exit (ISTEXCGR)
  - Performance monitor exit (ISTEXCPM)
  - SDDLU exit (ISTEXCSD) with description of IBM-supplied default exit
  - Session accounting exit (ISTAUCAG)
  - Session authorization exit (ISTAUCAT)
  - Session management exit (ISTEXCAA) with example
  - TPRINT processing exit (ISTRAEUE)
  - USERVAR exit (ISTEXCUV) with description of IBM-supplied default exit
  - Virtual route pacing window size calculation exit (ISTPUCWC)
  - Virtual route selection exit (ISTEXCVR).

Writing Application Programs

VTAM Programming (SC31-8373): This book describes how to use VTAM macroinstructions to send data to and receive data from (1) a terminal in either the same or a different domain, or (2) another application program in either the same or a different domain. The information includes:

- API concepts
  - Cryptography
  - RUs and exchanges
  - Session establishment and termination
- BIND area format
- Communication Network Management Interface
- Dictionary of VTAM macroinstructions
- OPEN or CLOSE errors
- Operating system differences
- Program Operator Coding requirements
- RAPI DSECTs and control block mappings
- RAPI global variables
- Vector lists
- RPL-based macroinstructions
- RPL RTNCD,FDB2 codes
- User exit routines.

VTAM Guide to Programming for LU 6.2 (SC31-8374): This book describes how to use the VTAM LU 6.2 application programming interface for host application programs. This book applies to programs that use only LU 6.2 sessions or that use LU 6.2 sessions along with other session types. (Only LU 6.2 sessions are covered in this book.) The information includes:

- VTAM's implementation of the LU 6.2 architecture
- Design considerations for LU 6.2 application programs
- Negotiating session limits with partner LUs
- BIND image and response
- Allocating and deallocating conversations
- FMH-5 and PIP data
- Conversation states
- Sending and receiving data
- Using high performance data transfer (HPDT)

- Session- and conversation-level security and data encryption
- Register usage
- Sync point services
- LU 6.2 global variables
- Vector lists
- Sense codes for FMH-7 and UNBIND
- RCPRI,RCSEC codes
- User exit routines.

VTAM Programming Reference for LU 6.2 (SC31-8375):

This book provides reference material for the VTAM LU 6.2 programming interface for host application programs. The information includes:

- APPCCMD macroinstructions
- Primary and secondary return codes (RCPRI, RCSEC)
- DSECTs
- Examples of using VTAM's LU 6.2 API
- Register usage

VTAM Programming for CSM (SC31-8420):

This book describes how applications use the communications storage manager. The information includes:

- Creating and deleting buffer pools
- Obtaining and freeing buffers
- Return codes and reason codes
- DSECTs

VTAM CMIP Services and Topology Agent Programming Guide (SC31-8365):

This book describes the Common Management Information Protocol (CMIP) programming interface for application programmers to use in coding CMIP application programs. The book provides guide and reference information about CMIP services and the VTAM topology agent and includes the following topics:

- Management information base (MIB) API functions
- CMIP message strings
- Special CMIP message strings
- Read queue exit routine
- Sample CMIP application program
- VTAM resources as CMIP objects
- Naming conventions for objects
- VTAM resources and OSI states
- Attributes to object cross-reference
- ASN.1 syntax for CMIP messages
- GDMO table format
- ACYAPHDH header file.

Diagnosis

VTAM Diagnosis (LY43-0078):

This book helps you identify a VTAM problem, classify it, and collect information about it before you call the IBM Support Center. The information collected includes traces, dumps, and other problem documentation. The information includes:

- Command syntax for running traces and collecting and analyzing dumps
- VIT entries
- Procedures for collecting documentation (VTAM, TSO)
- VTAM internal trace and VIT analysis tool
- FFST Probes
- Channel programs
- Flow diagrams
- Procedures for locating buffer pools
- CPCB operation codes
- Storage and control block ID codes
- PIU discard reason codes
- Offset names and locations for VTAM buffer pools.

VTAM Data Areas for MVS/ESA Volume 1 (LY43-0076):

This book describes VTAM data areas and can be used to read a VTAM dump. It is intended for IBM programming service representatives and customer personnel who are diagnosing problems with VTAM.

VTAM Data Areas for MVS/ESA Volume 2 (LY40-0077):

This book describes VTAM data areas and can be used to read a VTAM dump. It is intended for IBM programming service representatives and customer personnel who are diagnosing problems with VTAM.

VTAM AnyNet

VTAM AnyNet Guide to SNA over TCP/IP (SC31-8376):

This guide provides information to help you install, configure, use, and diagnose SNA over TCP/IP.

VTAM AnyNet Guide to Sockets over SNA (SC31-8371):

This guide provides information to help you install, configure, use, and diagnose Sockets over SNA. It also provides information to help you prepare application programs to use sockets over SNA.

APPC Application Suite

APPC Application Suite User's Guide (SC31-6532): This book documents the end-user interface (concepts, commands, and messages) for the AFTP, ANAME, and APING facilities of the APPC application suite. Although its primary audience is the end user, administrators and application programmers may also find it useful.

APPC Application Suite Administration (SC31-6533): This book contains the information that administrators need to configure the APPC application suite and to manage the APING, ANAME, AFTP, and A3270 servers.

APPC Application Suite Programming (SC31-6534): This book provides the information application programmers need to add the functions of the AFTP and ANAME APIs to their application programs.

Multiprotocol Transport Networking (MPTN) Architecture Publications

Following are selected publications for MPTN:

Networking Blueprint Executive Overview (GC31-7057)

Multiprotocol Transport Networking: Technical Overview (GC31-7073)

Multiprotocol Transport Networking: Formats (GC31-7074)

OS/390 Publications

Following are selected publications for OS/390:

OS/390 Information Roadmap (GC28-1727)

OS/390 MVS Initialization and Tuning Reference (SC28-1752)

OS/390 MVS System Commands (GC28-1781)

OS/390 Up and Running! (GC28-1726)

MVS/ESA Publications

MVS/ESA Master Index (GC28-1827)

MVS/ESA Basics of Problem Determination (GC28-1839)

MVS/ESA System Messages (GC28-1812 and GC28-1813)

MVS/ESA Dump Output Messages (GC28-1814)

MVS/ESA System Codes (GC28-1815)

MVS/ESA System Commands (GC28-1826)

MVS/ESA Operations: System Commands Reference (GX22-0013)

MVS/ESA System Management Facilities (SMF) (GC28-1628)

SNA Publications

SNA Format and Protocol Reference Manual: Architectural Logic (SC30-3112)

SNA Formats (GA27-3136)

SNA Network Product Formats (LY43-0081)

Cryptographic Publications

OS/VS1 and OS/VS2 MVS Programmed Cryptographic Facility General Information (GC28-0942)

OS/VS1 and OS/VS2 MVS Programmed Cryptographic Facility Installation Reference Manual (SC28-0956)

Communication Controller Publications

3174 Functional Description (GA-0218)

3720/3721 Communication Controller Problem Determination (GA33-0086)

3725/3726 Communication Controller and Expansion 3727 Operator Console (Template) (GX22-7100)

3727 Operator Console Reference and Problem Analysis Guide (GA33-0015)

Other Publications

Enterprise Systems Architecture/370 Reference Summary (GX20-0406)

EREP User's Guide and Reference (GC28-1378)

NTO General Information (GC38-0297)

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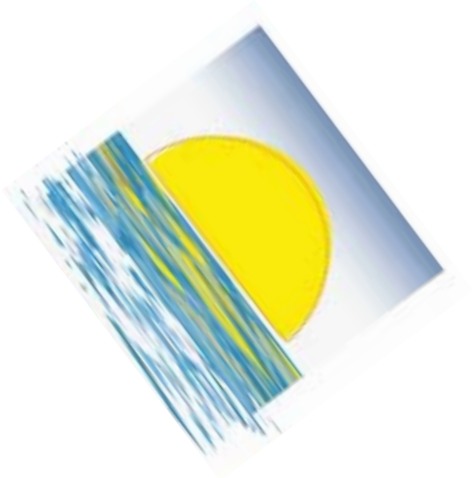

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