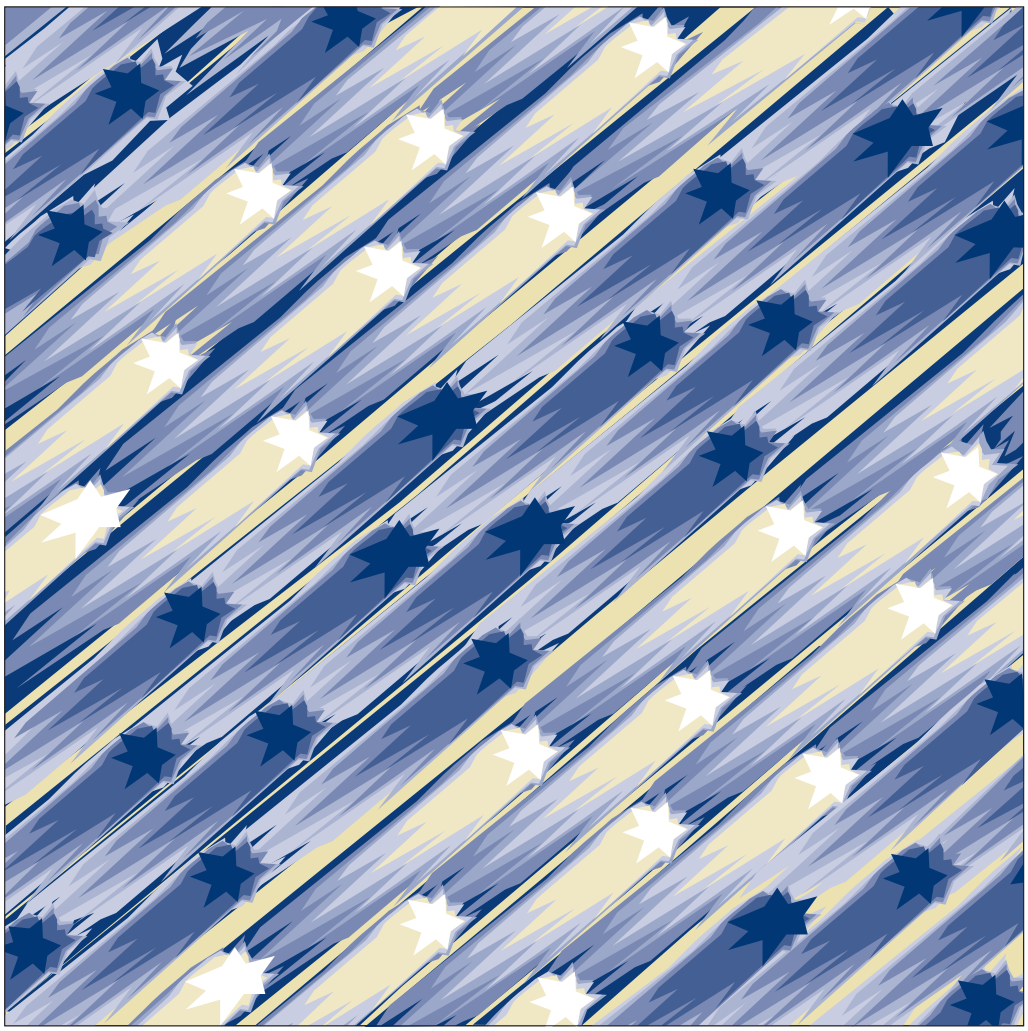
8265 Nways ATM Switch

Command Reference Guide



SA33-0458-01

8265 Nways ATM Switch

Command Reference Guide

SA33-0458-01

Note!

Before using this information and the product it supports, be sure to read the general information under Appendix C, “Notices” on page 203.

Second Edition (January 1998)

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Contents

About this Book

This book describes the commands that are used to manage an IBM 8265 Nways ATM Switch.

Who Should Use this Book

This book is intended for the following people at your site:

- ATM network administrator
- ATM network operator
- Hardware installer.

How to Use this Book

This book contains the following chapters and appendixes:

- **Chapter 1, "Introduction" on page 1** describes how to enter ATM commands from the configuration console.
- **Chapter 2, "ATM Commands" on page 7** gives a description, full syntax, and examples for each command. The commands are listed in alphabetical order.
- **Appendix A, "Port-Specific SET PORT Parameters" on page 177** gives describes parameters for the SET PORT command that apply only to specific ATM media modules.
- **Appendix B, "Maintenance Mode Commands" on page 193** Describes the commands available when the 8265 Switch is running in Maintenance mode.

Prerequisite Knowledge

To understand the information presented in this book, you should be familiar with:

- Features and characteristics of the IBM 8265 Control Point, as described in the *IBM 8265 Nways ATM Switch Control Point and Switch Module: Installation and User's Guide*, SA33-0456 and the *IBM 8265 Nways ATM Switch: User's Guide*, SA33-0441.
- Principles of asynchronous transfer mode (ATM) technology
- ATM Forum UNI Specification V3.0, V3.1 and V4.0.
- ATM Forum PNNI Specification V1.0.
- ATM Forum ILMI 4.0 Specification.

Where to Find More Information

Refer to the documentation listed in the "Bibliography" on page 205.

World Wide Web

You can access the latest news and information about IBM network products, customer service and support, and microcode upgrades via the Internet, at the URL:

`http://www.networking.ibm.com`

Chapter 1. Introduction

This chapter explains how to enter ATM commands to manage the ATM subsystem via the ATM Control Point and Switch (CPSW) module in an IBM 8265.

Where to Enter ATM Commands

ATM commands can be entered either:

- From a local configuration console attached to the CPSW module's RS-232 console port
- From a session on a remote configuration console via the TELNET protocol.

Commands are entered on the current command line, after the console prompt (8265ATM> is the default prompt).

When working in a remote session, you can use all ATM commands except for Maintenance mode commands (see Appendix B, “Maintenance Mode Commands” on page 193) and the TELNET command.

For guidelines on attaching a configuration console to the CPSW module, see the *IBM 8265 Nways ATM Switch: User's Guide*.

Keyboard Functions

BS (Backspace)	Moves the cursor one space backward and deletes the character.
DEL (Delete)	Deletes the currently highlighted character.
Enter	Runs the command or prompts you for missing parameters.
Ctrl + **C**	Cancels the command that is currently entered and returns the prompt.
Space bar	Automatically completes a partially entered command or keyword.
Ctrl + **R**	Recalls the last command entered (but does not run it unless you press Enter). Repeat to scroll through the last 10 commands entered.
Ctrl + **L**	Creates a new command line and displays the command currently being edited.
?	Displays a list of possible completions (commands, keywords, or parameters). See “Command-Line Help (?)” on page 4 for further information.

When a console display requires more than one screen to view the complete contents, the first screen of data is displayed followed by the "MORE..." message, and the following keyboard options are available:

Any key	Displays the next screen of data.
L	Displays the next line of data.
Ctrl + **C**	Cancels the display.

Command Modes

ATM commands fall into two groups:

- Administrator commands
- User commands

Administrator Commands

Administrator commands are only accessible after logging on with the Administrator password (see “SET DEVICE PASSWORD” on page 52). The Administrator has access to all ATM commands.

User Commands

The following commands are accessible with the User password:

- LOGOUT
- PING
- All SHOW commands
- TELNET

Command Syntax Diagrams

Each command in this book is described using a standard syntax diagram, showing the sequence and combination of keywords and parameters.

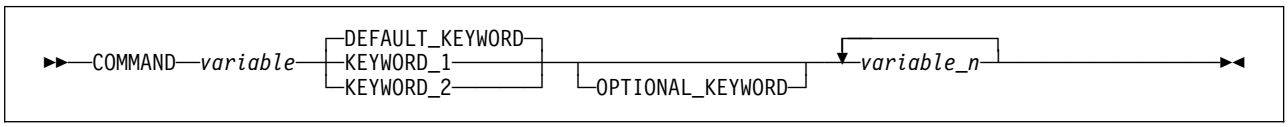


Figure 1. Sample Syntax Diagram

As shown in Figure 1, the main elements of a syntax diagram are:

- The command, shown in CAPITAL letters
- Keywords, also in CAPITAL letters. Default keywords are shown above the command line. Optional keywords are shown below a blank section of the command line.
- Variables, shown in *lowercase italic* letters. Where multiple keywords or variables may be entered, an arrow is shown, as above *variable_n*.

Notes:

1. When entering ATM commands, you can enter parameters in uppercase, lowercase, or mixed-case letters. For example, you can enter `CLEAR COMMUNITY ALL`, `clear community all`, or even `CLEAR Community All`.
2. When in Maintenance mode, the prompt >> is displayed.
3. When configuring ATM media modules and their ports, you must specify the slot number in which the module has been installed. Valid slot numbers for ATM media modules are in the range 1 to 8 and 12 to 17. (If a redundant CPSW module is installed in slots 11 and 12, then slot 12 cannot be used for an ATM media module.

Configuration Console Displays

The console displays shown with each command are correct at the time of publication of this guide. Actual displays may vary due to improvements in code or configuration options.

Command-Line Help (?)

Entering a question mark (?) from the command line displays a list of possible completions (commands, keywords, or parameters), depending on where you are in the command.

Commands

Entering ? directly after the command line prompt displays a list of valid commands. The following example shows the commands available to a user logged on with the User password:

```
8265ATM> ?

Possible completions
        logout
        ping
        show
8265ATM>
```

Keywords and Parameters

Entering ? after all or part of an ATM command displays a list of valid keywords or parameters:

```
8265ATM> show security atm_address ?

Possible completions
        all
        any
    OR
        (slot)
8265ATM>
```

ATM Addresses

Entering ? in place of one of the bytes in an ATM address displays the number of the next byte to be entered:

```
8265ATM> set reachable_address 5.1 96 39.99.99.99.99.99.99.99.?

Possible completions
        (byte 9)
8265ATM>
```

Host Names

Entering ? in place of an IP address also lists the equivalent host names (see “SET HOST” on page 55) that have been defined.

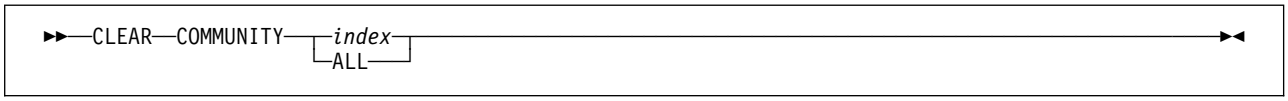
```
8265ATM> set device default_gateway ?

Possible completions
        ventoux
        grenoble
    OR
        (ip address)
8265ATM>
```

Chapter 2. ATM Commands

CLEAR COMMUNITY

Mode: Administrator
Code Card: IISP / PNNI

Use this command to delete a specific entry or all entries from the community table.



index Specifies the index number (`Index` on the SHOW COMMUNITY display) of the entry to be deleted from the table.

ALL Specifies that all entries will be deleted from the table.

Related Commands

SHOW COMMUNITY, SET COMMUNITY, SAVE ALL, REVERT ALL

Example

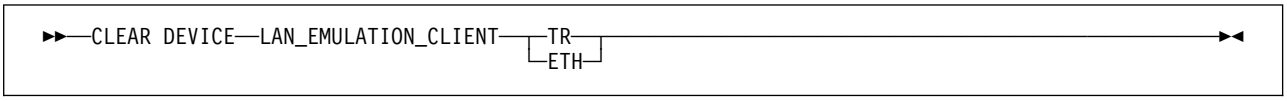
```
8265ATM> show community
Index Community_Name  IP_Address           Accesses
--------------------------------------------------------------------------------
   1  public          ***.***.***.***   Read -  Write -No trap
   2  tarqin          9.100.109.204     Read -No write-No trap
   3  admin           24.137.24.25      Read -  Write - Trap
   4  man             35.27.135.40      Read -  Write - Trap
6 entries empty.

8265ATM> clear community 3
Entry 3 cleared.

8265ATM> show community
Index Community_Name  IP_Address           Accesses
--------------------------------------------------------------------------------
   1  public          ***.***.***.***   Read -  Write -No trap
   2  tarqin          9.100.109.204     Read -No write-No trap
   3  man             35.27.135.40      Read -  Write - Trap
7 entries empty.
8265ATM>
```

CLEAR DEVICE LAN_EMULATION_CLIENT

Mode: Administrator
Code Card: IISP / PNNI

Use this command to clear all LEC (LAN emulation client) settings.

Clearing a LEC will reset the ATM subsystem.



TR Specifies that the Token Ring LEC should be cleared.

ETH Specifies that the Ethernet LEC should be cleared.

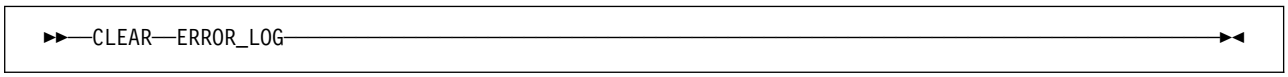
Example

```
8265ATM> clear device lan_emulation_client eth
This call will reset the ATM subsystem.
Are you sure ? (Y/N) Y
```

CLEAR ERROR_LOG

Mode: Administrator
Code Card: IISP / PNNI

Use this command to erase all entries stored in the ATM error log.



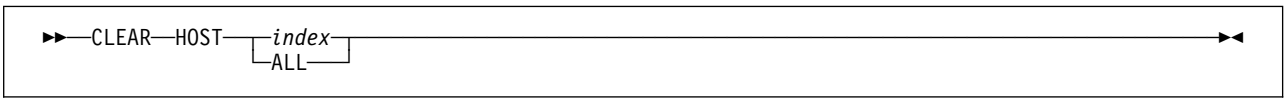
Example

```
8265ATM> clear error_log

Error log cleared.
8265ATM>
```

CLEAR HOST

Mode: Administrator
Code Card: IISP / PNNI

Use this command to erase a specific entry or all entries from the table of host names.



index Specifies the index number (`Index` on the SHOW HOST display) of the entry to be deleted from the table.

ALL Specifies that all host names are to be deleted from the table.

Related Commands

SHOW HOST, SET HOST, SAVE HOST, REVERT HOST

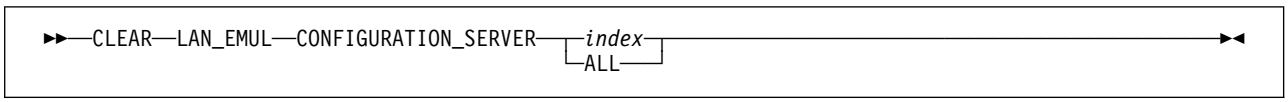
Example

```
8265ATM> show host
Index Host_Name                IP_Address
-------------------------------------------------------------------------------
   1  samson_eth               9.100.51.171
   2  samson_atm               9.100.87.19
   3  gatwick_eth              9.100.51.188
   4  gatwick_atm              9.100.87.32
   5  oedipe_eth               9.100.51.203
   6  temp                     9.100.109.203
14 entries empty.

8265ATM> clear host 6
Entry 6 cleared.

8265ATM> show host
Index Host_Name                IP_Address
-------------------------------------------------------------------------------
   1  samson_eth               9.100.51.171
   2  samson_atm               9.100.87.19
   3  gatwick_eth              9.100.51.188
   4  gatwick_atm              9.100.87.32
   5  oedipe_eth               9.100.51.203
15 entries empty.
8265ATM>
```

CLEAR LAN_EMUL CONFIGURATION_SERVER

Mode: Administrator
Code Card: IISP / PNNI

Use this command to delete a specific entry or all entries in the table of LECS (LAN emulation configuration server) addresses.



index Specifies the index number (`Index` on the SHOW LAN_EMUL CONFIGURATION_SERVER display) of the entry to be deleted from the table.

ALL Specifies that all host names are to be deleted from the table.

Related Commands

SHOW LAN_EMUL CONFIGURATION_SERVER, SET LAN_EMUL CONFIGURATION_SERVER, SAVE LAN_EMUL, REVERT LAN_EMUL

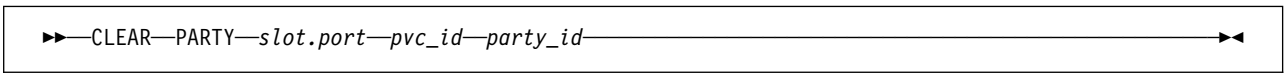
Example

```
8265ATM> show lan_emul configuration_server
Index            ATM address
--------------------------------------------------------------------------------
  1            39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.65.00.00
  2            39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.62.02.02
  3            39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.63.03.02
  4            39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.63.02.02
  5            39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.63.01.02

8265ATM> clear lan_emul configuration_server 5
Entry cleared

8265ATM> show lan_emul configuration_server
Index            ATM address
--------------------------------------------------------------------------------
  1            39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.65.00.00
  2            39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.62.02.02
  3            39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.63.03.02
  4            39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.63.02.02
8265ATM>
```

CLEAR PARTY

Mode: Administrator
Code Card: IISP / PNNI

This command deletes one leaf (party) of a point-to-multipoint PVC.



slot.port Specifies the local end of the PVC to be cleared.

pvc_id Specifies the identifier (`id=` on the SHOW PVC display) of the Base PVC to which the Party PVC belongs.

party_id Specifies the identifier (`id=` on the SHOW PVC display) of the Party PVC to be cleared.

Usage Notes

- Changes to PVC settings are saved to NVRAM automatically.

Related Commands

CLEAR PVC, SHOW PVC, SET PARTY_PVC, SET PVC

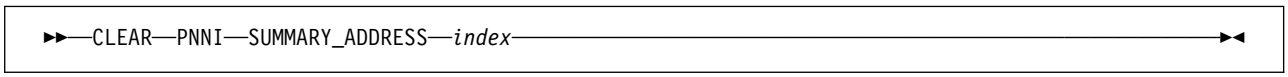
Example

```
8265ATM> show pvc all

--------------------------------------------------------------------------------
PVC:Port 16.02 (id=3,Primary,RB) PTM-PVC VP/VC=1/2
-> Party:(id=0) VP/VC=2/3 STATUS:Failed
   39.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99
-> Party:(id=5) VP/VC=3/6 STATUS:Not Ready
   45.AA.BB.CC.DD.EE.FF.00.00.88.88.DC.02.42.00.00.00.01.02.DC(port 1.02)

8265ATM>clear party 16.02 3 5
1 Party PVC(s) cleared.

8265ATM> show pvc all

--------------------------------------------------------------------------------
PVC:Port 16.02 (id=3,Primary,RB) PTM-PVC VP/VC=1/2
-> Party:(id=0) VP/VC=2/3 STATUS:Failed
   39.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99
8265ATM>
```

CLEAR PNNI SUMMARY_ADDRESS

Mode: Administrator
Code Card: PNNI only

This command deletes one of the summary addresses that have been defined for the local switch.



index Specifies the index number (`Entry` on the SHOW PNNI SUMMARY_ADDRESS display) of the summary address to be deleted.

Related Commands

SHOW PNNI SUMMARY_ADDRESS, SET PNNI NODE_0 SUMMARY_ADDRESS, SAVE PNNI, REVERT PNNI

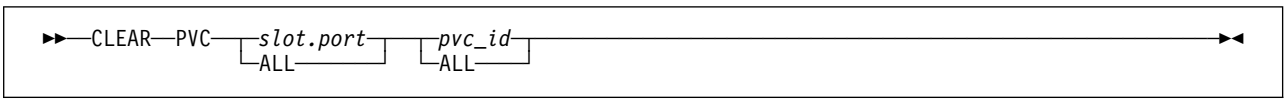
Example

```
8265ATM> show pnni summary_address
------ Internal Summary Addresses of Node 0------
  Entry 1-Prefix Length=104, non default, advertised :
    39.99.99.99.99.99.99.00.00.99.99.01.50.  .  .  .  .  .  .
  Entry 2-Prefix Length=104, non default, advertised :
    39.99.99.99.99.99.99.00.00.99.99.01.52.  .  .  .  .  .  .
17 empty entries

8265ATM> clear pnni summary_address 1
Rejected:
Entry refused, removes switch's reach to locally (ILMI configured) addresses.

8265ATM> clear pnni summary_address 2
To confirm: issue COMMIT after your last 'set pnni...' entry.
To cancel: issue UNCOMMIT.
8265ATM>
```

CLEAR PVC

Mode: Administrator
Code Card: IISP / PNNI

Use this command to delete a specific definition or all definitions of permanent virtual connections (PVCs). This command can only delete PVCs created on the local CPSW(that is, end points with **primary** role).



slot.port | ALL
Specifies the ports on which PVCs should be cleared.

slot.port Specifies the local end point of the PVC to be cleared.

ALL Specifies that PVCs on all ports are to be cleared.

pvc_id | ALL
Specifies, by identifier number, which PVCs should be cleared.

pvc_id Specifies the identifier (`id=` on the SHOW PVC display) of the PVC to be cleared.

ALL Specifies that all PVCs on the selected ports are to be cleared.

Usage Notes

- Changes to PVC settings are saved to NVRAM automatically.

Related Commands

CLEAR PARTY, SHOW PVC, SET PVC, SET PARTY_PVC

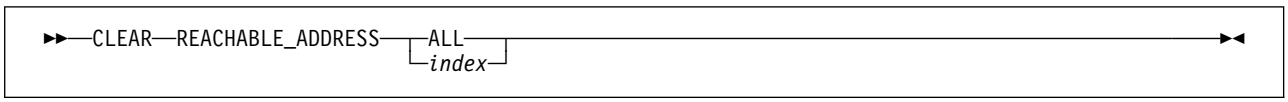
Example

```
8265ATM> show pvc all

--------------------------------------------------------------------------------
PVC:Port 16.02 (id=3,Primary,RB) PTM-PVC VP/VC=1/2
-> Party:(id=0) VP/VC=2/3 STATUS:Failed
   39.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99

8265ATM> clear pvc 16.2 3
PVC cleared.
8265ATM>
```

CLEAR REACHABLE_ADDRESS

Mode: Administrator
Code Card: IISP / PNNI

This command removes all ATM addresses or a selected ATM address from the list of reachable addresses for the local switch.



ALL Specifies that all ATM addresses be deleted from the list of reachable addresses.

index Specifies the index number (`Idx` on the SHOW REACHABLE_ADDRESS display) of the reachable address to be deleted.

Usage Notes

- Addresses listed as "`Dyn`" on the SHOW REACHABLE_ADDRESS display have been created dynamically and cannot be deleted.

Related Commands

SHOW REACHABLE_ADDRESS, SET REACHABLE_ADDRESS, SAVE ALL, REVERT ALL

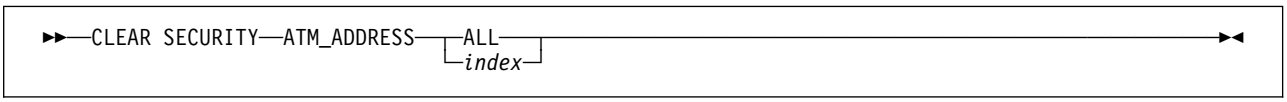
Example

```
8265ATM> show reachable_address all
Port  Len Address                                                 Active Idx VPI
-------------------------------------------------------------------------------
 4.02  24 39.99.78.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .   N   1  -
 4.03 152 39.99.99.99.99.99.99.00.00.99.99.01.50.08.00.5A.99.02.BE Y Dyn   0
15.03 152 39.99.99.99.99.99.99.00.00.99.99.01.50.08.00.5A.99.02.A1 Y Dyn   0

8265ATM> clear reachable_address 1
Entry cleared
8265ATM>
```

CLEAR SECURITY ATM_ADDRESS

Mode: Administrator
Code Card: IISP / PNNI

This command removes all or a selected ATM address entries from the access control address table.



ALL Specifies that all entries be deleted from the access control address table.

index Specifies the index number ("index" on the SHOW SECURITY ATM_ADDRESS display) of the entry to be deleted.

Related Commands

SHOW SECURITY ATM_ADDRESS, SET SECURITY ATM_ADDRESS, SAVE SECURITY, REVERT SECURITY

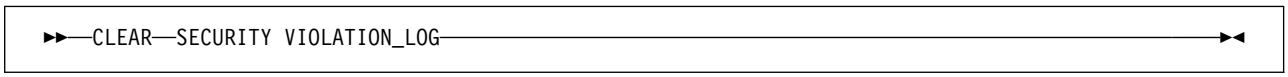
Example

```
8265ATM> show security atm_address all
index port    ATM_ADDRESS
-------------------------------------------------------------------------------
 1   05.02  00.00.00.00.00.00.00.00.00.00.00.00.08.00.5A.EE.EE.EE
 2   00.00  00.00.00.00.00.00.00.00.00.00.00.00.08.00.5A.EE.EE.EF
 3   05.01  39.99.99.99.99.99.99.00.00.01.57.08.00.5A.AA.AA.AA.AA.AA
 4   00.00  39.99.99.99.99.99.99.00.00.01.57.08.00.5A.AA.AA.AA.AA.AB
 5   05.03  39.99.99.99.99.99.99.00.00.99.99.58.58.00.80.05.A9.92.8D

8265ATM> clear security atm_address 1

Clear completed.
8265ATM>
```

CLEAR SECURITY VIOLATION_LOG

Mode: Administrator
Code Card: IISP / PNNI

Use this command to erase all entries stored in the security violation log.



Related Commands

SHOW SECURITY VIOLATION_LOG, SET SECURITY LOG, SAVE SECURITY, REVERT SECURITY

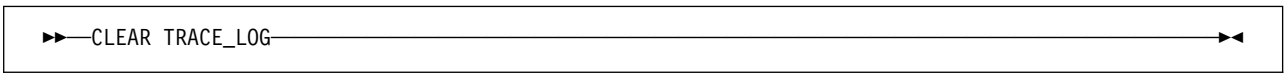
Example

```
8265ATM> clear security violation_log

Clear completed.
8265ATM>
```

CLEAR TRACE_LOG

Mode: Administrator
Code Card: IISP / PNNI

Use this command to clear the main trace log before restarting a new trace.



Related Commands

SHOW TRACE, SET TRACE, SAVE ALL, REVERT ALL

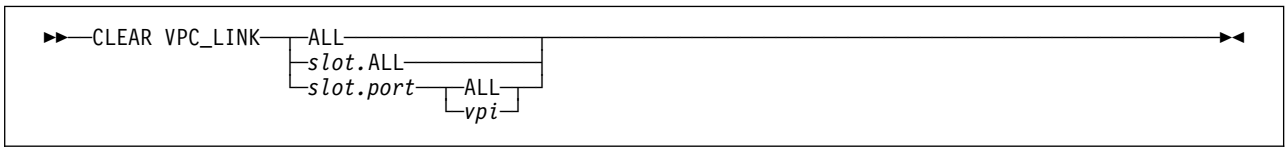
Example

```
8265ATM> clear trace_log
Trace log cleared.
8265ATM>
```

CLEAR VPC_LINK

Mode: Administrator
Code Card: IISP / PNNI

This command removes all or selected VPC links that have been defined for the local switch.



ALL Clears all VPC links defined on the ATM subsystem.

slot.ALL Clears VPC links from all ports on the selected slot.

slot.port Clears VPC links on the selected port.

- **ALL** Clears all VPIs on the port.
- **vpi** Clears the selected VPI on the port.

Related Commands

SHOW VPC_LINK, SET VPC_LINK, SAVE MODULE_PORT, REVERT MODULE_PORT

Example

```
8265ATM> show vpc_link all

       VPI :Type  Mode      Status
-------------------------------------------------------------------------------
 1.01     0: UNI enable  (Pri) UP
 1.02     0:PNNI enable  (Pri) UP
 1.02     3:IISP enable  DOWN:Port is NNI
 1.03     0:PNNI enable  (Pri) DOWN:Establishing
 1.04     0: UNI enable  (Pri) UP
 4.01     0: UNI enable  (Pri) DOWN:Not in service
8265ATM> clear vpc_link 1.2 3

1 entries cleared
8265ATM>
```

COMMIT PNNI

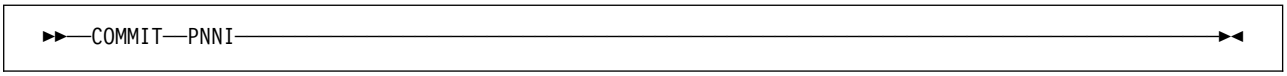
Mode: Administrator
Code Card: IISP / PNNI

The COMMIT PNNI command transfers changed parameters from the Future PNNI Configuration to the Active PNNI Configuration:

- **Non-critical** changes are transferred directly to the Active Configuration.

  If non-critical changes are not saved to Non-Volatile Storage (NVS) using the SAVE PNNI command, they will be lost at the next system reset.

- **Critical** changes, which require a system reset to be activated, are first placed into Non-Volatile Storage (NVS) and then the system is reset.



Related Commands

SHOW FUTURE_PNNI CONFIGURATION_STATE, SET PNNI commands, SAVE PNNI, REVERT PNNI, UNCOMMIT PNNI

Example

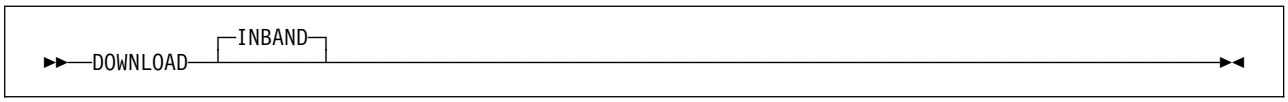
```
8265ATM> commit pnni
Non-pnni configuration updates will be lost when COMMIT issued.
Suggestion: issue SAVE ALL before issuing COMMIT..
Are you sure ? (Y/N) N
8265ATM>
```

DOWNLOAD

Mode: Administrator
Code Card: IISP / PNNI

Use this command to download any of the following file types from a server:

File Type	Description
BOOT	IBM microcode updates to the Boot Flash EEPROM on the CPSW.
OPERATIONAL	IBM microcode updates to the Operational Flash EEPROM on the PCMCIA card.
FPGA	IBM picocode updates to the FPGA Flash EEPROMs on the CPSW and ATM media modules.
SECURITY_CONFIGURATION	A saved security settings file from a server.
CONFIGURATION	A saved switch configuration file from a server.



Usage Notes

- The server must be connected to the CPSW over an IP network (or over a SLIP configuration console connection).
- Before using DOWNLOAD, you must define:
  - The IP address of the server using the SET TFTP SERVER_IP_ADDRESS command.
  - The path and filename of the file to be downloaded using the SET TFTP FILE_NAME command.
  - The type of file to be downloaded using SET TFTP FILE_TYPE command.
- DOWNLOAD by itself does not disrupt normal operation of the ATM subsystem. However, ATM subsystem operation **is** interrupted when you enter the SWAP command to activate the downloaded code.
- After downloading a new OPERATIONAL or BOOT microcode update, you must use the SWAP command (see “SWAP MICROCODE” on page 169) to activate the new code version. DOWNLOAD by itself does not automatically activate the new code version at the next reset.
- If you are downloading software from a server running AIX, you must first configure AIX for TFTP before you enter the DOWNLOAD command. For instructions on how to do this, see the *8265 User's Guide*.
- The access control address table will also be uploaded automatically whenever you use the SAVE SECURITY or SAVE ALL commands. However, using the DOWNLOAD command to download the access control address table does not affect the security settings that are stored in NVRAM.
- When using DOWNLOAD to download the access control address table, the SECURITY FILE_NAME and SECURITY IP_ADDRESS settings are ignored.
- Before downloading a saved CONFIGURATION file, be sure that the code levels of the CPSW operational microcode are the same on both the original source CPSW and the target CPSW. Downloading a configuration that was uploaded from a switch with a different code level may produce unpredictable results.

Example

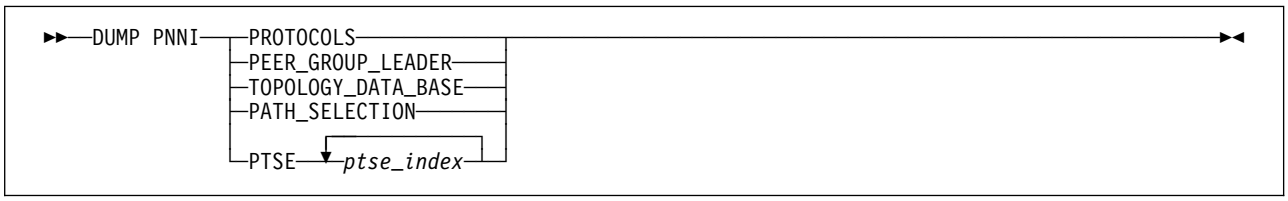
The following example shows the steps required for downloading the access control address table (access control server running OS/2):

```
8265ATM>set tftp server_ip_address 122.38.82.109

8265ATM>set tftp file_name
Enter file name:  c:\sec\address.tab

File name set.
8265ATM>set tftp file_type security

File type set.
8265ATM> download

Download successful.
8265ATM>
```

DUMP PNNI

Mode: Administrator
Code Card: PNNI only

This command places a listing of PNNI settings into the dump buffer.



PROTOCOLS
Dumps all information related to PNNI protocol: architectural variables, control blocks, and so on. (*Requires a formatter to view the dump*.)

PEER_GROUP_LEADER
Dumps all information related to the peer group leader election process. (*Requires a formatter to view the dump*.)

TOPOLOGY_DATA_BASE
Dumps all PTSE headers (including the index number used to reference each PTSE).

PATH_SELECTION
Dumps a view of the network from the point of view of the local switch.

PTSE Dumps a complete listing of the PTSE selected by *ptse_index*.

ptse_index
Specifies the index numbers ("`index`" on the SHOW PNNI PTSE display or in the TOPOLOGY_DATA_BASE dump) of the PTSEs to be dumped.

Usage Notes

- You can upload the contents of the dump buffer to a server using the UPLOAD command (with TFTP FILE_TYPE set to DUMP).

Related Commands

SHOW PNNI PTSE, SET PNNI commands, SAVE PNNI, REVERT PNNI

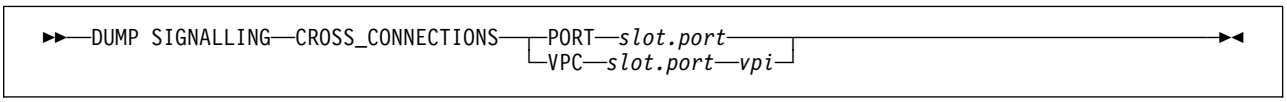
Example

```
8265ATM> dump pnni ptse 10 20
Dump started
8265ATM>
```

DUMP SIGNALLING CROSS_CONNECTIONS

Mode: Administrator
Code Card: IISP / PNNI

This command places a listing of all cross-connections for a selected port or VPC into the dump buffer.



slot.port Specifies the port whose cross-connections are to be dumped.

vpi Specifies the VPI (on the selected port) whose cross-connections are to be dumped.

Usage Notes

- You can upload the contents of the dump buffer to a server using the UPLOAD INBAND command (with TFTP FILE_TYPE set to DUMP).

Related Commands

SHOW SIGNALLING CROSS_CONNECTIONS, SET PORT, SET VPC_LINK, SAVE MODULE_PORT, REVERT MODULE_PORT

Example

```
8265ATM> dump signalling cross_connections port 1.1
Dump started
8265ATM>
```

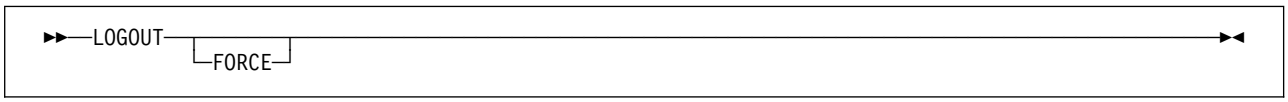
Sample Dump

```
Dump of cross connections on port 1.1
In: slot.port vpi.vci  type  Out: slot.port vpi.vci  type      Conn  Cat

       1.1      1.      PVP          1.2      2.      SVP       P2P  NRTVBR
       1.1      3.      SVP          1.2      4.      PVP       P2M  NRTVBR
       1.1      5.      SVP          1.2      6.      SVP       P2P  NRTVBR
       1.1      7.      SVP          1.2      8.      SVP       P2M  NRTVBR
       1.1      9.      SVP          1.2     10.      SVP       P2P  NRTVBR
       1.1     10.32    PVC          1.2     10.33    PVC       P2P  NRTVBR
       1.1     10.34    PVC          1.2     10.35    SVC       P2M  CBR
       1.1     10.36    SVC          1.2     10.37    PVC       P2P  UBR
       1.1     10.38    SVC          1.2     10.39    SVC       P2P  NRTVBR
           commands
       1.1     40.      SVP          1.2     41.      SVP       P2M  NRTVBR
       1.1     42.      SVP          1.2     43.      SVP       P2P  NRTVBR
       1.1     44.      SVP          1.2     45.      SVP       P2M  NRTVBR
       1.1     46.      SVP          1.2     47.      SVP       P2P  NRTVBR
       1.1     48.      SVP          1.2     49.      SVP       P2M  NRTVBR

Total number of cross_connections = 62
```

LOGOUT

Mode: User / Administrator
Code Card: IISP / PNNI

Use this command to end your configuration session (local or remote).



FORCE Allows you to log off and keep the configuration changes you have made.

Usage Notes

- If you are logged on to a remote CPSWand enter the LOGOUT command, the console connection to the remote device is ended and you are reconnected to the local CPSW.

  If a modem is connected to the console and if you have enabled the Hangup function using the SET TERMINAL command, the modem is disconnected.
- If you make configuration changes and log off without specifying the `FORCE` parameter, the LOGOUT command will be rejected. In order to log off, you must then either permanently save your changes (with the SAVE command) or restore them (with the REVERT command). The `FORCE` parameter allows you to log off and keep your changes until you reboot or reset the CPSW module.

Examples

The following is an example of how to log off from a **local** CPSW configuration session and the returned reply:

```
8265ATM> logout

Bye
```

To log on again, redisplay the password prompt by pressing Enter.

```
Password:
```

The following is an example of how to log off from a **remote** session and the returned reply:

```
ATM2> logout

Bye
Remote session completed.
```

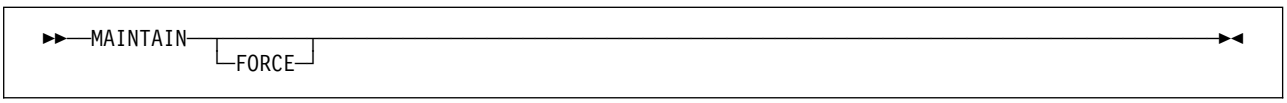
MAINTAIN

Mode: Administrator
Code Card: IISP / PNNI

Use this command to change CPSW operation to Maintenance mode.

Normally, the CPSW enters Maintenance mode automatically when the diagnostics routines determine that normal operation is not possible. Maintenance mode provides a minimal number of commands that may be used to return the switch to normal operation. (See Appendix B, “Maintenance Mode Commands” on page 193 for further information.)

Maintenance mode commands should only be used by very experienced users, and only in exceptional circumstances.



FORCE Allows you to change to Maintenance mode and discard any configuration changes made during your current session. To save the changes, you must enter the SAVE command before entering MAINTAIN.

Usage Notes

- You can run this command only if you logged on from a local CPSW session via the RS-232 Console port. You cannot enter the MAINTAIN command from a remote session started with the TELNET command.
- Changing to Maintenance mode interrupts ATM traffic and statistics, and resets the CPSW. Therefore, before entering the MAINTAIN command, you should stop all ATM traffic in the switch.
- After entering the MAINTAIN command, you are prompted to confirm.
- When the CPSW is in Maintenance mode, the console prompt changes to >> and the System Status LCD displays the message: "MAINTENANCE MODE ENTERED UPON USER REQUEST".
- You quit Maintenance mode by:
  - Entering the BOOT command. This resets the ATM subsystem.
  - Entering the DOWNLOAD OUT_OF_BAND BOOT command. This operation loads the new boot program and executes it immediately.

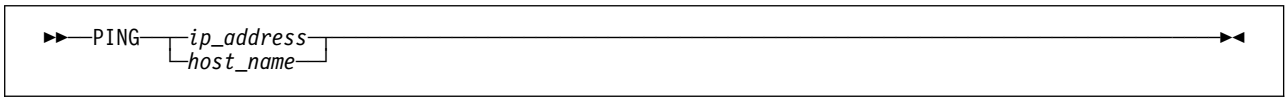
Example

```
8265ATM> maintain

You are about to reset the ATM subsystem for maintenance.
Are you sure ? (Y/N) Y

>>
```

PING

Mode: User / Administrator
Code Card: IISP / PNNI

Use this command to verify if an IP device is active and reachable. The target device may be reachable over a LAN Emulation Over ATM or Classical IP Over ATM network. The command sends packets to the device to be "pinged" and requests the device to send back the same packets. PING loops continuously until the CTRL-C keys are pressed.



ip_address
Specifies the IP address in the format *n.n.n.n*, where *n* is 0-255.

host_name
Specifies the name of a host as defined with the SET HOST command.

Usage Notes

- If the target device is reachable via a Classical IP over ATM subnetwork as defined in RFC1577 (either directly attached or attached behind a router), the 8265 switch must be configured with the ATM address of the ARP server (using the SET DEVICE ARP_SERVER command).
- In addition, if the target device is reachable via a router, the 8265 switch must be configured with the IP address of the default gateway (using the SET DEVICE DEFAULT_GATEWAY command)

Example

```
8265ATM> ping newyork
Starting ping (hit CTRL-C to stop) ...
Ping 9.100.86.131: 1 packets sent, 1 received
Ping 9.100.86.131: 2 packets sent, 2 received
Ping 9.100.86.131: 3 packets sent, 3 received        [CTRL-C]

8265ATM>
```

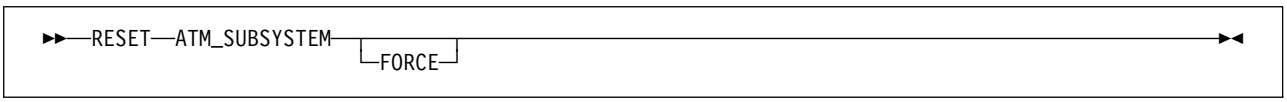
RESET ATM_SUBSYSTEM

Mode: Administrator
Code Card: IISP / PNNI

This command resets the CPSW module and all ATM media modules in the switch, with the following results:

- All ATM traffic on the switch is stopped and all ATM hardware (CPSW and ATM media modules) is reset.
- CPSW software is rebooted with the operational code in the flash EEPROM.
- The contents of the dumps and trace files are cleared. The error log is not erased.

After all ATM modules are reset, press Enter to redisplay the password prompt. Then enter your password to continue.



FORCE Resets all ATM hardware and discards any configuration changes made during the current session.

Usage Notes

- If you use the FORCE parameter, any configuration changes made in your current session that have not been saved will be lost. To permanently save these changes, use the SAVE command before you enter RESET ATM_SUBSYSTEM.

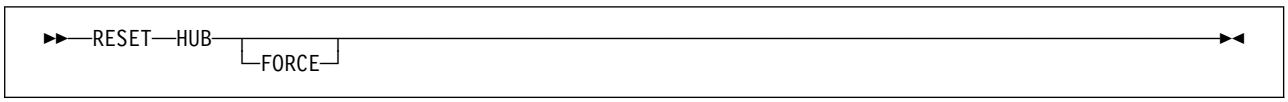
Example

```
8265ATM> reset atm_subsystem
You are about to reset the ATM subsystem.
Are you sure ? (Y/N) Y
```

RESET HUB

Mode: Administrator
Code Card: IISP / PNNI

Use this command to reset all hardware and software in the hub. The switch is reset to its most recently saved configuration.



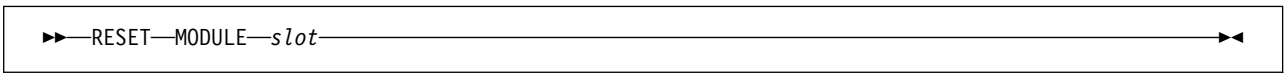
Example

```
8265ATM> reset hub
You are about to reset the ATM subsystem.
Are you sure ? (Y/N) Y
8265ATM>
```

RESET MODULE

Mode: Administrator
Code Card: IISP / PNNI

Use this command to perform a hardware reset of a module, or if present, the standby controller (RCTL).



slot Slot number where the module is installed.

Usage Notes

- Entering RESET MODULE gives the same result as pressing the ATM Reset button on an ATM media module. The module is reset to its currently configured settings.
- To reset the CPSW module in slots 9 and 10, or 11 and 12, use the RESET ATM_SUBSYSTEM command.
- To reset the active RCTL module (slot 18 or 19), use the RESET HUB command.

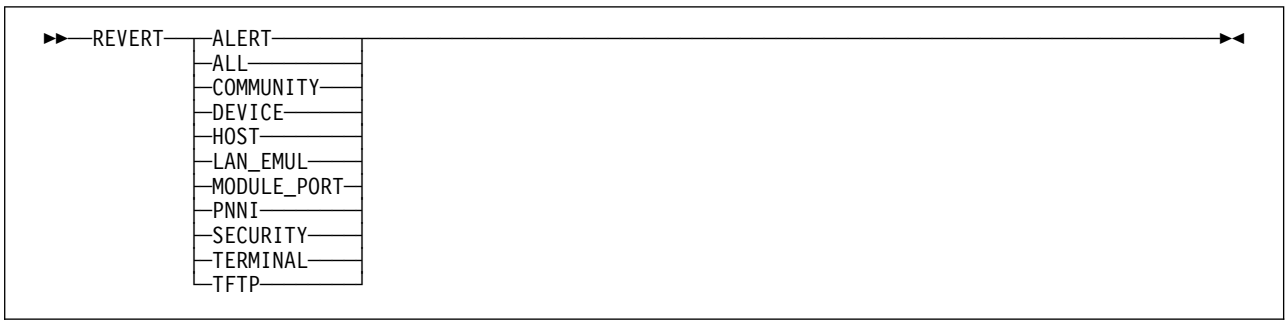
Example

```
8265ATM> reset module 2
Reset started.
8265ATM>
```

REVERT

Mode: Administrator
Code Card: IISP / PNNI

Use this command to cancel any configuration changes made to your current session with the SET commands. The settings in NVRAM (non-volatile RAM) become the current settings.



ALERT Restores the last saved values for SET ALERT settings.

ALL Restores the last saved values for all SET command settings **and resets the ATM subsystem**.

COMMUNITY
Restores the last saved values for SET COMMUNITY settings.

DEVICE Restores the last saved values for all SET DEVICE settings.

HOST Restores the last saved values for all SET HOST names.

LAN_EMUL
Restores the last saved values for all SET LAN_EMUL settings.

MODULE_PORT
Restores the last saved values for all SET MODULE and SET PORT settings **and resets the ATM subsystem**.

PNNI Restores the last saved values for all SET PNNI settings.

SECURITY
Restores the last saved values for all SET SECURITY settings.

TERMINAL
Restores the last saved values for all SET TERMINAL settings.

TFTP Restores the last saved values for all SET TFTP settings.

Usage Notes

- The REVERT DEVICE command does not reset the ATM subsystem.
- The REVERT LAN_EMUL command cancels the LES configuration if the corresponding server has been stopped before entering the command.

Example

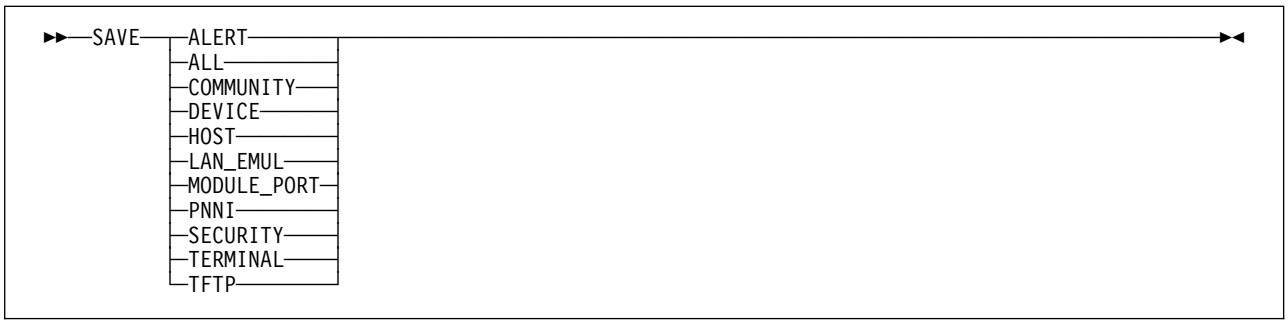
REVERT

```
8265ATM> revert module_port
This revert will reset the ATM subsystem.
Are you sure ? (Y/N) Y
```

SAVE

Mode: Administrator
Code Card: IISP / PNNI

Use this command to permanently store any configuration changes made to your current session with SET commands. These changes are saved in NVRAM (nonvolatile RAM) and are reloaded at the next RESET or REVERT.



ALERT Saves the currently active values for SET ALERT settings.

ALL Saves the currently active values for all 8265 switch settings.

COMMUNITY
Saves the currently active values for SET COMMUNITY settings.

DEVICE Saves the currently active values for all SET DEVICE settings.

HOST Saves the currently active values for all SET HOST names.

LAN_EMUL
Saves the currently active values for all SET LAN_EMUL settings.

MODULE_PORT
Saves the currently active values for all SET MODULE, SET PORT, and SET VPC_LINK settings.

PNNI Saves the currently active values for all SET PNNI settings.

SECURITY
Saves the currently active values for all SET SECURITY settings.

TERMINAL
Saves the currently active values for all SET TERMINAL settings.

TFTP Saves the currently active values for all SET TFTP settings.

Usage Notes

- The configuration changes you make using SET commands are put into effect immediately, but are not permanently saved.
- If you do not enter the SAVE command after changing configuration settings, the changes are lost the next time the ATM media module or CPSW is rebooted or reset.

Example

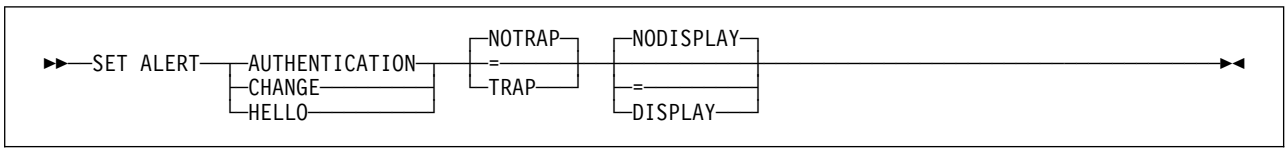
SAVE

```
8265ATM> save pnni
8265ATM>
```

SET ALERT

Mode: Administrator
Code Card: IISP / PNNI

Use this command to enable and disable the sending of alert messages from the CPSW to the configured trap receiver (for example, an SNMP workstation).



AUTHENTICATION | CHANGE | HELLO
Specifies the type of alert settings to set.

NOTRAP | TRAP | =
Specifies whether or not a trap is sent for the specified type of alert (= to keep current setting). Default is NOTRAP.

NODISPLAY | DISPLAY | =
Specifies whether or not the alert is displayed at the configuration console(= to keep current setting). Default is NODISPLAY.

Related Commands

SHOW ALERT, SAVE ALL, REVERT ALL

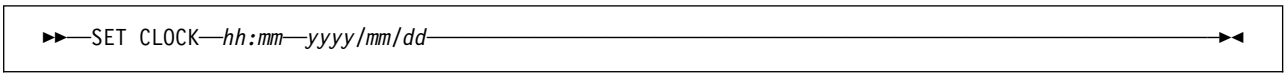
Example

The following directs a previously enabled Change trap to be displayed on the configuration console.

```
8265ATM> show alert
Alert AUTHENTICATION set to NOTRAP NODISPLAY
Alert     CHANGE     set to NOTRAP NODISPLAY
Alert     HELLO      set to NOTRAP NODISPLAY

8265ATM> set alert hello = display
Alert set

8265ATM> show alert
Alert AUTHENTICATION set to NOTRAP NODISPLAY
Alert     CHANGE     set to NOTRAP NODISPLAY
Alert     HELLO      set to NOTRAP  DISPLAY
8265ATM>
```

SET CLOCK

Mode: Administrator
Code Card: IISP / PNNI



hh:mm Hour and minute.

yyyy/mm/dd
Year, month, and day.

Usage Notes

- Use this command to set the time for the internal clock of the CPSW. You need to set the time only once, when you install the module in the switch. The clock has its own battery and will continue to operate even in case of a power failure in the switch.
- The time you enter with SET CLOCK is automatically saved and used as the starting time for the CPSW. It is not necessary to save the setting with SAVE.

Related Commands

SHOW CLOCK

Example

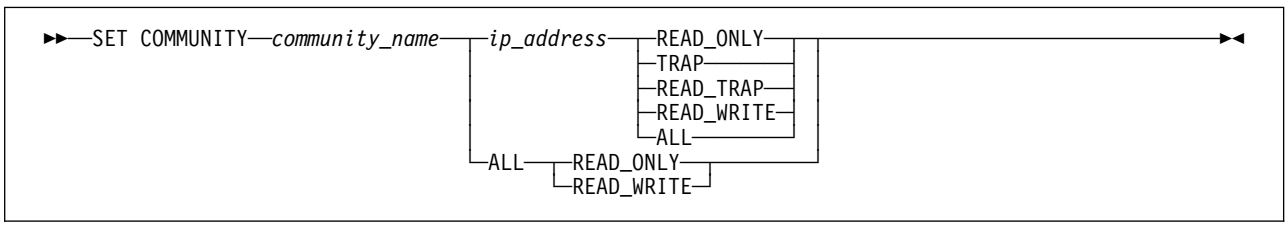
```
8265ATM> set clock 08:30 1997/12/24
Clock set.
8265ATM>
```

SET COMMUNITY

Mode: Administrator
Code Card: IISP / PNNI

The SET COMMUNITY command enables you to configure a management station to:

- View and update ATM MIB variables for the 8265 switch
- Receive traps from the CPSW module.



community_name
Name of a community (up to 15 alphanumeric characters, case-sensitive)

ip_address | ALL

ip_address
Specifies the IP address of one management station in the format *n.n.n.n*, where *n* is a number between 0 and 255.

ALL Specifies that all SNMP management stations will be assigned the same access rights (READ_ONLY or READ_WRITE only).

READ_ONLY
CPSW configuration parameters can be displayed by the station you specify.

TRAP CPSW alerts will be sent to the station whose IP address you specify.

READ_TRAP
CPSW configuration parameters can be displayed and alerts will be set to the station you specify.

READ_WRITE
CPSW configuration parameters can be displayed and modified by the station you specify.

ALL Read-write access and trap receiver status is assigned to the station you specify.

Usage Notes

- Management stations communicate with the 8265 switch via the SNMP protocol. Stations may be reached via a Classical IP Over ATM subnetwork.
- When a management station is reachable via a Classical IP Over ATM subnetwork, the ATM address of the ARP server must be configured using SET DEVICE ARP_SERVER.

  In addition, if the management device is reachable via a router, the CPSW must be configured with the IP address of the default gateway (using SET DEVICE DEFAULT_GATEWAY).

Related Commands

SHOW COMMUNITY, CLEAR COMMUNITY, SAVE COMMUNITY, REVERT COMMUNITY

Example

The following example creates a community called `Admin` for the specified CPSW management station and assigns read-write access and trap receiver status to the station.

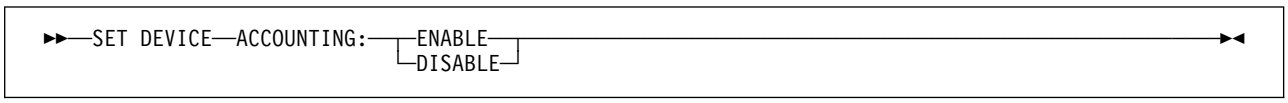
```
8265ATM> set community Admin 2.13.34.24 all
Entry set.

8265ATM> show community
Index Community_Name  IP_Address            Accesses
------------------------------------------------------------------------------
   1  Admin           2.13.34.24        Read -  Write - Trap
9 entries empty.
8265ATM>
```

SET DEVICE ACCOUNTING

Mode: Administrator
Code Card: IISP / PNNI

Use this command to enable and disable counters per connection.

This command resets the ATM subsystem.



ENABLE | DISABLE
Enables and disables counters per connection.

Related Commands

SHOW DEVICE, SAVE DEVICE, REVERT DEVICE

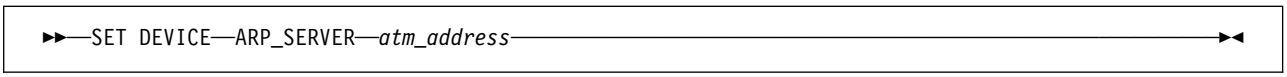
Example

```
8265ATM> set device accounting:disable
This call will reset the ATM subsystem.
Are you sure ? (Y/N) Y
```

SET DEVICE ARP_SERVER

Mode: Administrator
Code Card: IISP / PNNI

The SET DEVICE ARP_SERVER command defines the ATM address of an ARP (Address Resolution Protocol) server. The ARP server is used in a Classical IP over ATM network to map IP addresses to ATM addresses.



atm_address
Specifies the ATM address of the ARP server.

Note: Pressing '?' (help) while entering the bytes of an ATM address displays a prompt indicating the number of the next byte to be entered.

Related Commands

SHOW DEVICE, SAVE DEVICE, REVERT DEVICE

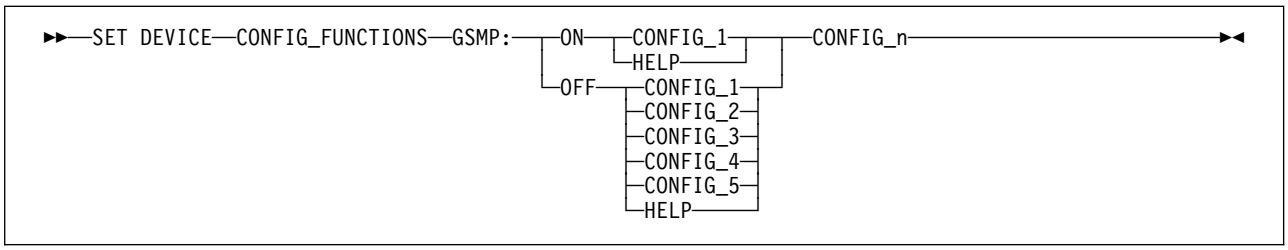
Example

```
8265ATM> set device arp_server 39.11.FF.22.99.99.99.00.00.00.00.01.49.11.11.11.
11.11.11.49
Device arp_server changed.
8265ATM>
```

SET DEVICE CONFIG_FUNCTIONS

Mode: Administrator
Code Card: IISP / PNNI

This command adjusts memory allocation for Q2931 branches and parties on the local CPSW, in order to optimize the performance of point-to-point and point-to-multipoint PVCs. **This command resets the ATM subsystem.**



ON (To be supported in a future release.)

CONFIG_1
Selects the predefined Q2931 memory configuration for GSMP.

HELP Displays the values in the predefined memory configuration.

OFF

CONFIG_n
Selects one of the the predefined Q2931 memory configurations (CONFIG_1 through CONFIG_5).

HELP Displays a table of the available predefined memory configurations, with their corresponding labels.

Related Commands

SHOW DEVICE, SAVE DEVICE, REVERT DEVICE

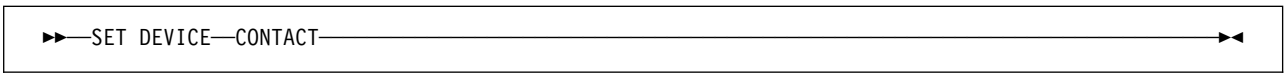
Example

```
8265ATM> set device config_functions gsmp:off help
Here are possible values :
  GSMP  !      Q2931     !
Branches!Branches!Parties! Comments
-------------------------------------------------------------------------------
    OFF !  32000 !     2 ! Config 1
    OFF !  30000 !  2000 ! Config 2
    OFF !  28000 !  4000 ! Config 3
    OFF !  26000 !  6000 ! Config 4
    OFF !  24000 !  8000 ! Config 5

8265ATM> set device config_functions gsmp:off config_2
GSMP : OFF
Q2931 : 2000 parties and 30000 branches

Accepting this configuration will reset the ATM subsystem.
Are you sure ? (Y/N) Y
```

SET DEVICE CONTACT

Mode: Administrator
Code Card: IISP / PNNI

Use this command to enter information (up to 78 alphanumeric characters) on qualified service personnel, such as name, location, company, and telephone number. After entering the command, you are prompted to enter the location information.



Related Commands

SHOW DEVICE, SAVE DEVICE, REVERT DEVICE

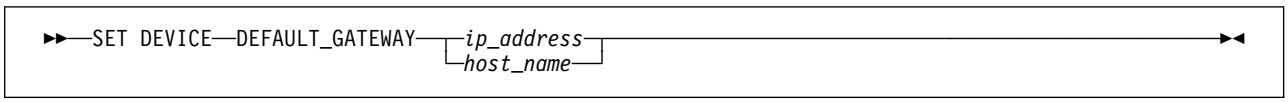
Example

```
8265ATM> set device contact
Enter text:
Network Manager, IBM Engineering Support, tel: 692-4444
8265ATM>
```

SET DEVICE DEFAULT_GATEWAY

Mode: Administrator
Code Card: IISP / PNNI

This command sets the IP address of a router that will be used to receive IP packets from, and forward IP packets to, stations that are not connected to the same network as the local 8265 switch.



ip_address
IP address of the router in the format *n.n.n.n*, where *n* is a number between 0 and 255.

host_name
The host name (defined with the SET HOST command) of the router.

Note: Pressing '?' (help) for this parameter displays a list of available host names.

Related Commands

SHOW DEVICE, SAVE DEVICE, REVERT DEVICE

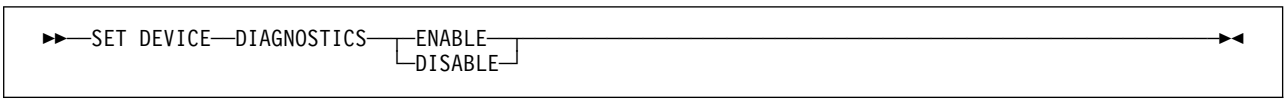
Example

```
8265ATM> set device default_gateway 195.44.45.26
Default gateway set.
8265ATM>
```

SET DEVICE DIAGNOSTICS

Mode: Administrator
Code Card: IISP / PNNI

Use this command to enable and disable diagnostics each time the CPSWstarts up or is reset. ATM diagnostics are enabled by default so that they will run the first time you power ON the 8265 switch.



ENABLE Enables diagnostics.

DISABLE Disables diagnostics.

Usage Notes

- Disabling diagnostics reduces the time it takes for the CPSW to reboot, but the 8265 switch is not tested to verify that it is operational.

Related Commands

SHOW DEVICE, SAVE DEVICE, REVERT DEVICE

Example

```
8265ATM> set device diagnostics enable
8265ATM>
```

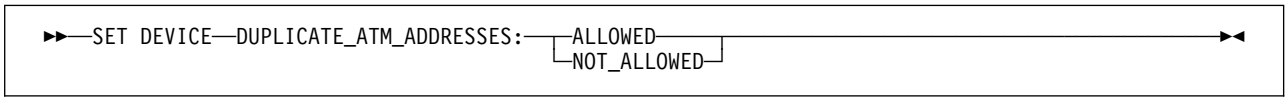
SET DEVICE DUPLICATE_ATM_ADDRESSES

Mode: Administrator
Code Card: IISP / PNNI

Use this command to enable or disable the acceptance of duplicate ATM addresses registered from ILMI.

This command resets the ATM subsystem.

Use of this command depends on the network configuration and requirements. For example, disabling duplicate ATM addresses may be useful for backup servers, and enabling duplicate ATM addresses may be useful for load balancing between switches.



ALLOWED
Allows duplicate ATM address from ILMI to be accepted by the local switch.

NOT_ALLOWED
Rejects duplicate ATM addresses from ILMI.

Related Commands

SHOW DEVICE, SAVE DEVICE, REVERT DEVICE

Example

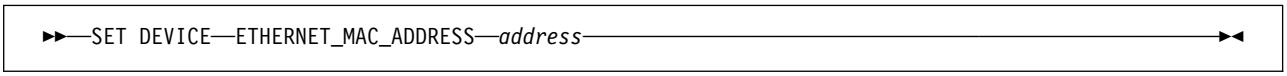
```
8265ATM> set device duplicate_atm_addresses:allowed
This call will reset the ATM subsystem.
Are you sure? (Y/N) Y
```

SET DEVICE ETHERNET_MAC_ADDRESS

Mode: Administrator
Code Card: IISP / PNNI

This command replaces the Ethernet port BIA (burned-in address) with an LAA (locally administered address). To restore the BIA, set the LAA address to '000000000000'.

This command resets the ATM subsystem.



address Specifies the 6-byte hexadecimal address (no spaces between bytes).

Related Commands

SHOW DEVICE, SAVE DEVICE, REVERT DEVICE

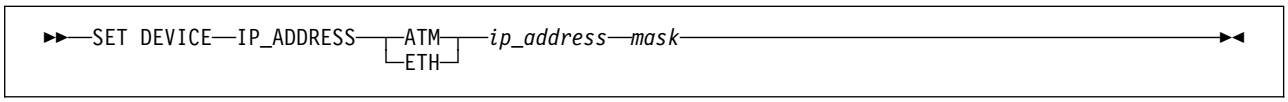
Example

```
8265ATM> set device ethernet_mac_address 0e0000000003
This call will reset the ATM subsystem and you have unsaved changes.
Are you sure ? (Y/N)
```

SET DEVICE IP_ADDRESS

Mode: Administrator
Code Card: IISP / PNNI

Use this command to assign an Internet Protocol (IP) address to the ATM Control Point and define the subnetwork mask used for your class of Internet devices. An IP address, unique within the IP network must be defined for each ATM Control Point.



ATM Assigns the IP address to the ATM Control Point.

ETH Assigns the IP address to the Ethernet port on the CPSW.

ip_address
Specifies a class A, B, or C IP address in format *n.n.n.n*, where *n* is a number between 0 and 255.

mask Specifies the subnetwork mask (format: 4 bytes in hexadecimal).

Usage Notes

- The subnetwork mask is the group of common characters used by all network nodes on the left side of the IP address (Network ID); for example, `123.32.044` in the IP address `123.32.044.165`.
- You cannot change the IP address of the ATM Control Pointusing SNMP.
- If the ATM Control Point is accessed via a router by a Classical IP over ATM subnetwork, the ATM address of the ARP server must also be configured (using SET DEVICE ARP_SERVER).
- If the ATM Control Point is accessed via a bridge or router by a LAN emulation subnetwork, the switch IP address and subnetwork mask must be configured via the SET DEVICE LAN_EMULATION CLIENT command.

Related Commands

SHOW DEVICE, SAVE DEVICE, REVERT DEVICE

Examples

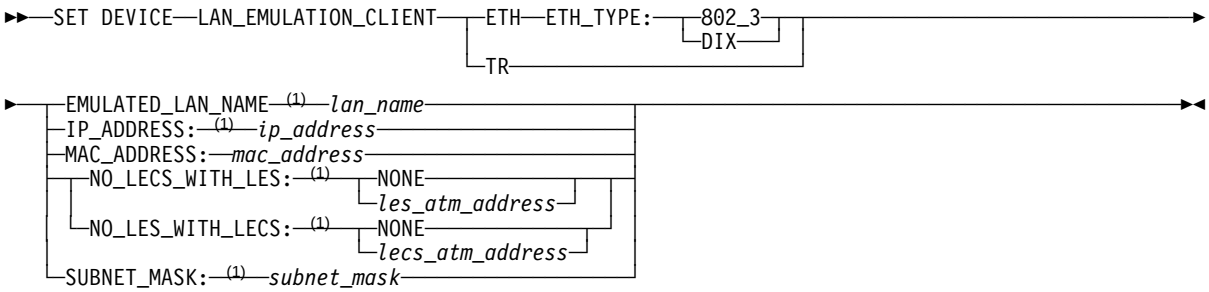
```
8265ATM> set device ip_address atm  195.44.45.48  FF.FF.FF.00
IP address and subnet mask set.
8265ATM>
```

```
8265ATM> set device ip_address eth 9.100.109.203 ff.ff.ff.0
IP address and mask set
8265ATM>
```

SET DEVICE LAN_EMULATION_CLIENT

Mode: Administrator
Code Card: IISP / PNNI

Use this command to configure the required parameters for the LAN Emulation Client (LEC), assign an Internet Protocol (IP) address to the ATM Control Point, and define the subnetwork mask used for your class of Internet devices. This allows the ATM Control Point to register itself as part of the LAN emulation subnetwork and to set up ATM connections using its MAC address and ATM address.



Note:
1 All four parameters are required the first time the command is used. After that, the parameters can be entered individually, as shown in this diagram.

ETH | TR Specifies whether the emulated LAN is Ethernet or Token Ring.

DIX | 802_3
For an Ethernet LAN, specifies the type of Ethernet: either DIX (v.2.0) or 802.3.

lan_name
Specifies the name of the emulated LAN.

ip_address
Specifies the IP address of the LEC in the format *n.n.n.n*, where *n* is 0-255.

mac_address
Specifies the individual MAC address. The address must be in 802.3 format (locally and universally administered addresses are supported). If the MAC address is not specified, or if it is set to '000000000000', the burned-in address is used.

Changing the *mac_address* **will reset the 8265 switch**.

NO_LECS_WITH_LES | NO_LES_WITH_LECS
Specifies whether a LECS or a LES will be used to monitor the LEC.

les_atm_address | NONE
Specifies the ATM address of the LES that will monitor the emulated LAN (NO_LECS_WITH_LES only). The LES must be a LAN Emulation Forum-compliant LAN connected to the 8265 switch.

lecs_atm_address | NONE
Specifies the ATM address of the LECS that will be used by the LEC (NO_LES_WITH_LECS only).

subnet_mask
Specifies the actual subnet mask used by the ATM Control Pointin the LE subnetwork.

Usage Notes

- If no LES or LECS ATM address has been set, then the CPSW will search for the LECS ATM address, first using ILMI, then (if that does not work) using the Well Known Address (WKA). If a LES ATM address has been defined, then the LECS ATM address will never be used.
- The first time the SET DEVICE LAN_EMULATION_CLIENT command is used, you must enter all parameters before saving the configuration settings (no default values are provided). Once the settings have been saved, it is possible to change individual parameters, by specifying the keyword of the value to be changed, and the new value.
- When entering the command, you do not have to enter all the parameters at once. Providing a keyword is entered, you will be prompted for the value.

Related Commands

SHOW DEVICE, CLEAR DEVICE LAN_EMULATION_CLIENT, SAVE DEVICE, REVERT DEVICE

Example

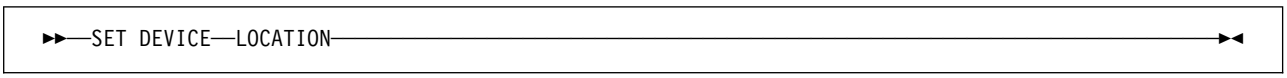
The following example changes the LES ATM address of the LEC:

```
8265ATM> set device lan_emulation_client eth eth_type:DIX ip_address:9.100.109.1
99 no_lecs_with_les:39.99.99.99.99.99.00.00.00.00.00.50.50.50.50.50.89.02.23.21
subnet_mask:39.99.99.99 emulated_lan_name
Enter Emulated LAN Name:
ventoux
Client starting.
8265ATM>
```

SET DEVICE LOCATION

Mode: Administrator
Code Card: IISP / PNNI

Use this command to record information on the physical location (up to 78 alphanumeric characters) of the 8265 switch in which the CPSW module is installed.



Related Commands

SHOW DEVICE, SAVE DEVICE, REVERT DEVICE

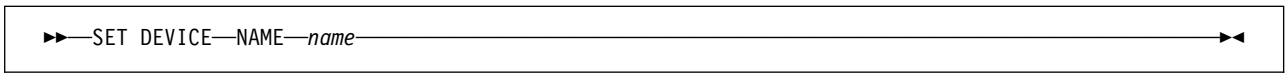
Example

```
8265ATM> set device location
Enter text:
Building M4, ground floor, patch panel 1, hub number 4

8265ATM>
```

SET DEVICE NAME

Mode: Administrator
Code Card: IISP / PNNI

Use this command to assign a name to the CPSWthat can be used in addition to its IP address to uniquely identify the module to IP devices. After entering the command, you are prompted to enter the location information on a separate line.



name Up to 15 alphanumeric characters (case sensitive). Initial value: `8265ATM`.

Usage Notes

- It is recommended that you assign the same name to the ATM Control Point console prompt that you use for the ATM Control Point. To modify the console prompt, use the SET TERMINAL PROMPT command.

Related Commands

SHOW DEVICE, SAVE DEVICE, REVERT DEVICE

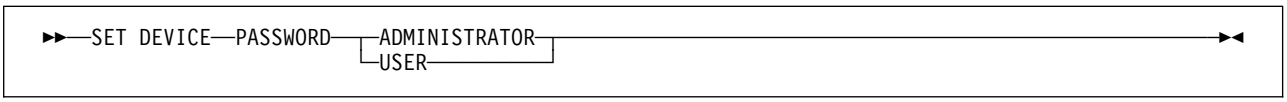
Example

```
8265ATM> set device name 8265ATM
Device name set
8265ATM>
```

SET DEVICE PASSWORD

Mode: Administrator
Code Card: IISP / PNNI

Use this command to create or change the Aministrator and User passwords. AFter entering the command, you are prompted to enter the current password, then the new password. Each password may contain up to 15 alphanumeric characters.



ADMINISTRATOR | USER
Specifies which password is to be created or changed.

Usage Notes

- The Administrator password gives read and write access to all ATM commands. The factory default is **8265**.

  The User password gives access to a subset of ATM commands, which allows you to view ATM Control Point status, clear counters, and log off. The factory default is a **null string**.
- For security reasons, passwords are not shown on the screen when you type them.
- After you set a new password, the password is immediately active. You will not need to enter it until the next time you log on.
- If you assign the same password for both Administrator and User, the User will have the same access rights as the Administrator; namely, access to all ATM commands.

Related Commands

SAVE DEVICE, REVERT DEVICE

Examples

ADMINISTRATOR: The following is an example of how to create an Administrator password the first time on an 8265:

```
8265ATM> set device password administrator

Enter current administrator password:    {8265}

New password:                            {new admin password}
Re-enter new password:                   {new admin password}

Password changed.
8265ATM>
```

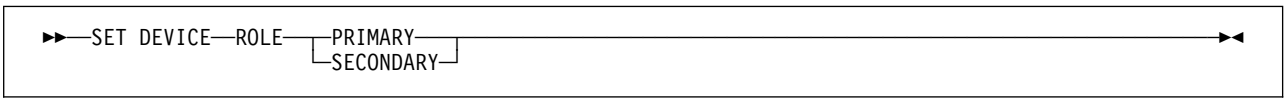
USER: The following is an example of how to create a User password:

```
8265ATM> set device password user

Enter current administrator password:    {admin password}

New password:                            {new user password}
Re-enter new password:                   {new user password}

Password changed.
8265ATM>
```

SET DEVICE ROLE

Mode: Administrator
Code Card: IISP / PNNI

Use this command to control the selection of the active CPSW in a redundant ATM subsystem.



PRIMARY
Specifies that the local CPSW module is to be the "active" CPSW.

SECONDARY
Specifies that the local CPSW module is to be the "standby" CPSW.

Usage Notes

- When the ATM subsystem elects which CPSW is to be active, (at power-on for example), whichever CPSW has been set as PRIMARY will be chosen. If both CPSWs have been defined as PRIMARY (or both as SECONDARY, the module in slots 9 & 10 is selected as PRIMARY.

Related Commands

SHOW DEVICE, SAVE DEVICE, REVERT DEVICE

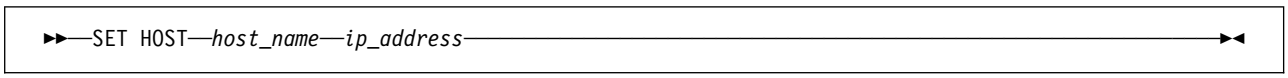
Example

```
8265ATM>set device role secondary

8265ATM>
```

SET HOST

Mode: Administrator
Code Card: IISP / PNNI

Use this command to assign a host name to an IP address. This allows you to use either the name or the IP address to identify a device.



name The host_name being assigned to the IP address.

ip_address
The IP address being associated with the host_name.

Related Commands

SHOW HOST, CLEAR HOST, SAVE HOST, REVERT HOST

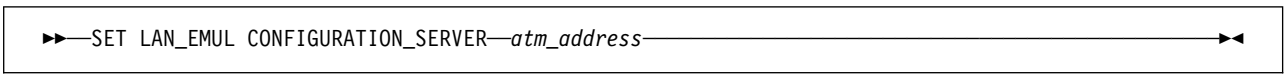
Example

```
8265ATM> set host lab3 9.100.109.203
Entry set.
8265ATM> set host lab4 9.100.109.204
Entry set.
8265ATM> show host
Index Host_Name                IP_Address
-------------------------------------------------------------------------------
   1  lab3                     9.100.109.203
   2  lab4                     9.100.109.204
18 entries empty.
```

SET LAN_EMUL CONFIGURATION_SERVER

Mode: Administrator
Code Card: IISP / PNNI

Use this command to add an entry to the 5-entry LECS (LAN emulation configuration server) address table.



atm_address

ATM address of an ATM Forum compliant LAN emulation configuration server.

Note: Pressing '?' (help) while entering the bytes of an ATM address displays a prompt indicating the number of the next byte to be entered.

Related Commands

SHOW LAN_EMUL CONFIGURATION_SERVER, CLEAR LAN_EMUL CONFIGURATION_SERVER, SAVE LAN_EMUL, REVERT LAN_EMUL

Example

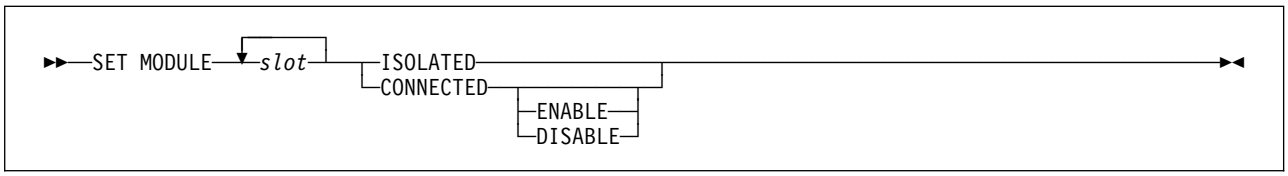
```
8265ATM> set lan_emul configuration_server
Enter ATM address : 39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.63.01.02
Entry set.
8265ATM> show lan_emul configuration_server
Index            ATM address
--------------------------------------------------------------------------------
  1            39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.65.00.00
  2            39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.62.02.02
  3            39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.63.03.02
  4            39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.63.02.02
  5            39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.63.01.02
8265ATM>
```

SET MODULE

Mode: Administrator
Code Card: IISP / PNNI

The SET MODULE command enables you to:

- Connect one or more isolated ATM media modules to the ATM network and optionally enable or disable all its ports.
- Isolate one or more ATM media modules (but not the CPSW module) from the ATM backplane network.



slot Slot number of the ATM media module.

ISOLATED | CONNECTED
Isolates or connects the selected module to the network.

ENABLE | DISABLE
Optionally enables or disables all ports on the selected module. Omit this parameter to leave the current port settings unchanged.

Usage Notes

- Before removing a module from the 8265, always isolate it from the network using the SET MODULE slot ISOLATED command.
- When an ATM media module is isolated, it remains in reset mode and no network activity takes place on it. This allows you to protect your ATM network from unauthorized access and module malfunction.
- The current configuration settings of an isolated ATM media modulecannot be accessed by the network. The status of its ports appears as `Unknown` in the SHOW MODULE VERBOSE screen display.
- The factory default setting for ATM media modules is `Isolated` with all ports `Disabled`. This means that ATM media modules do not start up as part of the ATM subsystem when you power ON the 8265 switch.
- When you install an ATM media module in a slot previously used by another ATM media module, it is initialized with the SET MODULE parameters that were last saved for that slot.

Related Commands

SHOW MODULE, SAVE MODULE_PORT, REVERT MODULE_PORT

Examples

The following is an example of how to isolate an ATM media module from the ATM network:

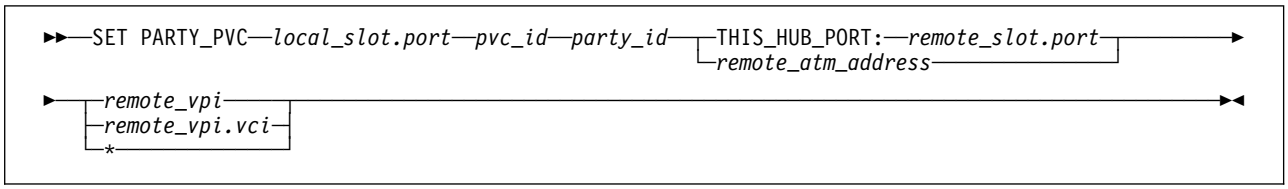
```
8265ATM> set module 2 isolated
Slot 2:Module set.
8265ATM>
```

The following example shows how to reconnect the module to the ATM network and enable all of its ports:

```
8265ATM> set module 2 connected enable
Slot 2:Module set
8265ATM>
```

SET PARTY_PVC

Mode: Administrator
Code Card: IISP / PNNI



local_slot.port
Specifies the local endpoint (slot and port number) of the Base PVC.

pvc_id Specifies the identifier of the Base PVC (range 1 - 999)

party_id Specifies the identifier of the Party PVC (range 1 - 16200)

THIS_HUB_PORT:remote_slot.port
Specifies the remote endpoint (slot and port number) of the Party PVC if the remote endpoint is a port on the local switch.

remote_atm_address
Specifies the remote ATM address of the Party PVC if the remote endpoint is a port on a remote switch.

remote_vpi | *
(With Virtual Path VPC) Specifies the virtual path identifier of the Party VPC on the remote switch. Entering ***** allows the switch to select the *vpi*.

remote_vpi.vci | *
(With Virtual Channel VPC) Specifies the virtual path and channel identifiers of the Party VPC on the remote switch. Entering ***** allows the switch to select the *vpi.vci*.

Usage Notes

- PVC settings are saved automatically to NVRAM.

Related Commands

SHOW PVC, CLEAR PVC, CLEAR PARTY

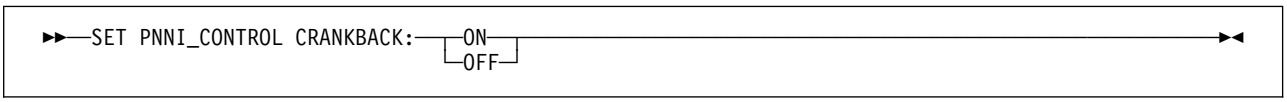
Example

```
8265ATM> set party_pvc 16.2 3 5 this_hub_port:1.2 3.6
PVC set and started.
8265ATM>
```

SET PNNI CRANKBACK

Mode: Administrator
Code Card: PNNI only

This command specifies enables and disables the signalling crankback function.



ON | OFF Enables and disables the signalling crankback function.

Related Commands

SHOW PNNI CRANKBACK, COMMIT PNNI, UNCOMMIT PNNI, SAVE PNNI, REVERT PNNI

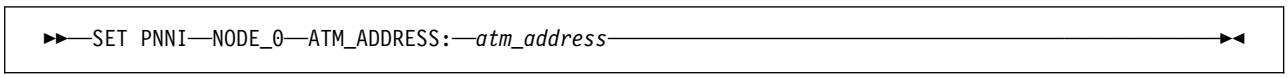
Example

```
8265ATM> set device lan_emulation_client eth eth_type:DIX ip_address:9.100.109.1
99 no_lecs_with_les:39.99.99.99.99.99.00.00.00.00.00.50.50.50.50.50.50.89.02.23.21
subnet_mask:39.99.99.99 emulated_lan_name
Enter Emulated LAN Name:
ventoux
Client starting.
8265ATM>
```

SET PNNI NODE_0 ATM_ADDRESS

Mode: Administrator
Code Card: IISP / PNNI

This command defines a new ATM address for the 8265 switch. Use this command only if you do not want to use the default ATM address.



atm_address
Specifies the new ATM address of the local switch.

Note: Pressing '?' (help) while entering the bytes of an ATM address displays a prompt indicating the number of the next byte to be entered.

Related Commands

SHOW PNNI NODE_0, SHOW FUTURE_PNNI NODE_0, COMMIT PNNI, UNCOMMIT PNNI, SAVE PNNI, REVERT PNNI

Example

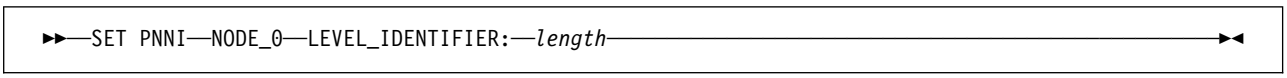
```
8265ATM> set pnni node_0 atm_address:
39.99.99.99.99.99.99.0.0.99.99.1.50.50.50.50.50.50.51.0
To activate issue COMMIT after your last 'set pnni...' entry.
To cancel all changes since previous COMMIT, issue UNCOMMIT.
8265ATM>
```

SET PNNI NODE_0 LEVEL_IDENTIFIER

Mode: Administrator
Code Card: PNNI only

This command creates the Node 0 Peer Group Identifier using a portion of the local switch's ATM address. The number of bits to be used depends on the *length* specified.

To define a Peer Group Identifier that does not depend on the ATM address of the local switch, use the SET PNNI NODE_0 PEER_GROUP_ID command.



length Specifies the number of bits from the ATM address that are used to create the Node 0 Peer Group Identifier. (Range=0-104, Default=96)

Usage Notes

- Do not use this command to change the length of a Peer Group Identifier that you have created with the PEER_GROUP_ID keyword. The Peer Group Identifier will be redefined based on the ATM address.

Related Commands

SHOW PNNI NODE_0, SHOW FUTURE_PNNI NODE_0, COMMIT PNNI, UNCOMMIT PNNI, SAVE PNNI, REVERT PNNI

Example

The following example defines the Peer Group Identifier as being the first 44 bits of the local switch's ATM address.

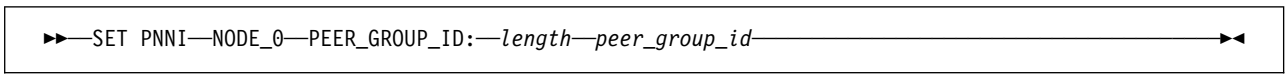
```
8265ATM> set pnni node_0 level_identifier:44
To activate issue COMMIT after your last 'set pnni...' entry.
To cancel all changes since previous COMMIT, issue UNCOMMIT.
8265ATM>
```

SET PNNI NODE_0 PEER_GROUP_ID

Mode: Administrator
Code Card: PNNI only

This command defines an explicit Node 0 Peer Group Identifier that is independent of the actual ATM address of the local switch.

To create a Peer Group Identifier based on a portion of the local switch's ATM address, use the SET PNNI NODE_0 LEVEL_IDENTIFIER command.



length Specifies the number of bits from the *peer_group_id* to be used when creating the Node 0 Peer Group Identifier. (Range=0-104, Default=96)

peer_group_id
Specifies the string, in the form of a partial ATM address, to be used when creating the Peer Group Identifier.

Related Commands

SHOW PNNI NODE_0, SHOW FUTURE_PNNI NODE_0, COMMIT PNNI, UNCOMMIT PNNI, SAVE PNNI, REVERT PNNI

Example

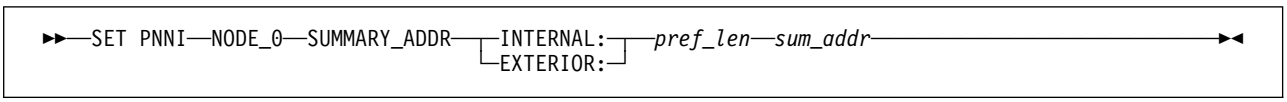
The following example defines the Peer Group Identifier as being the first 51 bits of the string `47.A5.32.4E.B7.48.19` .

```
8265ATM> set pnni node_0 peer_group_id:51 47.a5.32.4e.b7.48.19
To activate issue COMMIT after your last 'set pnni...' entry.
To cancel all changes since previous COMMIT, issue UNCOMMIT.
8265ATM>
```

SET PNNI NODE_0 SUMMARY_ADDR

Mode: Administrator
Code Card: PNNI only

This command defines summary addresses that provide reachability to remote switches that are not reachable using the default summary address.



INTERNAL:
Specifies that the summary address applies to addresses within the Node 0 Peer Group.

EXTERIOR:
Specifies that the summary address applies to addresses outside the Node 0 Peer Group.

pref_len Specifies the number of bits from the *summary_address* to be used when specifying the summary address. (Range=0-104)

sum_addr
Defines the string that the summary address is to be based on.

Related Commands

SHOW PNNI NODE_0, SHOW FUTURE_PNNI NODE_0, CLEAR PNNI SUMMARY_ADDRESS, COMMIT PNNI, UNCOMMIT PNNI, SAVE PNNI, REVERT PNNI

Example

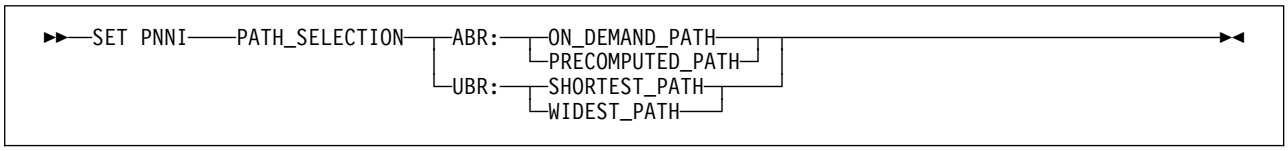
```
8265ATM> set pnni node_0 summary_addr exterior:30 39.22.ee.99
To activate issue COMMIT after your last 'set pnni...' entry.
To cancel all changes since previous COMMIT, issue UNCOMMIT.
8265ATM>
```

SET PNNI PATH_SELECTION

Mode: Administrator
Code Card: PNNI only

This command specifies the method of path selection to be used for Available Bit Rate (ABR) and Unspecified Bit Rate (UBR) connections.

Note: Reserved Bandwidth (VBR or CBR) calls are processed as ON_DEMAND_PATH and SHORTEST_PATH.



ABR: Selects Available Bit Rate. Available path selection methods are:

ON_DEMAND_PATH
Results in slower connection setup time but with better route optimization.

PRECOMPUTED_PATH
Results in faster connection setup time, using precomputed paths and taking routing information from predefined lookup tables.

UBR: Selects Unspecified Bit Rate. Available path selection methods are:

SHORTEST_PATH
Selects among the paths with the fewest number of hops.

WIDEST_PATH
Selects the least loaded path, regardless of number of hops.

Related Commands

SHOW PNNI PATH_SELECTION, SHOW FUTURE_PNNI PATH_SELECTION, COMMIT PNNI, UNCOMMIT PNNI, SAVE PNNI, REVERT PNNI

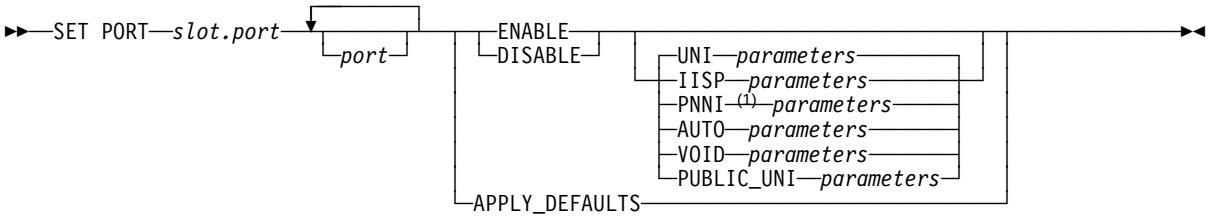
Example

```
8265ATM> set pnni path_selection abr:on_demand_path
To activate issue COMMIT after your last 'set pnni...' entry.
To cancel all changes since previous COMMIT, issue UNCOMMIT.
8265ATM>
```

SET PORT

Mode: Administrator
Code Card: IISP / PNNI

The following parameters for the SET PORT command are used to configure all ATM ports, regardless of the physical port type.



Note:
[1] PNNI Code Card only.

slot Slot number of the ATM media module.

port ATM port number. Multiple port numbers for the same slot may be entered in sequence.

APPLY_DEFAULTS
Resets all port parameters to the defaults for the port's interface type (UNI, IISP, and so on) and disables the port.

ENABLE | DISABLE
Enables and disables the selected port.

UNI | IISP | PNNI | AUTO | VOID | PUBLIC_UNI
Sets the interface type for the selected port (default = UNI).

parameters
The remaining parameters depend on the interface type:

UNI See “UNI Port Parameters” on page 68.

IISP See “IISP Port Parameters” on page 70.

PNNI See “PNNI Port Parameters” on page 72. (**PNNI Code Card only.**)

AUTO Enables automatic configuration of the interface type (UNI, IISP, or PNNI). See “AUTO Port Parameters” on page 74.

VOID See “VOID Port Parameters” on page 76.

PUBLIC_UNI
See “PUBLIC_UNI Port Parameters” on page 77.

Some ATM **port types** have further requirements and options that may be configured using the SET PORT command. These port-specific parameters are described in the following appendix sections:

155 Mbps “155 Mbps SET PORT Parameters” on page 178.

622 Mbps “622 Mbps SET PORT Parameters” on page 179.

E1/T1 “E1/T1 SET PORT Parameters” on page 180.

E3/DS3 “E3/DS3 SET PORT Parameters” on page 184.

OC3/STM1 “OC3/STM1 SET PORT Parameters” on page 189.

Related Commands

SHOW PORT, SAVE MODULE_PORT, REVERT MODULE_PORT

Example

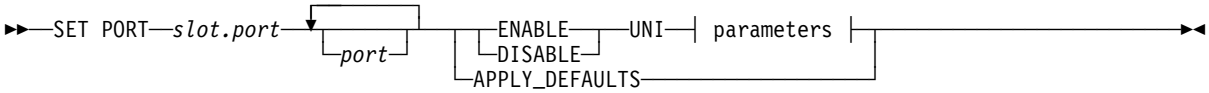
The following configures port 9 on slot 8 with PNNI interface with ILMI disabled.

```
8265ATM> set port 8.9 enable pnni ilmi_vpi_vci:none
 8.09:Port set
8265ATM>
```

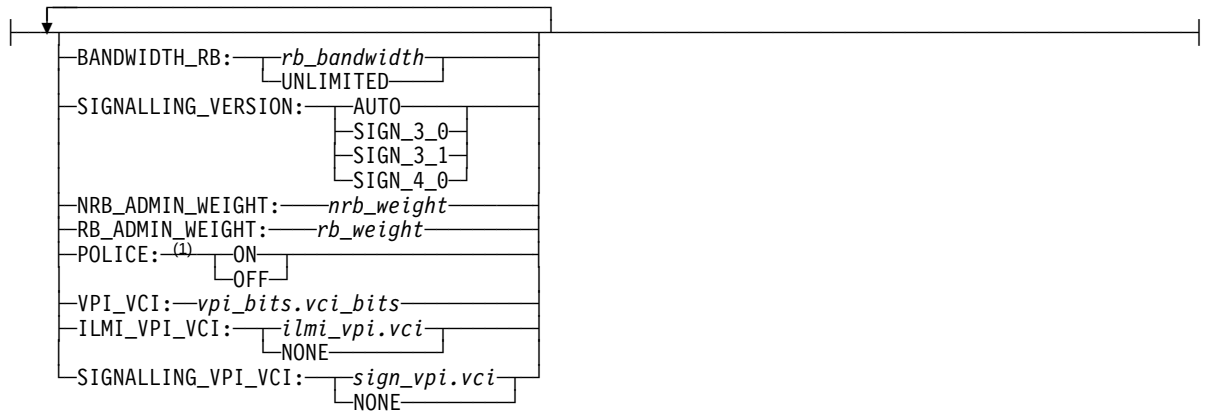
UNI Port Parameters

Code Card: IISP / PNNI

The following SET PORT parameters are used to configure ATM ports with UNI interface.



UNI Parameters:



Note:
[1] Not available for 8260 modules.

BANDWIDTH_RB:

Defines the maximum bandwidth that can be allocated for Reserved Bandwidth (RB) connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) over the selected port.

UNLIMITED Allocates the maximum setting for Reserved Bandwidth: 85% of port bandwidth.

rb_bandwidth Specifies the maximum bandwidth (in Kbps).

Notes:

1. The value of *rb_bandwidth* must be less than or equal to the port bandwidth.
2. Setting *rb_bandwidth* equal to the port bandwidth means that no Unspecified Bit Rate (UBR) or Available Bit Rate (ABR) connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) can be established on the selected port.
3. Setting *rb_bandwidth* equal to zero means that no RB connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) can be established on the selected port.

SIGNALLING_VERSION:

Specifies the signalling protocol version to use on this port.

AUTO (*ILMI only*) Use automatic detection to determine the signalling protocol version (UNI 3.0 , 3.1, or 4.0) on this port. (Default)

SIGN_3_0 Use UNI 3.0 signalling only on this UNI port.

SIGN_3_1 Use UNI 3.1 signalling only on this UNI port.

SIGN_4_0 Use UNI 4.0 signalling only on this UNI port.

NRB_ADMIN_WEIGHT: nrb_weight A 4-byte value that specifies the relative ranking of the selected port. (Default = 5040)

RB_ADMIN_WEIGHT: rb_weight A 4-byte value that specifies the relative ranking of the selected port. (Default = 5040)

POLICE: ON | OFF (**CBR and VBR traffic types only**) Enables and disables Policing on the selected port. (**Not available for 8260 modules.**)

VPI_VCI: vpi_bits.vci_bits Defines the maximum range of values for VPI and VCI values by specifying the number of bits available for each.

VPI Bits	VCI Bits (25 Mbps Ports)	VCI Bits (All Other Ports)
0	1 - 12	1 - 14
1 - 4	1 - 10	1 - 10
5 - 6	1 - 8	1 - 8

For example, on a 25 Mbps port this setting could be 2.10, and on another type of port it could be 4.10 .

ILMI_VPI_VCI: Specifies:

ilmi_vpi.vci The *vpi* and *vci* of the ILMI channel. (Default = 0.16)

NONE ILMI disabled on this port.

If you disable ILMI, then you cannot use signalling version AUTO.

SIGNALLING_VPI_VCI: Specifies:

sign_vpi.vci The *vpi* and *vci* of the Signalling channel. (Default = 0.5)

NONE Signalling disabled on this port.

Usage Notes

- The default values for the above parameters are applied when:
  - The interface type (UNI, PNNI, and so forth) is changed without specifying a value for the parameter
  - The APPLY_DEFAULTS keyword is specified.

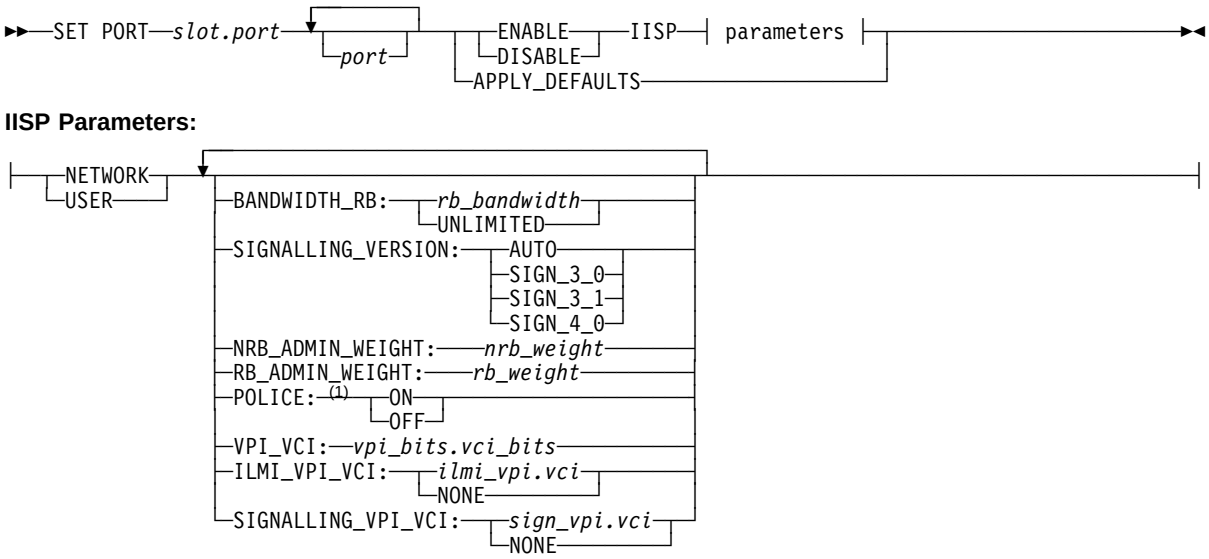
IISP Port Parameters

Code Card: IISP / PNNI

The following parameters for the SET PORT command are used to configure ATM ports with IISP interface.

Note: The default values for the following parameters are applied when:

- The interface type (UNI, PNNI, and so forth) is changed without specifying a value for the parameter
- The APPLY_DEFAULTS keyword is specified.



Note:
[1] Not available for 8260 modules.

BANDWIDTH_RB:

Defines the maximum bandwidth that can be allocated for Reserved Bandwidth (RB) connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) over the selected port.

UNLIMITED Allocates the maximum setting for Reserved Bandwidth: 85% of port bandwidth.

rb_bandwidth Specifies the maximum bandwidth (in Kbps).

Notes:

1. The value of *rb_bandwidth* must be less than or equal to the port bandwidth.
2. Setting *rb_bandwidth* equal to the port bandwidth means that no Unspecified Bit Rate (UBR) or Available Bit Rate (ABR) connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) can be established on the selected port.
3. Setting *rb_bandwidth* equal to zero means that no RB connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) can be established on the selected port.

SIGNALLING_VERSION:

Specifies the signalling protocol version to use on this port.

AUTO (*ILMI only*) Use automatic detection to determine the signalling protocol version (UNI 3.0 , 3.1, or 4.0) on this port. (Default)

SIGN_3_0 Use UNI 3.0 signalling only on this UNI port.

SIGN_3_1 Use UNI 3.1 signalling only on this UNI port.

SIGN_4_0 Use UNI 4.0 signalling only on this UNI port.

NRB_ADMIN_WEIGHT: nrb_weight
A 4-byte value that specifies the relative ranking of the selected port. (Default = 5040)

RB_ADMIN_WEIGHT: rb_weight
A 4-byte value that specifies the relative ranking of the selected port. (Default = 5040)

POLICE: ON | OFF
(**CBR and VBR traffic types only**) Enables and disables Policing on the selected port. (**Not available for 8260 modules.**)

VPI_VCI: vpi_bits.vci_bits
Defines the maximum range of values for VPI and VCI values by specifying the number of bits available for each.

VPI Bits	VCI Bits (25 Mbps Ports)	VCI Bits (All Other Ports)
0	1 - 12	1 - 14
1 - 4	1 - 10	1 - 10
5 - 6	1 - 8	1 - 8

For example, on a 25 Mbps port this setting could be 2.10, and on another type of port it could be 4.10 .

ILMI_VPI_VCI:
Specifies:

ilmi_vpi.vci The *vpi* and *vci* of the ILMI channel. (Default = 0.16)

NONE ILMI disabled on this port.

If you disable ILMI, then you cannot use signalling version AUTO.

SIGNALLING_VPI_VCI:
Specifies:

sign_vpi.vci The *vpi* and *vci* of the Signalling channel. (Default = 0.5)

NONE Signalling disabled on this port.

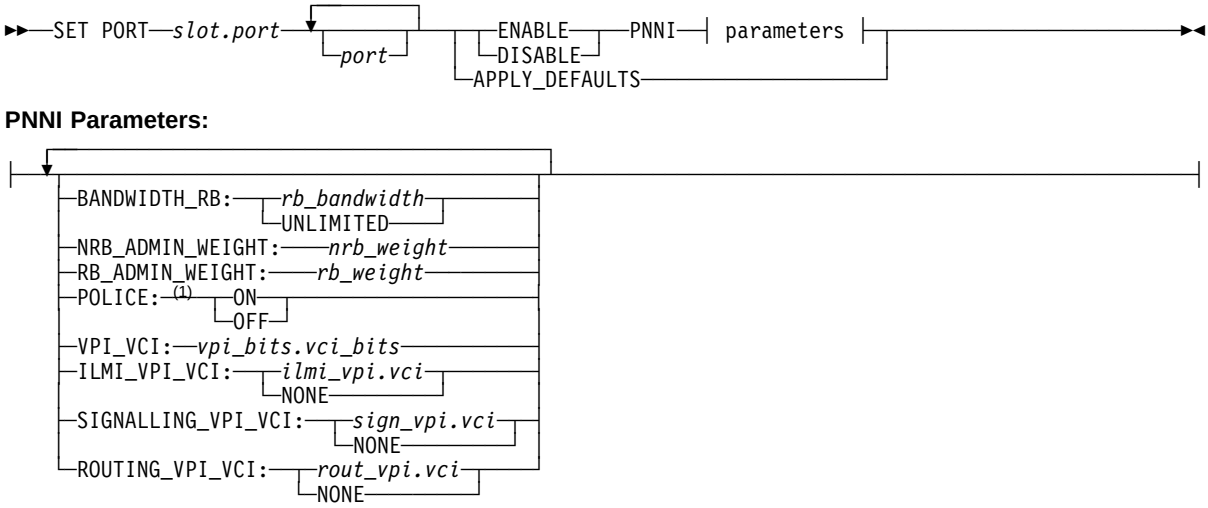
Usage Notes

- The default values for the above parameters are applied when:
  - The interface type (UNI, PNNI, and so forth) is changed without specifying a value for the parameter
  - The APPLY_DEFAULTS keyword is specified.

PNNI Port Parameters

Code Card: PNNI only

The following parameters for the SET PORT command are used to configure ATM ports with PNNI interface.



Note:
[1] Not available for 8260 modules.

BANDWIDTH_RB:
Defines the maximum bandwidth that can be allocated for Reserved Bandwidth (RB) connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) over the selected port.

UNLIMITED Allocates the maximum setting for Reserved Bandwidth: 85% of port bandwidth.

rb_bandwidth Specifies the maximum bandwidth (in Kbps).

Notes:

1. The value of *rb_bandwidth* must be less than or equal to the port bandwidth.
2. Setting *rb_bandwidth* equal to the port bandwidth means that no Unspecified Bit Rate (UBR) or Available Bit Rate (ABR) connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) can be established on the selected port.
3. Setting *rb_bandwidth* equal to zero means that no RB connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) can be established on the selected port.

NRB_ADMIN_WEIGHT: nrb_weight
A 4-byte value that specifies the relative ranking of the selected port. (Default = 5040)

RB_ADMIN_WEIGHT: rb_weight
A 4-byte value that specifies the relative ranking of the selected port. (Default = 5040)

POLICE: ON | OFF
(**CBR and VBR traffic types only**) Enables and disables Policing on the selected port. (**Not available for 8260 modules.**)

VPI_VCI: vpi_bits.vci_bits
Defines the maximum range of values for VPI and VCI values by specifying the number of bits available for each.

VPI Bits	VCI Bits (25 Mbps Ports)	VCI Bits (All Other Ports)
0	1 - 12	1 - 14
1 - 4	1 - 10	1 - 10
5 - 6	1 - 8	1 - 8

For example, on a 25 Mbps port this setting could be 2.10, and on another type of port it could be 4.10 .

ILMI_VPI_VCI:
Specifies:

ilmi_vpi.vci The *vpi* and *vci* of the ILMI channel. (Default = 0.16)

NONE ILMI disabled on this port.

If you disable ILMI, then you cannot use signalling version AUTO.

SIGNALLING_VPI_VCI:
Specifies:

sign_vpi.vci The *vpi* and *vci* of the Signalling channel. (Default = 0.5)

NONE Signalling disabled on this port.

ROUTING_VPI_VCI:
Specifies:

rout_vpi.vci The *vpi* and *vci* of the Routing channel. (Default = 0.18)

NONE Routing disabled on this port.

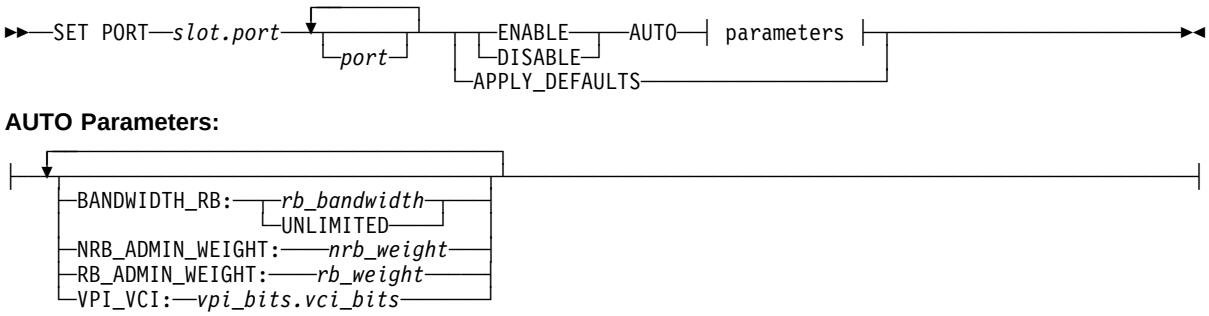
Usage Notes

- The default values for the above parameters are applied when:
  - The interface type (UNI, PNNI, and so forth) is changed without specifying a value for the parameter
  - The APPLY_DEFAULTS keyword is specified.

AUTO Port Parameters

Code Card: IISP / PNNI

The following parameters for the SET PORT command are used to configure ATM ports with AUTO interface.



Note:
[1] Not available for 8260 modules.

BANDWIDTH_RB:
Defines the maximum bandwidth that can be allocated for Reserved Bandwidth (RB) connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) over the selected port.

UNLIMITED Allocates the maximum setting for Reserved Bandwidth: 85% of port bandwidth.

rb_bandwidth Specifies the maximum bandwidth (in Kbps).

Notes:

1. The value of *rb_bandwidth* must be less than or equal to the port bandwidth.
2. Setting *rb_bandwidth* equal to the port bandwidth means that no Unspecified Bit Rate (UBR) or Available Bit Rate (ABR) connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) can be established on the selected port.
3. Setting *rb_bandwidth* equal to zero means that no RB connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) can be established on the selected port.

NRB_ADMIN_WEIGHT: nrb_weight
A 4-byte value that specifies the relative ranking of the selected port. (Default = 5040)

RB_ADMIN_WEIGHT: rb_weight
A 4-byte value that specifies the relative ranking of the selected port. (Default = 5040)

VPI_VCI: vpi_bits.vci_bits
Defines the maximum range of values for VPI and VCI values by specifying the number of bits available for each.

VPI Bits	VCI Bits (25 Mbps Ports)	VCI Bits (All Other Ports)
0	1 - 12	1 - 14
1 - 4	1 - 10	1 - 10
5 - 6	1 - 8	1 - 8

For example, on a 25 Mbps port this setting could be 2.10, and on another type of port it could be 4.10 .

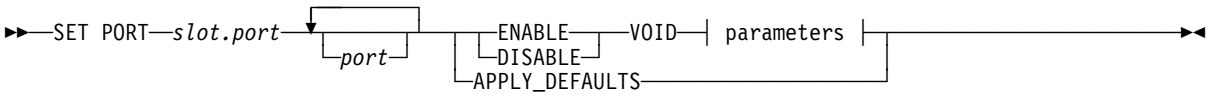
Usage Notes

- The default values for the above parameters are applied when:
  - The interface type (UNI, PNNI, and so forth) is changed without specifying a value for the parameter
  - The APPLY_DEFAULTS keyword is specified.

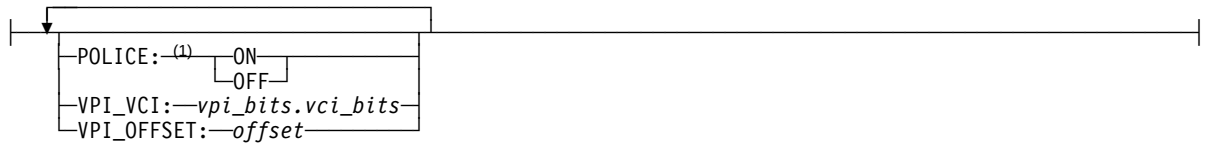
VOID Port Parameters

Code Card: IISP / PNNI

The following parameters for the SET PORT command are used to configure ATM ports with VOID interface.



VOID Parameters:



Note:
[1] Not available for 8260 modules.

POLICE: ON | OFF
(**CBR and VBR traffic types only**) Enables and disables Policing on the selected port. (**Not available for 8260 modules.**)

VPI_VCI: vpi_bits.vci_bits
Defines the maximum range of values for VPI and VCI values by specifying the number of bits available for each.

VPI Bits	VCI Bits (25 Mbps Ports)	VCI Bits (All Other Ports)
0	1 - 12	1 - 14
1 - 4	1 - 10	1 - 10
5 - 6	1 - 8	1 - 8

For example, on a 25 Mbps port this setting could be 2.10, and on another type of port it could be 4.10 .

offset Specifies a number to be added to the original VPI values to create a new range of values.

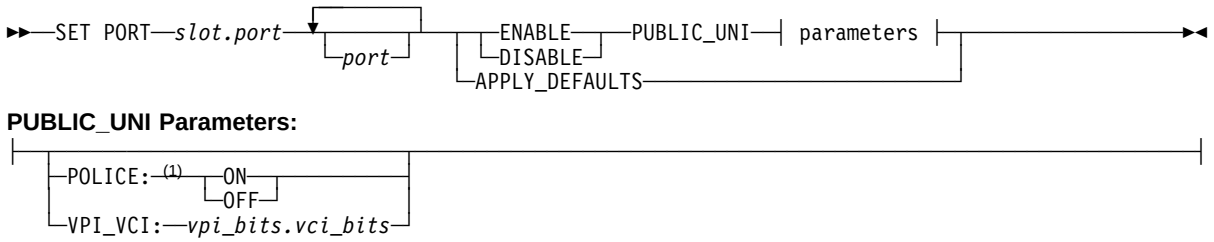
Usage Notes

- The default values for the above parameters are applied when:
  - The interface type (UNI, PNNI, and so forth) is changed without specifying a value for the parameter
  - The APPLY_DEFAULTS keyword is specified.
- When specifying VPI_OFFSET:
  - All VPCs must be defined with VPI values that are within the new range.
  - SVCs will be allocated using the smallest value in the VPI range (for example, vpi.vci 64.32, 64.33, and so on).
  - The maximum VPI value (original value plus offset) is 255. For example, with *vpi_vci* set to 6.8 (VPI range 0–63) the maximum value for offset is 192, which gives a new range of 192–255.

PUBLIC_UNI Port Parameters

Code Card: IISP / PNNI

The following parameters for the SET PORT command are used to configure ATM ports with PUBLIC_UNI interface.



PUBLIC_UNI Parameters:

Note:
1 Not available for 8260 modules.

POLICE: ON | OFF

(**CBR and VBR traffic types only**) Enables and disables Policing on the selected port. (**Not available for 8260 modules.**)

VPI_VCI: vpi_bits.vci_bits

Defines the maximum range of values for VPI and VCI values by specifying the number of bits available for each.

VPI Bits	VCI Bits (25 Mbps Ports)	VCI Bits (All Other Ports)
0	1 - 12	1 - 14
1 - 4	1 - 10	1 - 10
5 - 6	1 - 8	1 - 8

For example, on a 25 Mbps port this setting could be 2.10, and on another type of port it could be 4.10 .

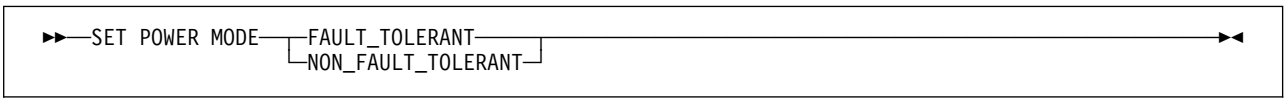
Usage Notes

- The default values for the above parameters are applied when:
  - The interface type (UNI, PNNI, and so forth) is changed without specifying a value for the parameter
  - The APPLY_DEFAULTS keyword is specified.

SET POWER MODE

Mode: Administrator
Code Card: IISP / PNNI

Use this command to choose between normal and fault-tolerant power supply operation.



FAULT_TOLERANT
The power required to operate a power supply is kept in reserve, to be used in the event of a failure. To use fault-tolerant mode, you must have one more power supply than is required to power all modules in the switch.

NON_FAULT_TOLERANT
The entire power supply capacity of all installed power supplies is used.

Usage Notes

- For example, when 295 watt power supplies are used:
  - Each power supply provides approximately 200 watts at +5 volts.
  - You have three power supplies available (~600 watts).

  In this scenario, non-fault tolerant mode allows you to use ~600 watts. Fault-tolerant mode allows you to use ~400 watts, reserving ~200 watts for use in the event of a failure.
- Regardless of the power mode setting, the power load being used is shared across all installed power supplies.
- The command is not immediately effected when the installed power is insufficient to support fault tolerant mode. Fault tolerant mode is automatically enabled when sufficient power becomes available (when another power supply is added).

Related Commands

SHOW POWER, SAVE ALL, REVERT ALL

Example

The following example attempts to set the power mode to fault tolerant:

```
8265ATM> set power mode fault_tolerant

Set power mode to FAULT_TOLERANT requested.

8265ATM>
```

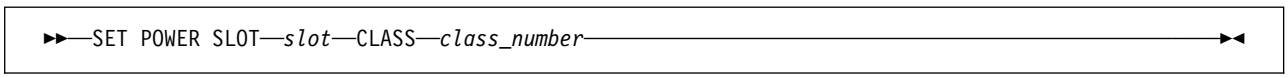
SET POWER SLOT

Mode: Administrator
Code Card: IISP / PNNI

Use this command to assign each module to a power class from 1-10, which determines the order in which modules are powered-OFF when there is inadequate power for full operation of the ATM subsystem.

If the power drops to a level that is insufficient for all modules to operate, the modules are automatically powered-OFF according to the following rules:

- Modules with the lowest *class_number* are powered-OFF first, followed by modules of the next-lowest *class_number*, and so forth until the power requirements of the remaining modules falls within the available supply of power.
- Modules with *class_number* 10 are never powered-OFF under any circumstances.



slot Slot number of the ATM Media module. Valid slot numbers are in the range 1 to 8 and 12 to 17.

class_number
A number from 1 to 10. Modules of class 1 are the first to be powered-OFF in case of reduced power, and modules of class 10 are never powered-OFF.

Related Commands

SHOW POWER, SAVE ALL, REVERT ALL

Example

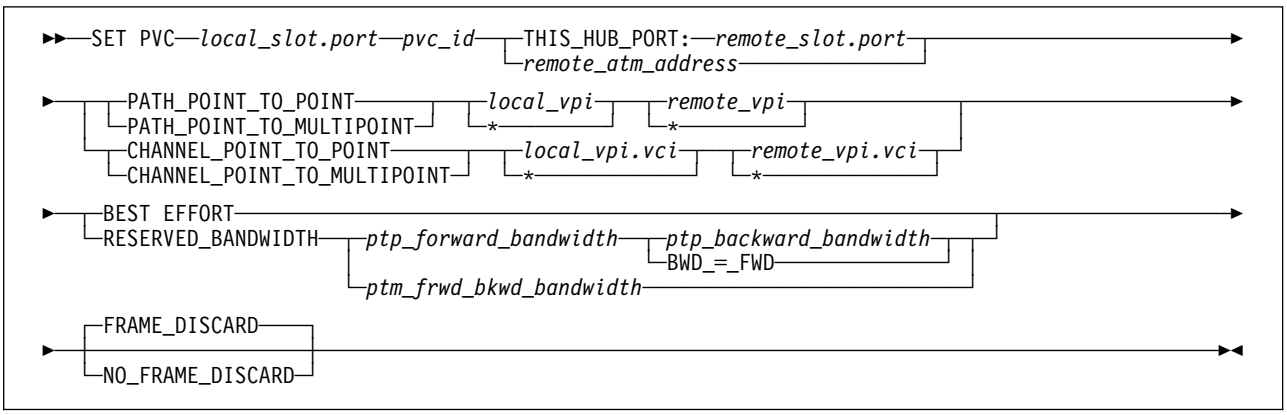
The following example sets slot 3 to class 10.

```
8265ATM> set power slot 3 class 10
Set slot 3 power class to 10 requested.
8265ATM>
```

SET PVC

Mode: Administrator
Code Card: IISP / PNNI

Use this command to define Point-to-Point (PtP) and Point-to-Multipoint (PtM) Permanent Virtual Connections (PVCs) for both Virtual Channel Connections (VCCs) and Virtual Path Connections (VPCs).



local_slot.port
Specifies the local endpoint (slot and port number) of the PVC.

pvc_id Specifies the unique identifier of the PVC (range 1 - 999)

remote_slot.port
Specifies the remote endpoint (slot and port number) of the PVC when the remote endpoint is a port on the local switch.

remote_atm_address
Specifies the remote ATM address of the PVC when the remote endpoint is a port on a remote switch.

PATH_POINT_TO_POINT | PATH_POINT_TO_MULTIPOINT
Specifies a Virtual Path PVC, either point-to-point or point-to-multipoint.

local_vpi | *
Specifies the virtual path identifier of the PVC on the local switch. Entering ***** allows the switch to select the *vpi*.

remote_vpi | *
Specifies the virtual path identifier of the PVC on the remote switch. Entering ***** allows the switch to select the *vpi*.

CHANNEL_POINT_TO_POINT | CHANNEL_POINT_TO_MULTIPOINT
Specifies a Virtual Channel PVC, either point-to-point or point-to-multipoint.

local_vpi.vci | *
Specifies the virtual path and channel identifiers of the PVC on the local switch. Entering ***** allows the switch to select the *vpi.vci*.

remote_vpi.vci | *
Specifies the virtual path and channel identifiers of the PVC on the remote switch. Entering ***** allows the switch to select the *vpi.vci*.

BEST_EFFORT | RESERVED_BANDWIDTH
Selects the bandwidth allocation algorithm for the PVC.

ptp_forward_bandwidth
Specifies the bandwidth (in Kbps) to be reserved from the local endpoint to the remote endpoint of a point-to-point PVC (Reserved Bandwidth only).

ptp_backward_bandwidth | BWD_=_FWD
Specifies the bandwidth (in Kbps) to be reserved from the remote endpoint to the local endpoint of a point-to-point PVC (Reserved Bandwidth only).

ptp_backward_bandwidth
Specifies a bandwidth that is different from the forward bandwidth.

BWD_=_FWD
Specifies that the backward bandwidth is equal to the forward bandwidth.

ptm_frwd_bkwd_bandwidth
Specifies the bandwidth (in Kbps) to be reserved in both directions on a point-to-multipoint PVC (Reserved Bandwidth only).

FRAME_DISCARD | NO_FRAME_DISCARD
Enables or disables 'smart' frame-discard (discard of ATM cells pertaining to the same discarded message).

Usage Notes

- *pvc_id* values greater than 999 may be entered for *pvc_id*, but are not recommended. Values above 1000 are assigned by the switch to secondary PVC endpoints.
- The maximum number of PVCs that can be defined for an ATM Control Point is 100.
- PVC settings are saved automatically to NVRAM.

Related Commands

SHOW_PVC, SHOW PARTY_PVC, CLEAR PVC, CLEAR PARTY

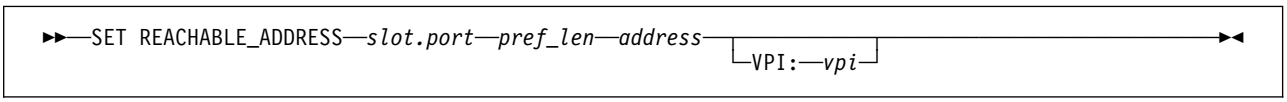
Examples

```
8265ATM> set pvc 16.2 3
39.99.99.99.99.99.99.00.00.88.88.bb.bb.42.00.00.00.6.d.00
path_point_to_point 2 3 best_effort frame_discard

PVC set and started.
8265ATM> set pvc 16.4 5
39.99.99.99.99.99.99.00.00.88.88.bb.bb.42.00.00.00.6.a.00
path_point_to_point 2 3 reserved_bandwidth 120 bwd_=_fwd frame_discard

PVC set and started.

8265ATM>
```

SET REACHABLE_ADDRESS

Mode: Administrator
Code Card: IISP / PNNI

This command specifies the prefix of addresses reachable through a specified port or VPC.



slot.port Specifies the port to which the reachable address applies.

pref_len Specifies the length, in bits, of the reachable address.

address Specifies the reachable address in hexadecimal format.

vpi (Optional) Specifies the vpi to which the reachable address applies, in the case where the address applies to a VPC rather than a port.

If *vpi* is not provided, the reachable address is applied to the specified port itself.

Related Commands

SHOW REACHABLE_ADDRESS, SET REACHABLE_ADDRESS, SAVE ALL, REVERT ALL

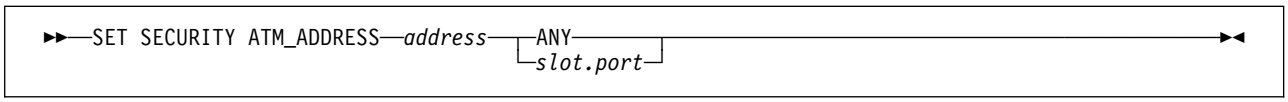
Example

```
8265ATM> set reachable_address 4.2 24 39.99.78
Entry set.
8265ATM> show reachable_address all
Port  Len Address                                              Active Idx VPI
-------------------------------------------------------------------------------
 4.02  24 39.99.78.  .  .  .  .  .  .  .  .  .  .  .  .  .  .   N   1  -
 4.03 152 39.99.99.99.99.99.99.00.00.99.99.01.50.08.00.5A.99.02.BE Y Dyn   0
15.03 152 39.99.99.99.99.99.99.00.00.99.99.01.50.08.00.5A.99.02.A1 Y Dyn   0
8265ATM>
```

SET SECURITY ATM_ADDRESS

Mode: Administrator
Code Card: IISP / PNNI

This command creates an entry in the access control address table that requires a connection to match the full ATM address to be validated. Access control for the specified ATM address can be applied globally on all ports or on a per-port basis.



address Specifies the ATM address to be validated using the full ATM address.

ANY Specifies that connections to the address may be made globally on all ports.

slot.port Specifies that connections to the address may be made only on the selected port.

Usage Notes

- To perform address validation using only the ESI portion of the address, use the SET SECURITY ESI_ADDRESS command instead.
- The same address cannot be defined both globally for all ports (with ANY) and for a specific port (with *slot.port*).

Related Commands

SHOW SECURITY ATM_ADDRESS, SAVE SECURITY, REVERT SECURITY

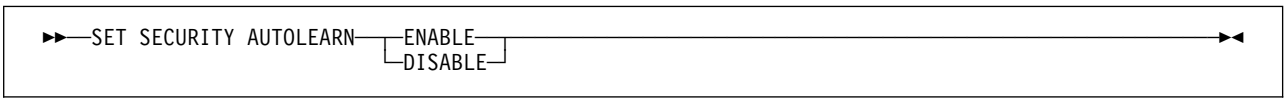
Example

```
8265ATM> set security atm_address
Enter ATM address: 39.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99.99 16.2
Entry set.

8265ATM>
```

SET SECURITY AUTOLEARN

Mode: Administrator
Code Card: IISP / PNNI

This command enables and disables the AUTOLEARN function on ports registered from ILMI.



ENABLE | DISABLE
Specifies whether the AUTOLEARN function should be enabled or disabled on ports registered from ILMI.

Related Commands

SHOW SECURITY CONTROL, SAVE SECURITY, REVERT SECURITY

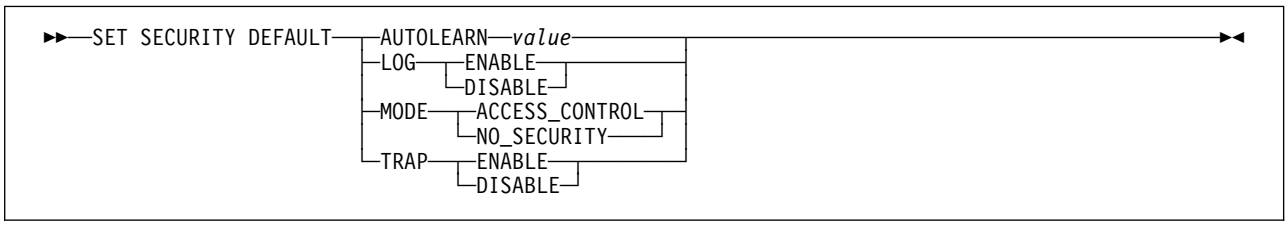
Examples

```
8265ATM> set security autolearn enable
8265ATM> show security control

               mode           autolearn      trap             log
-------------------------------------------------------------------------------
Control Flags  NO_SECURITY    ENABLED        DISABLED         DISABLED

8265ATM>
```

SET SECURITY DEFAULT

Mode: Administrator
Code Card: IISP / PNNI

This command sets the default security settings for ports registered from ILMI.



value Specifies the default number of ATM addresses that can be learned on each port registered from ILMI:

1-16 The default number of addresses that can be learned.

0 Disables autolearn on newly detected ports.

LOG Defines default security violation log settings.

ENABLE | DISABLE
Specifies whether the default is to generate a log of security violations or not.

MODE Defines default security Mode settings.

ACCESS_CONTROL
Specifies that the default is to apply access control to ports registered from ILMI.

NO_SECURITY
Specifies that the default is **not** to apply access control to ports registered from ILMI.

TRAP Defines default security trap settings.

ENABLE | DISABLE
Specifies whether the default is to enable SNMP traps for security violations on ports registered from ILMI or not.

Related Commands

SHOW SECURITY DEFAULT, SAVE SECURITY, REVERT SECURITY

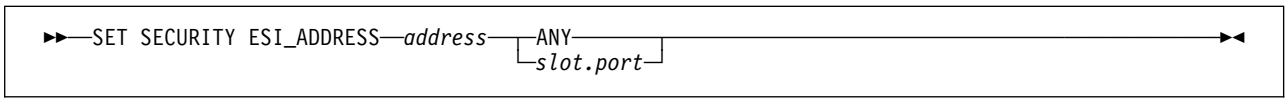
Examples

```
8265ATM> set security default mode access_control
Security default parameters SET.
WARNING! will apply only on new inserted module.

8265ATM> set security default autolearn 0
Security default parameters SET.
WARNING! will apply only on new inserted module.

8265ATM> show security default

               mode           autolearn      trap             log
-------------------------------------------------------------------------------
Default Flags  ACCESS_CONTROL 00             DISABLED         ENABLED

8265ATM>
```

SET SECURITY ESI_ADDRESS

Mode: Administrator
Code Card: IISP / PNNI

This command creates an entry in the access control address table that requires a connection to match only the ESI portion of the ATM address to be validated. Access control for the specified ESI address can be applied globally on all ports or on a per-port basis.



address Specifies the ESI portion of the ATM address to be used in validation.

ANY Specifies that connections to the addresses may be made globally on all ports.

slot.port Specifies that connections to the addresses may be made only on the selected port.

Usage Notes

- To perform address validation using the full ATM address, use the SET SECURITY ATM_ADDRESS command instead.
- The same address cannot be defined both globally for all ports (with ANY) and for a specific port (with *slot.port*).

Related Commands

SHOW SECURITY ATM_ADDRESS, SAVE SECURITY, REVERT SECURITY

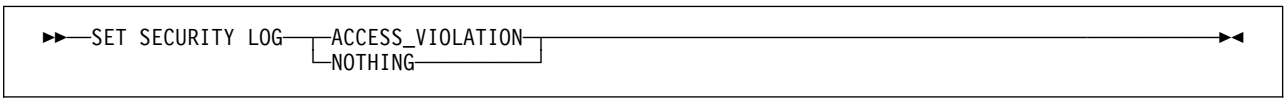
Example

```
8265ATM> set security esi_address
99.99.99.99.99.99 14.2

Entry set.
8265ATM>
```

SET SECURITY LOG

Mode: Administrator
Code Card: IISP / PNNI

This command enables and disables the generation of a log of security violations.



ACCESS_VIOLATION
Enables creation of the security violation log.

NOTHING
Disables creation of the security violation log.

Related Commands

SHOW SECURITY VIOLATION_LOG, CLEAR SECURITY VIOLATION_LOG, SAVE SECURITY, REVERT SECURITY

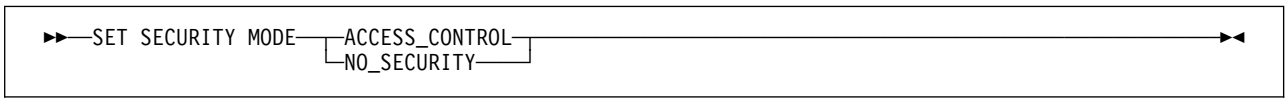
Example

```
8265ATM> set security log access_violation
8265ATM> show security control

               mode           autolearn      trap             log
-------------------------------------------------------------------------------
Control Flags  NO_SECURITY    ENABLED        ACCESS_VIOLATION ACCESS_VIOLATION

8265ATM>
```

SET SECURITY MODE

Mode: Administrator
Code Card: IISP / PNNI

This command enables and disables access control on all ports of the local switch.



ACCESS_CONTROL
Specifies that access control is enabled on all ports on the local switch.

NO_SECURITY
Specifies that access control is disabled for all ports on the local switch.

Related Commands

SHOW SECURITY CONTROL, SAVE SECURITY, REVERT SECURITY

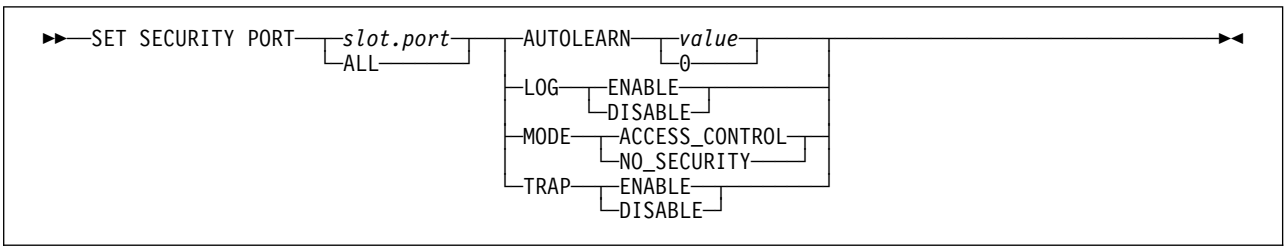
Example

```
8265ATM> show security control

               mode           autolearn      trap             log
-------------------------------------------------------------------------------
Control Flags  NO_SECURITY    ENABLED        DISABLED         DISABLED

8265ATM> set security mode access_control

8265ATM> show security control

               mode           autolearn      trap             log
-------------------------------------------------------------------------------
Control Flags  ACCESS_CONTROL ENABLED        DISABLED         DISABLED

8265ATM>
```

SET SECURITY PORT

Mode: Administrator
Code Card: IISP / PNNI

This command sets the security settings for TRAP, MODE, and AUTOLEARN on a single port or on all ports.



slot.port Specifies that the setting is to be applied only to the selected port.

ALL Specifies that the setting is to be applied to all ports.

value Specifies the number of ATM addresses that can be learned on the selected port.

1-16 The number of addresses that can be learned.

0 Disables autolearn on the selected port.

LOG Defines security violation log settings for the port(s).

ENABLE | DISABLE
Specifies whether to generate a log of security violations on the port(s) or not.

MODE Defines current security Mode settings for the port(s).

ACCESS_CONTROL
Applies access control to the port(s).

NO_SECURITY
Applies no access control to the port(s).

TRAP Defines current security trap settings for the port(s).

ENABLE | DISABLE
Specifies whether to enable SNMP traps for security violations on the port(s).

Related Commands

SHOW SECURITY PORT, SAVE SECURITY, REVERT SECURITY

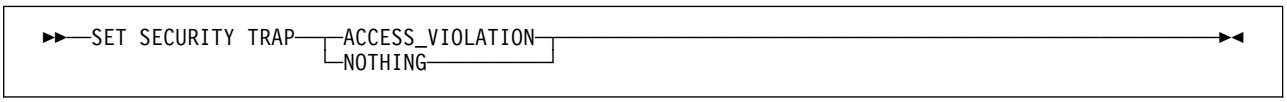
Example

```
8265ATM> show security port all
slotport       mode           autolearn      trap             log
-------------------------------------------------------------------------------
17.01          NO_SECURITY    00             DISABLED         DISABLED
17.02          NO_SECURITY    00             DISABLED         DISABLED
17.03          NO_SECURITY    00             DISABLED         DISABLED
17.04          NO_SECURITY    00             DISABLED         DISABLED

8265ATM> set security port 17.2 mode access_control
Security set completed.

8265ATM> show security port all
slotport       mode           autolearn      trap             log
-------------------------------------------------------------------------------
17.01          NO_SECURITY    00             DISABLED         DISABLED
17.02          ACCESS_CONTROL 00             DISABLED         DISABLED
17.03          NO_SECURITY    00             DISABLED         DISABLED
17.04          NO_SECURITY    00             DISABLED         DISABLED
8265ATM>
```

SET SECURITY TRAP

Mode: Administrator
Code Card: IISP / PNNI

This command enables or disables creation of system traps for security violations.



ACCESS_VIOLATION
Enables trapping of security violations.

NOTHING
Disables trapping of security violations.

Related Commands

SHOW SECURITY CONTROL, SAVE SECURITY, REVERT SECURITY

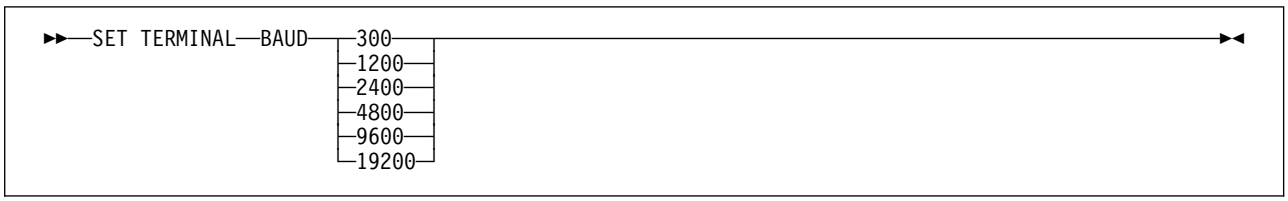
Example

```
8265ATM> set security trap access_violation
8265ATM> show security control

               mode           autolearn      trap             log
-------------------------------------------------------------------------------
Control Flags  NO_SECURITY    ENABLED        ACCESS_VIOLATION ACCESS_VIOLATION

8265ATM>
```

SET TERMINAL BAUD

Mode: Administrator
Code Card: IISP / PNNI

Use this command to configure the ATM Control Point to the same data transmission rate used by the attached configuration console or modem.



300 | 1200 | 2400 | 4800 | 9600 | 19200
Selects the baud rate of the configuration console.

Usage Notes

- You cannot change the terminal baud for the CPSW module using SNMP.
- To configure the ATM Control Point to communicate with a console or modem that has a baud rate **other than 9600**, follow these steps:
  1. Connect a console that uses a 9600 baud rate, then press Enter to access the ATM Control Point.
  2. Enter the SET TERMINAL BAUD command with the lower baud rate value. After you enter the command, the connection to the ATM Control Point is lost.
  3. Disconnect the console and connect the second console that uses the baud rate configured in Step 2.
  4. Press Enter. Your connection to the ATM Control Point is re-established.
  5. Enter the SAVE TERMINAL command to permanently save the new baud rate.

Related Commands

SHOW TERMINAL, SAVE TERMINAL, REVERT TERMINAL

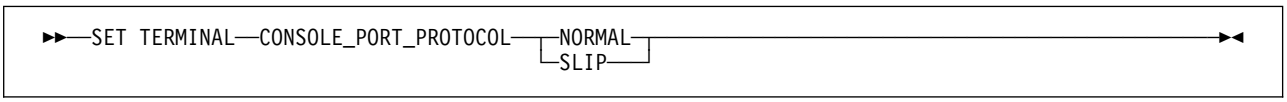
Examples

```
8265ATM> set terminal baud 2400

8265ATM>
```

SET TERMINAL CONSOLE_PORT_PROTOCOL

Mode: User / Administrator
Code Card: IISP / PNNI

Use this command to specify the operating mode of the ATM Control Point console port.



NORMAL Specifies ASCII-terminal mode. This is the default.

SLIP Specifies Serial Line IP (SLIP) protocol. This option can only be selected from a local console; it cannot be selected via TELNET. When this mode is selected, the configuration console must be a workstation with an active IP stack, and be connected from its serial port to the ATM Control Point console port.

If there is no activity for a period of 20 minutes, the console is automatically returned to normal mode.

Related Commands

SHOW TERMINAL, SAVE TERMINAL, REVERT TERMINAL

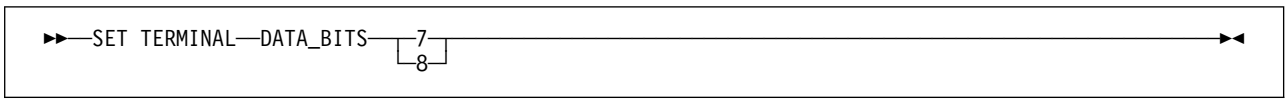
Example

```
8265ATM> set terminal console_port_protocol slip

8265ATM>
```

SET TERMINAL DATA_BITS

Mode: Administrator
Code Card: IISP / PNNI

Use this command to configure the ATM Control Point to use the same number of data bits used by the attached configuration console or modem.



7 | 8 Specifies the number of data bits used by the configuration console.

Usage Notes

- To configure the ATM Control Point to communicate with a console or modem that has a data bit level of 7, follow these steps:
  1. Connect a console that uses 8 data bits, then press Enter to access the ATM Control Point.
  2. Enter the SET TERMINAL DATA_BITS command with the data bit set to 7. After you reset the data bit, the connection to the ATM Control Point is lost.
  3. Disconnect the console and connect the second console that uses 7 data bits.
  4. Press Enter. Your connection to the ATM Control Point is re-established.
  5. Enter the SAVE TERMINAL command to permanently save the new data bit setting.

Related Commands

SHOW TERMINAL, SAVE TERMINAL, REVERT TERMINAL

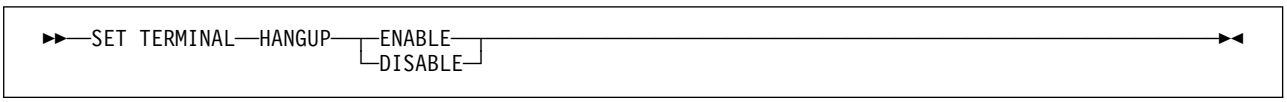
Example

```
8265ATM> set terminal data_bits 7

8265ATM>
```

SET TERMINAL HANGUP

Mode: Administrator
Code Card: IISP / PNNI

This command hangs up the modem automatically when you log off, which prevents unauthorized users from using your ATM Control Point modem session.



ENABLE Specifies that the modem automatically disconnects when you log off.

DISABLE Specifies that the modem is disconnected only when you manually hang up the modem.

Usage Notes

- The modem connection is also automatically disconnected if you enable this command and make no keyboard entries from the console for a time period greater than the value set with the SET TERMINAL TIMEOUT command.

Related Commands

SHOW TERMINAL, SAVE TERMINAL, REVERT TERMINAL

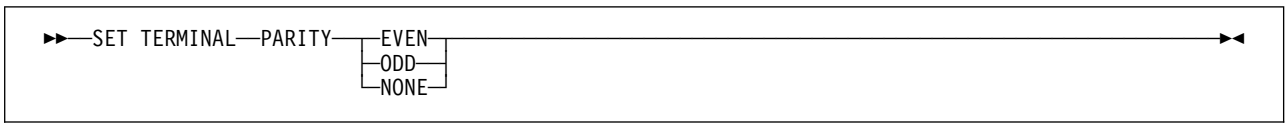
Example

```
8265ATM> set terminal hangup disable

8265ATM>
```

SET TERMINAL PARITY

Mode: Administrator
Code Card: IISP / PNNI

Use this command to configure the ATM Control Point to the same parity used by the attached configuration console or modem.



EVEN | ODD | NONE
Specifies the parity of the configuration console.

Usage Notes

- To configure the ATM Control Point to communicate with a console or modem that has a parity setting other than `None`, follow these steps:
  1. Connect a console that has its parity set to `None`. Then press Enter to access the ATM Control Point.
  2. Enter the SET TERMINAL PARITY command and set the parity to the new value (even or odd). After you reset this value, the connection to the ATM Control Point is lost.
  3. Disconnect the console and connect the second console that uses the parity setting configured in the preceding step.
  4. Press Enter. Your connection to the ATM Control Point is re-established.
  5. Enter the SAVE TERMINAL command to permanently save the parity setting.

Related Commands

SHOW TERMINAL, SAVE TERMINAL, REVERT TERMINAL

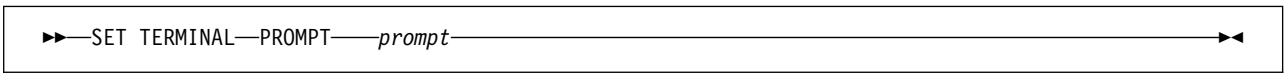
Examples

```
8265ATM> set terminal parity even

8265ATM>
```

SET TERMINAL PROMPT

Use this command to customize the ATM prompt that appears on the console screen.

Mode: Administrator
Code Card: IISP / PNNI



prompt Specifies a string of up to 15 alphanumeric characters (case sensitive). Default: `8265ATM>`

Usage Notes

- It is recommended that you set the prompt to the device name you specify with SET DEVICE NAME. This allows you to recognize the ATM Control Point to which you are connected when you work in remote sessions.
- The system automatically adds a blank space after the prompt so that commands entered on the console are easier to read.
- If you enter the command without specifying a prompt string, the default prompt is used.

Related Commands

SHOW TERMINAL, SAVE TERMINAL, REVERT TERMINAL

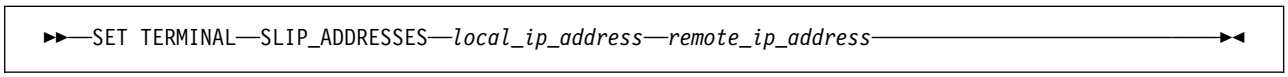
Example

```
8265ATM> set terminal prompt ATM1000:

ATM1000:
```

SET TERMINAL SLIP_ADDRESSES

Mode: Administrator
Code Card: IISP / PNNI

Use this command to specify the IP addresses to be used by the serial line (SLIP) in its point-to-point communications between the IP stack of the ATM Control Point, and the IP stack of the workstation connected to the ATM Control Point console port.



local_ip_address
Specifies the IP address to be used on the ATM Control Point side for the SLIP point-to-point communications between the workstation and the ATM Control Point.

remote_ip_address
Specifies the IP address to be used on the workstation side for the SLIP point-to-point communications between the workstation and the ATM Control Point.

Usage Notes

- A network mask is not required for SLIP.
- This command can only be used on a local configuration console. It is not available over TELNET.

Related Commands

SHOW TERMINAL, SAVE TERMINAL, REVERT TERMINAL

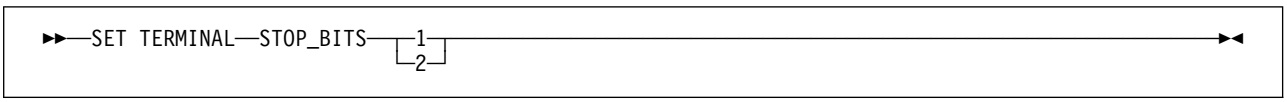
Example

```
8265ATM> set terminal slip_addresses
Enter local ip address : 9.100.86.139
Enter remote ip address : 9.100.86.138

Configuring SLIP ...
8265ATM>
```

SET TERMINAL STOP_BITS

Mode: Administrator
Code Card: IISP / PNNI

Use this command to configure the ATM Control Point to the number of stop bits used by the attached configuration console or modem. This command resets the line to an idle state.



1 | 2 Specifies the number of stop bits used for the configuration console.

Usage Notes

- The ATM Control Point registers the end of each character sent from the ATM Control Point console or attached modem as soon as one stop bit is received. The ATM Control Point must be set to the same stop bit count as the console or modem in order to communicate.
- To configure the ATM Control Point to communicate with a console or modem that has a stop bit count of 2, follow these steps:
  1. Connect a console that uses 1 stop bit. Then press Enter to access the ATM Control Point.
  2. Enter the SET TERMINAL STOP_BITS command and set the stop bit level to 2. After you reset this value, the connection to the ATM Control Point is lost.
  3. Disconnect the console and connect the second console that uses the 2 stop bits.
  4. Press Enter. Your connection to the ATM Control Point is re-established.
  5. Enter the SAVE TERMINAL command to permanently save the new stop bit setting.

Related Commands

SHOW TERMINAL, SAVE TERMINAL, REVERT TERMINAL

Examples

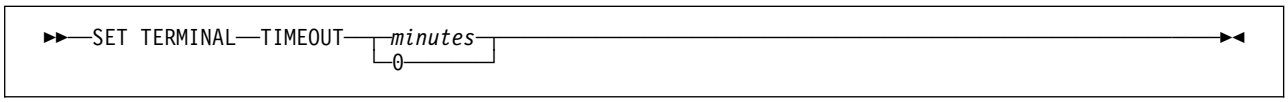
```
8265ATM> set terminal stop_bits 2

8265ATM>
```

SET TERMINAL TIMEOUT

Mode: Administrator
Code Card: IISP / PNNI

Use this command to set the number of minutes that you can remain logged on to an ATM Control Point session without making a keyboard entry. When this time period has elapsed, you are automatically logged off and your session is terminated.

This is a security measure that prevents unauthorized users from accessing and working in an open ATM Control Point session when the console is left unattended.



minutes Specifies the number of minutes before the configuration console is automatically logged-off. Values: 1 to 30 or 0 (for no automatic logoff).

Usage Notes

- If you enable the SET TERMINAL HANGUP command and have a modem attached to the console, the modem connection is also terminated.
- If the system automatically logs you off, any unsaved changes remain active. These changes are lost if you reset the ATM Control Point. To permanently save these changes, you must log back on to the ATM Control Point and enter the SAVE command.

Related Commands

SHOW TERMINAL, SAVE TERMINAL, REVERT TERMINAL

Example

The following command automatically logs you off the ATM Control Point console if no keystrokes are entered for more than two minutes:

```
8265ATM> set terminal timeout 2
```

The console beeps once. The following message is displayed if you do not save the configuration changes before the timeout expires:

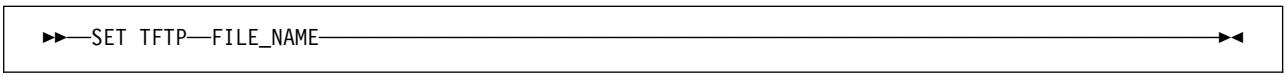
```
Parser timed out
Warning: unsaved changes.

Bye
```

Unsaved changes remain configured but not permanently saved. They will be lost at the next reset. To save them, you must re-establish connection to the ATM Control Point and enter the SAVE command.

SET TFTP FILE_NAME

Mode: Administrator
Code Card: IISP / PNNI

Use this command to specify the path name of the file that is to be transferred via the TFTP protocol with the DOWNLOAD or UPLOAD commands. After entering the command, you are prompted to enter a full path name of up to 128 alphanumeric characters (case-sensitive).



Related Commands

SHOW TFTP, SAVE TFTP, REVERT TFTP

Example — PS/2

The following example shows how to set a full path name for a PS/2 host:

```
8265ATM> set tftp file_name
Enter file name:  c:\atmsoft\v1.0-B

File name set.
8265ATM>
```

Example — AIX

The following example shows how to set a full path name for an AIX host:

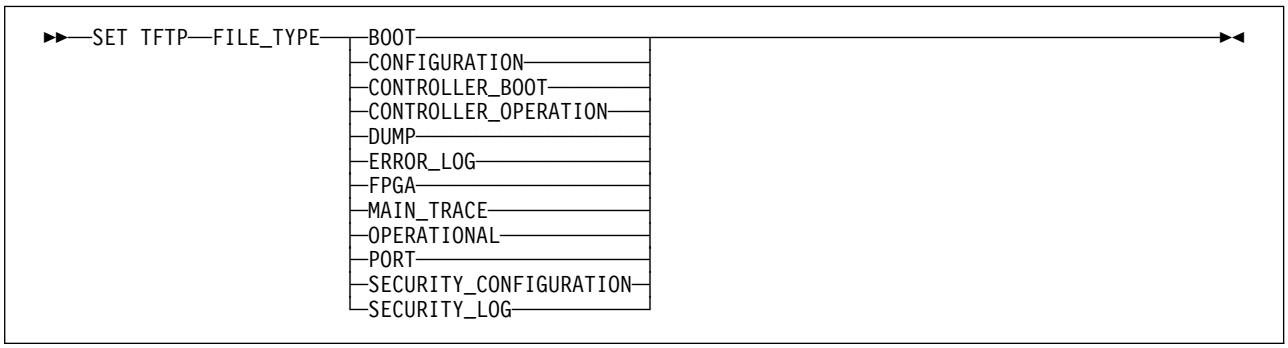
```
8265ATM> set tftp file_name
Enter file name:  /tmp/module.up

File name set.
8265ATM>
```

On the upload to the AIX host, the datagram is transmitted via the UDP socket 69 to the user ID, `nobody`.

SET TFTP FILE_TYPE

Mode: Administrator
Code Card: IISP / PNNI

Use this command to specify the type of file to be used with the DOWNLOAD and UPLOAD commands.



The file types that you can configure are as follows:

BOOT *Download:*Updates the inactive boot load module in the ATM Control Point flash EEPROM.

CONFIGURATION
*Upload:*Saves all current configuration settings to a file on the TFTP server.

*Download:*Replaces all current configuration settings with those saved on the TFTP server.

CONTROLLER_BOOT
*Download:*Updates the inactive boot load module in the controller module flash EEPROM.

CONTROLLER_OPERATION
*Download:*Updates the inactive operational load module in the controller module flash EEPROM.

DUMP *Upload:*Saves the contents of the dump buffer to a file on the TFTP server.

ERROR_LOG
*Upload:*Saves the error log to a file on the TFTP server.

FPGA *Download:*Updates the hardware picocode for the CPSW module and ATM media modules. The procedure to load hardware picocode takes from 10 to 20 minutes.

MAIN_TRACE
*Upload:*Saves the main trace log to a file on the TFTP server. (To create a main trace log, enter the command SET TRACE MAIN_TRACE.)

OPERATIONAL
*Download:*Updates the inactive operational load module in the ATM Control Point flash EEPROM.

PORT (**WAN2 module ports only**) *Download:*Updates the microcode in the selected WAN2 I/O card.

SECURITY_CONFIGURATION
*Upload:*Saves the access control address table to a file on the TFTP server.

*Download:*Replaces the current access control address table with that saved on the TFTP server.

SECURITY_LOG
*Upload:*Saves the contents of the security log to a file on the TFTP server.

Related Commands

SHOW TFTP, SAVE TFTP, REVERT TFTP

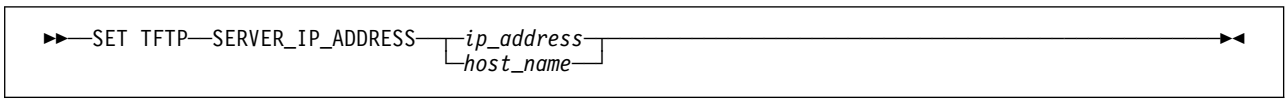
Example

```
8265ATM> set tftp file_type security

File type set.
8265ATM>
```

SET TFTP SERVER_IP_ADDRESS

Mode: Administrator
Code Card: IISP / PNNI

Use this command to configure the IP address of the TFTP server used for the DOWNLOAD and UPLOAD commands.



ip_address
IP address of the server in the format *n.n.n.n*, where *n* is a number between 0 and 255.

host_name
The name assigned to the server using the SET HOST command.

Note: Pressing '?' (help) for this parameter displays a list of available host names.

Usage Notes

- If the TFTP server is reachable via a Classical IP over ATM subnetwork as defined in RFC1577 (either directly attached or attached behind a router), or reachable via a LAN emulation network, the ATM address of the ARP server must be configured (using SET DEVICE ARP_SERVER).
- If the server is an IP workstation connected to the ATM Control Pointconsole port operating in SLIP mode, use the remote IP address that has been set up using the SET TERMINAL SLIP_ADDRESSES command as the TFTP server IP address.

  In addition, if the server is reachable via a router, the ATM Control Point must be configured with the IP address of the default gateway (using SET DEVICE DEFAULT_GATEWAY).

Related Commands

SHOW TFTP, SAVE TFTP, REVERT TFTP

Example

```
8265ATM> set tftp server_ip_address 125.36.58.117

TFTP server set.
8265ATM>
```

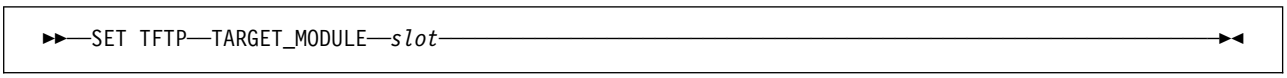
The following example shows the use of the host name in place of the IP address.

```
8265ATM> set tftp server_ip_address ATM02

TFTP server set.
8265ATM>
```

SET TFTP TARGET_MODULE

Mode: Administrator
Code Card: IISP / PNNI

Use this command to specify the CPSW module or ATM media module to receive a hardware picocode update using the DOWNLOAD command.



slot Slot number where the target module is installed.

Usage Notes

- This command is only available after TFTP FILE_TYPE is set to FPGA.

Related Commands

SHOW TFTP, SAVE TFTP, REVERT TFTP

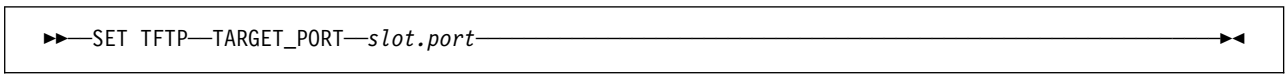
Example

```
8265ATM> set tftp target_module 1

Target module set.

8265ATM>
```

SET TFTP TARGET_PORT

Mode: Administrator
Code Card: IISP / PNNI

Use this command to specify the port number of the WAN2 I/O card that will receive an I/O card microcode update using the DOWNLOAD command.



slot.port Slot and port number where the WAN2 I/O card is installed.

Usage Notes

- This command is only available after TFTP FILE_TYPE is set to PORT.

Related Commands

SHOW TFTP, SAVE TFTP, REVERT TFTP

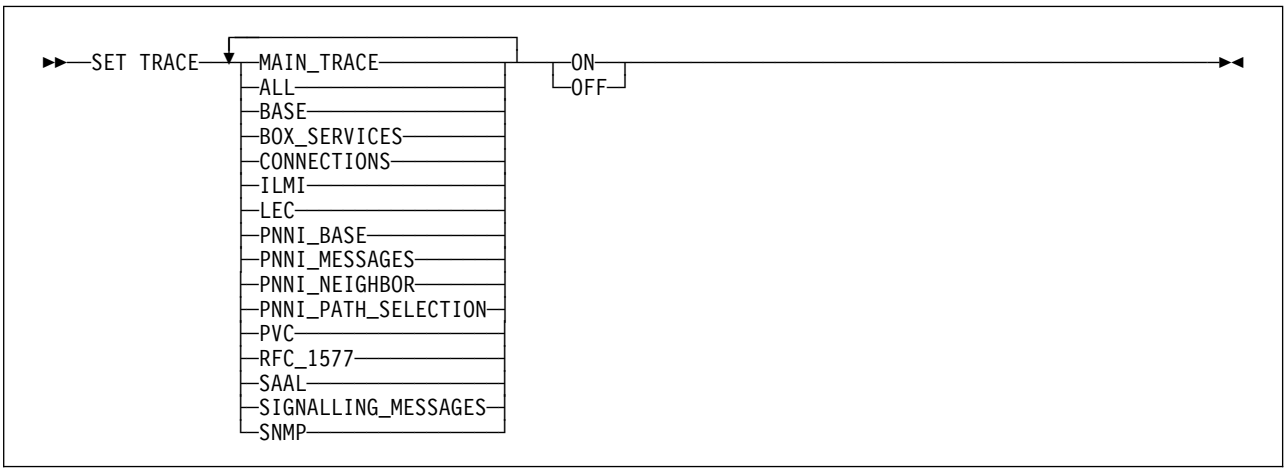
Example

```
8265ATM> set tftp target_port 3.2

Target port set.

8265ATM>
```

SET TRACE

Mode: Administrator
Code Card: IISP / PNNI

Use this command to enable and disable the recording of traces in the ATM Control Point trace log.



ON | OFF Starts and stops the trace recording.

MAIN_TRACE
Specifies that the recording of data from the selected trace categories is to be start (ON) or stop (OFF).

ALL Specifies that all trace categories are to start (ON) or stop (OFF).

BASE Selects (ON) and deselects (OFF) all other traces not included in the other trace categories.

BOX_SERVICES
Selects (ON) and deselects (OFF) tracing of configuration services and box survey.

CONNECTIONS
Selects (ON) and deselects (OFF) tracing of connections transactions.

ILMI Selects (ON) and deselects (OFF) tracing of ILMI transactions.

LEC Selects (ON) and deselects (OFF) tracing of LEC transactions.

PNNI_BASE
Selects (ON) and deselects (OFF) tracing of PNNI base transactions.

PNNI_MESSAGES
Selects (ON) and deselects (OFF) tracing of PNNI messages.

PNNI_NEIGHBOR
Selects (ON) and deselects (OFF) tracing of PNNI neighbor transactions.

PNNI_PATH_SELECTION
Selects (ON) and deselects (OFF) tracing of PNNI path selection transactions.

PVC Selects (ON) and deselects (OFF) tracing of PVC transactions.

RFC_1577
Selects (ON) and deselects (OFF) tracing of RFC_1577 transactions.

SAAL Selects (ON) and deselects (OFF) tracing of SAAL transactions.

SIGNALLING_MESSAGES
Selects (ON) and deselects (OFF) tracing of signalling messages.

SNMP Selects (ON) and deselects (OFF) tracing of SNMP transactions.

Usage Notes

- To save the trace log to a file on a server, use the UPLOAD command with TFTP FILE_TYPE is set to MAIN_TRACE.

Related Commands

SHOW TRACE, SAVE ALL, REVERT ALL

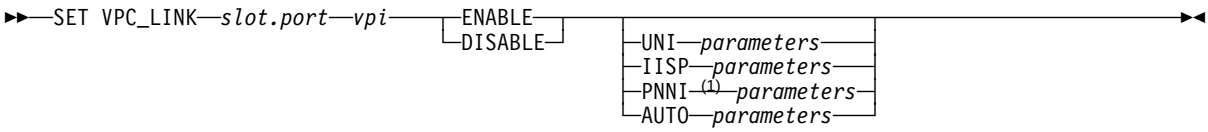
Example

```
8265ATM> set trace main_trace off

Trace set.
8265ATM> set trace signalling pnni_path_selection connections on

Trace set.
8265ATM> show trace
 Main trace is OFF.
                base trace will be off when main trace is on.
 signalling messages trace will be on when main trace is on.
                ilmi trace will be off when main trace is on.
                 lec trace will be off when main trace is on.
           pnni_base trace will be off when main trace is on.
       pnni_messages trace will be off when main trace is on.
       pnni_neighbor trace will be off when main trace is on.
 pnni_path_selection trace will be on when main trace is on.
                 pvc trace will be off when main trace is on.
            RFC 1577 trace will be off when main trace is on.
                saal trace will be off when main trace is on.
         connections trace will be on when main trace is on.
                snmp trace will be off when main trace is on.
        box services trace will be off when main trace is on.
8265ATM> set trace main_trace on

Trace set.
8265ATM>
```

SET VPC_LINK

Mode: Administrator
Code Card: IISP / PNNI

Use the SET VPC parameters to define, enable, and disable a VPC on any VOID or PUBLIC_UNI ATM port, and to configure its interface.



Note:
1 PNNI Code Card only.

slot Slot number of the ATM media module.

port ATM port number.

vpi Specifies the VPI for this VPC link.

ENABLE | DISABLE
Enables and disables the selected VPC link.

UNI | IISP | PNNI | AUTO
Sets the interface type for the selected VPC link (default = UNI).

For optional *parameters* available for interface type:

UNI See “UNI VPC Parameters” on page 111.

IISP See “IISP VPC Parameters” on page 113.

PNNI See “PNNI VPC Parameters” on page 115. (**PNNI Code Card only.**)

AUTO Enables automatic configuration of the interface type. (UNI, IISP, or PNNI). See “AUTO VPC Parameters” on page 117.

For more information on ATM interfaces, see the *8265 User's Guide*.

Related Commands

SHOW VPC_LINK, CLEAR VPC_LINK, SAVE MODULE_PORT, REVERT MODULE_PORT

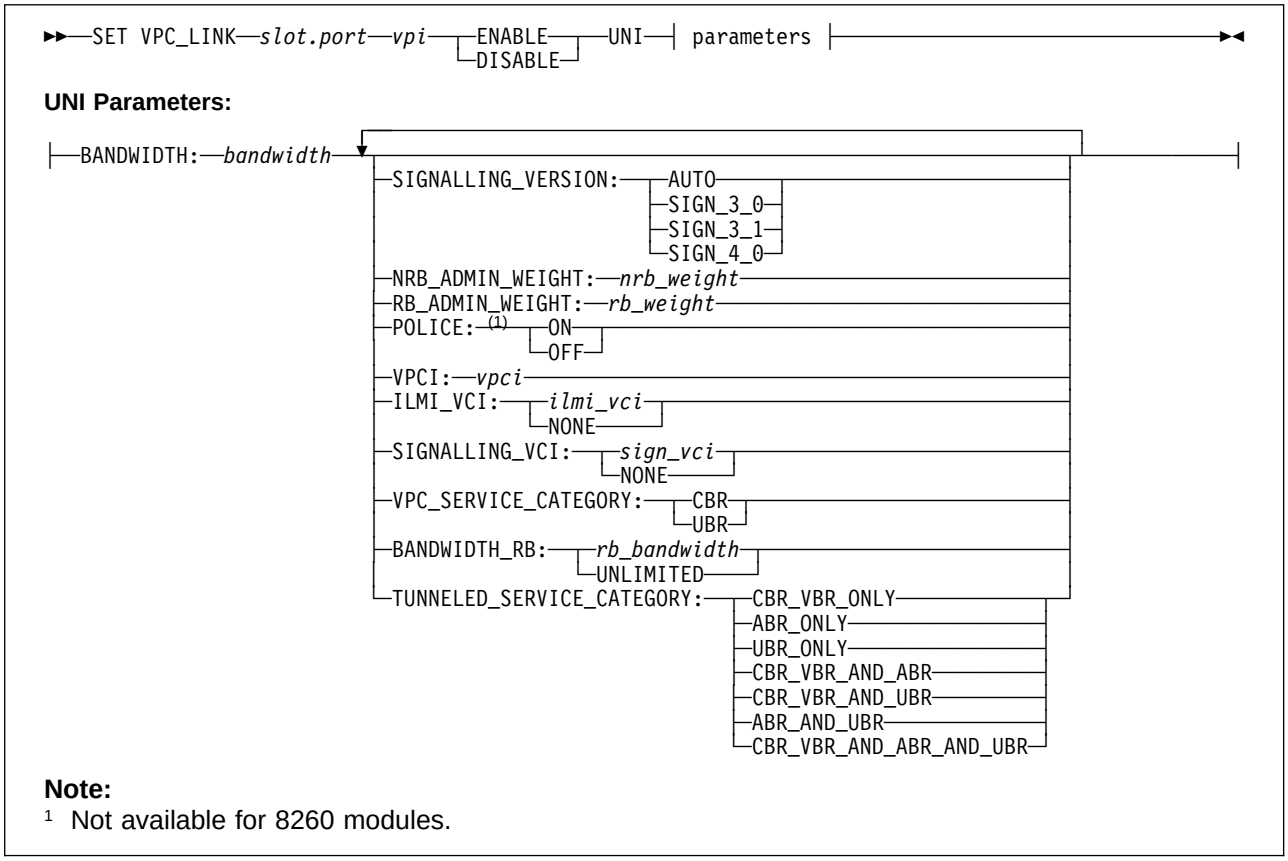
Example

```
8265ATM> set vpc_link 4.2 5 enable uni bandwidth:526 rb_admin_weight:5040
Accepted
8265ATM> show vpc_link
Enter module: all

       VPI :Type  Mode      Status
-------------------------------------------------------------------------------
 4.02     5:UNI enable  DOWN:port not ready
8265ATM>
```

UNI VPC Parameters

Code Card: IISP / PNNI

The following parameters for the SET VPC command are used to configure VPCs with UNI interface.



Note:
1 Not available for 8260 modules.

BANDWIDTH: bandwidth
The bandwidth (in Kbps) to be allocated for connections over the selected VPC. The sum of VPC bandwidths cannot exceed the port bandwidth. This setting is mandatory.

SIGNALLING_VERSION:
Specifies the signalling protocol version to use on this VPC.

AUTO (*ILMI only*) Use automatic detection to determine the signalling protocol version (UNI 3.0 , 3.1, or 4.0) on this VPC. (Default)

SIGN_3_0
Use UNI 3.0 signalling only on this VPC.

SIGN_3_1
Use UNI 3.1 signalling only on this VPC.

SIGN_4_0
Use UNI 4.0 signalling only on this UNI port.

NRB_ADMIN_WEIGHT: nrb_weight
A 4-byte value that specifies the relative ranking of the selected VPC's link. (Default = 5040)

RB_ADMIN_WEIGHT: rb_weight
A 4-byte value that specifies the relative ranking of the selected VPC's link. (Default = 5040)

SET VPC_LINK

POLICE: ON | OFF

(**CBR and VBR traffic types only**) Enables and disables Policing on the selected VPC. (**Not available for 8260 modules.**)

VPCI: vpci

Specifies the virtual path connection identifier. (Range 0 - 255)

ILMI_VCI:

Specifies:

ilmi_vci The *vci* of the ILMI channel. (Default = 16)

NONE ILMI disabled on this VPC.

If you disable ILMI, then you cannot use signalling version AUTO.

SIGNALLING_VCI:

Specifies:

sign_vci The *vci* of the Signalling channel. (Default = 5)

NONE Signalling disabled on this VPC.

VPC_SERVICE_CATEGORY:

Selects the traffic type provided by the WAN.

CBR Traffic shaping is active.. (**Not available for 8260 modules.**)
UBR Traffic shaping is inactive and only UBR traffic is allowed through this VPC.

BANDWIDTH_RB:

(With VPC_SERVICE_CATEGORY:CBR only) Defines the maximum bandwidth that can be allocated for Reserved Bandwidth (RB) connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) over the selected VPC.

UNLIMITED Allocates the maximum setting for Reserved Bandwidth: 85% of VPC bandwidth.

rb_bandwidth Specifies the maximum bandwidth (in Kbps).

Notes:

1. The value of *rb_bandwidth* must be less than or equal to the VPC bandwidth.
2. Setting *rb_bandwidth* equal to the VPC bandwidth means that no Unspecified Bit Rate (UBR) or Available Bit Rate (ABR) connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) can be established on the selected VPC.
3. Setting *rb_bandwidth* equal to zero means that no RB connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) can be established on the selected VPC.

TUNNELED_SERVICE_CATEGORY:

(With VPC_SERVICE_CATEGORY:CBR only) Activates traffic shaping and defines which traffic types can be chosen by connections established on this VPC.

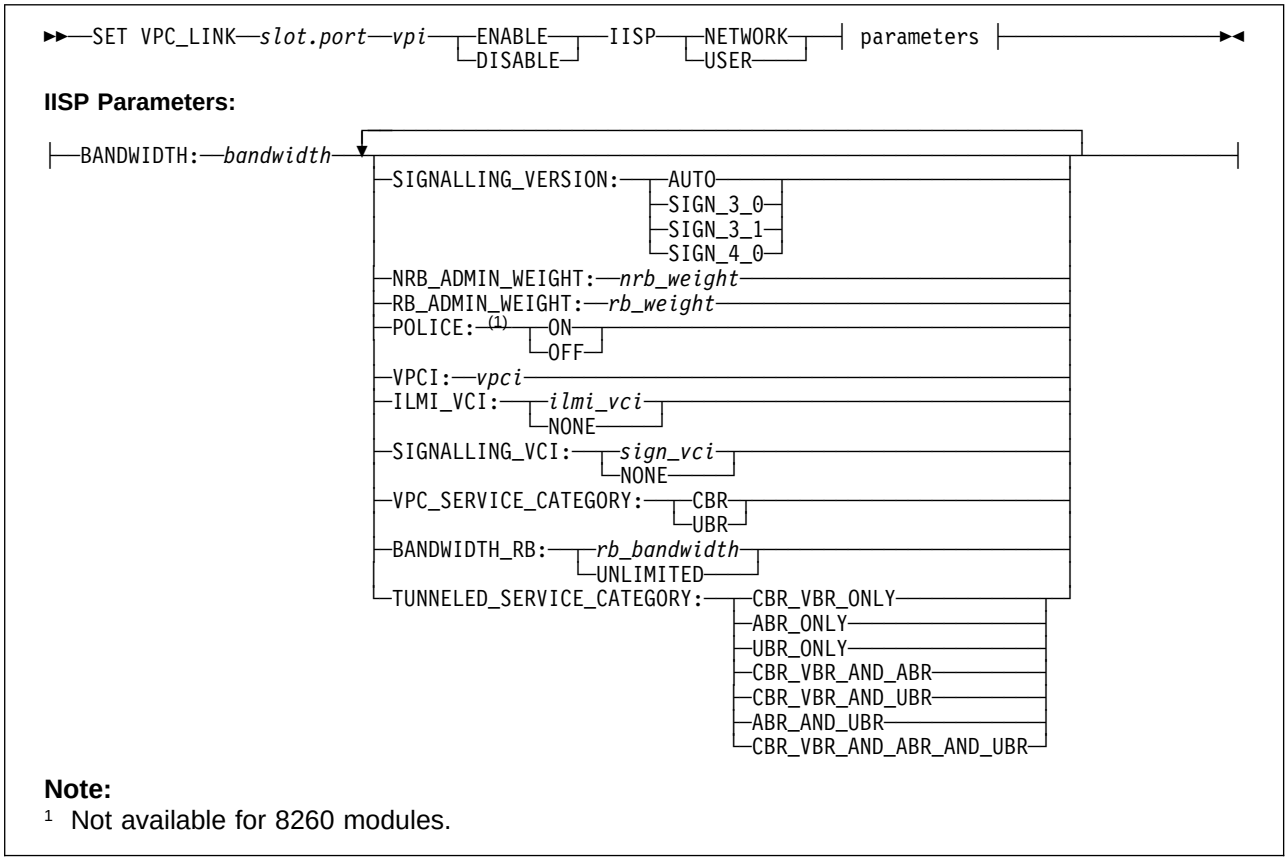
CBR_VBR_ONLY
ABR_ONLY
UBR_ONLY
CBR_VBR_AND_ABR
CBR_VBR_AND_UBR
ABR_AND_UBR
CBR_VBR_AND_ABR_AND_UBR

If more than one type of traffic is defined (the last four options) traffic is limited to 50% of the module speed. (**Not available for 8260 modules.**)

IISP VPC Parameters

Code Card: IISP / PNNI

The following parameters for the SET VPC command are used to configure VPCs with IISP interface.



Note:
1 Not available for 8260 modules.

BANDWIDTH: bandwidth
The bandwidth (in Kbps) to be allocated for connections over the selected VPC. The sum of VPC bandwidths cannot exceed the port bandwidth. This setting is mandatory.

SIGNALLING_VERSION:
Specifies the signalling protocol version to use on this VPC.

AUTO (*ILMI only*) Use automatic detection to determine the signalling protocol version (UNI 3.0 , 3.1, or 4.0) on this VPC. (Default)

SIGN_3_0
Use UNI 3.0 signalling only on this VPC.

SIGN_3_1
Use UNI 3.1 signalling only on this VPC.

SIGN_4_0
Use UNI 4.0 signalling only on this UNI port.

NRB_ADMIN_WEIGHT: nrb_weight
A 4-byte value that specifies the relative ranking of the selected VPC's link. (Default = 5040)

RB_ADMIN_WEIGHT: rb_weight
A 4-byte value that specifies the relative ranking of the selected VPC's link. (Default = 5040)

SET VPC_LINK

POLICE: ON | OFF

(**CBR and VBR traffic types only**) Enables and disables Policing on the selected VPC. (**Not available for 8260 modules.**)

VPCI: vpci

Specifies the virtual path connection identifier. (Range 0 - 255)

ILMI_VCI:

Specifies:

ilmi_vci The *vci* of the ILMI channel. (Default = 16)

NONE ILMI disabled on this VPC.

If you disable ILMI, then you cannot use signalling version AUTO.

SIGNALLING_VCI:

Specifies:

sign_vci The *vci* of the Signalling channel. (Default = 5)

NONE Signalling disabled on this VPC.

VPC_SERVICE_CATEGORY:

Selects the traffic type provided by the WAN.

CBR Traffic shaping is active. (**Not available for 8260 modules.**)
UBR Traffic shaping is inactive and only UBR traffic is allowed through this VPC.

BANDWIDTH_RB:

(With VPC_SERVICE_CATEGORY:CBR only) Defines the maximum bandwidth that can be allocated for Reserved Bandwidth (RB) connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) over the selected VPC.

UNLIMITED Allocates the maximum setting for Reserved Bandwidth: 85% of VPC bandwidth.

rb_bandwidth Specifies the maximum bandwidth (in Kbps).

Notes:

1. The value of *rb_bandwidth* must be less than or equal to the VPC bandwidth.
2. Setting *rb_bandwidth* equal to the VPC bandwidth means that no Unspecified Bit Rate (UBR) or Available Bit Rate (ABR) connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) can be established on the selected VPC.
3. Setting *rb_bandwidth* equal to zero means that no RB connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) can be established on the selected VPC.

TUNNELED_SERVICE_CATEGORY:

(With VPC_SERVICE_CATEGORY:CBR only) Activates traffic shaping and defines which traffic types can be chosen by connections established on this VPC.

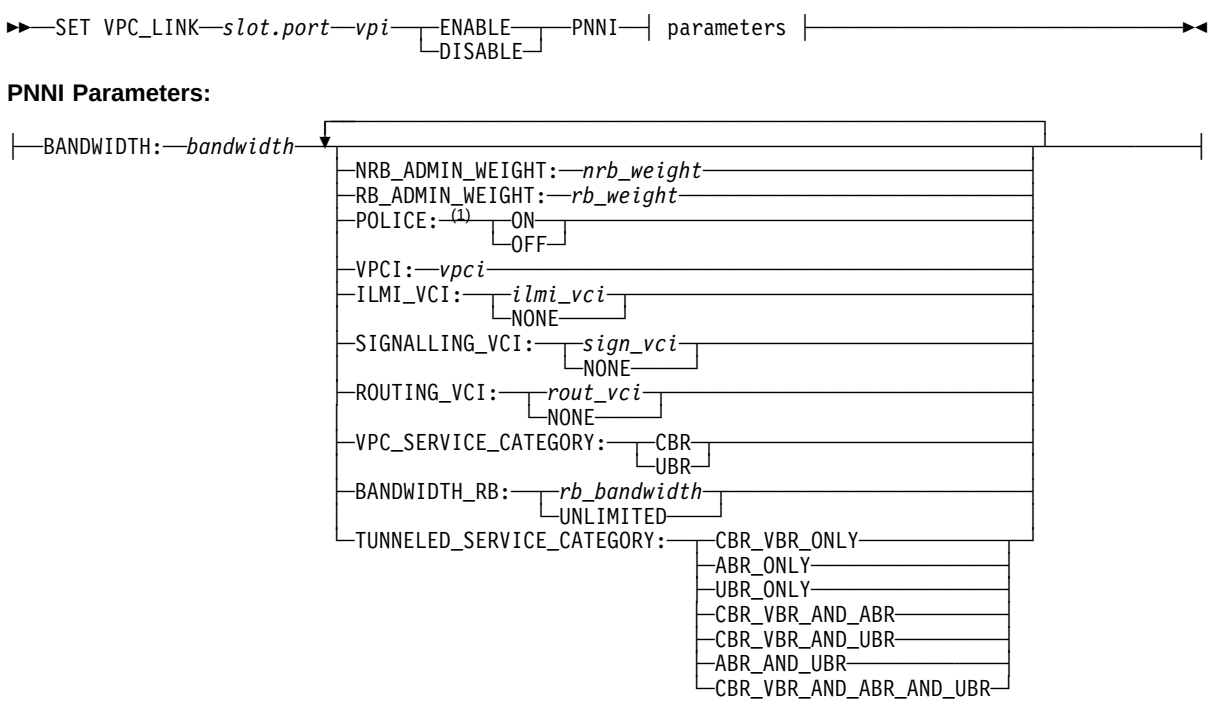
CBR_VBR_ONLY
ABR_ONLY
UBR_ONLY
CBR_VBR_AND_ABR
CBR_VBR_AND_UBR
ABR_AND_UBR
CBR_VBR_AND_ABR_AND_UBR

If more than one type of traffic is defined (the last four options) traffic is limited to 50% of the module speed. (**Not available for 8260 modules.**)

PNNI VPC Parameters

Code Card: PNNI only

The following parameters for the SET VPC command are used to configure VPCs with PNNI interface.



Note:
[1] Not available for 8260 modules.

BANDWIDTH: bandwidth
The bandwidth (in Kbps) to be allocated for connections over the selected VPC. The sum of VPC bandwidths cannot exceed the port bandwidth. This setting is mandatory.

NRB_ADMIN_WEIGHT: nrb_weight
A 4-byte value that specifies the relative ranking of the selected VPC's link. (Default = 5040)

RB_ADMIN_WEIGHT: rb_weight
A 4-byte value that specifies the relative ranking of the selected VPC's link. (Default = 5040)

POLICE: ON | OFF
(**CBR and VBR traffic types only**) Enables and disables Policing on the selected VPC. (**Not available for 8260 modules.**)

VPCI: vpci
Specifies the virtual path connection identifier. (Range 0 - 255)

ILMI_VCI:
Specifies:

ilmi_vci The *vci* of the ILMI channel. (Default = 16)

NONE ILMI disabled on this VPC.

If you disable ILMI, then you cannot use signalling version AUTO.

SET VPC_LINK

SIGNALLING_VCI:
Specifies:

sign_vci The *vci* of the Signalling channel. (Default = 5)

NONE Signalling disabled on this VPC.

ROUTING_VCI:
Specifies:

rout_vci The *vci* of the Routing channel. (Default = 18)

NONE Routing disabled on this VPC.

VPC_SERVICE_CATEGORY:
Selects the traffic type provided by the WAN.

CBR Traffic shaping is active.. (**Not available for 8260 modules.**)
UBR Traffic shaping is inactive and only UBR traffic is allowed through this VPC.

BANDWIDTH_RB:
(With VPC_SERVICE_CATEGORY:CBR only) Defines the maximum bandwidth that can be allocated for Reserved Bandwidth (RB) connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) over the selected VPC.

UNLIMITED Allocates the maximum setting for Reserved Bandwidth: 85% of VPC bandwidth.

rb_bandwidth Specifies the maximum bandwidth (in Kbps).

Notes:

1. The value of *rb_bandwidth* must be less than or equal to the VPC bandwidth.
2. Setting *rb_bandwidth* equal to the VPC bandwidth means that no Unspecified Bit Rate (UBR) or Available Bit Rate (ABR) connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) can be established on the selected VPC.
3. Setting *rb_bandwidth* equal to zero means that no RB connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) can be established on the selected VPC.

TUNNELED_SERVICE_CATEGORY:
(With VPC_SERVICE_CATEGORY:CBR only) Activates traffic shaping and defines which traffic types can be chosen by connections established on this VPC.

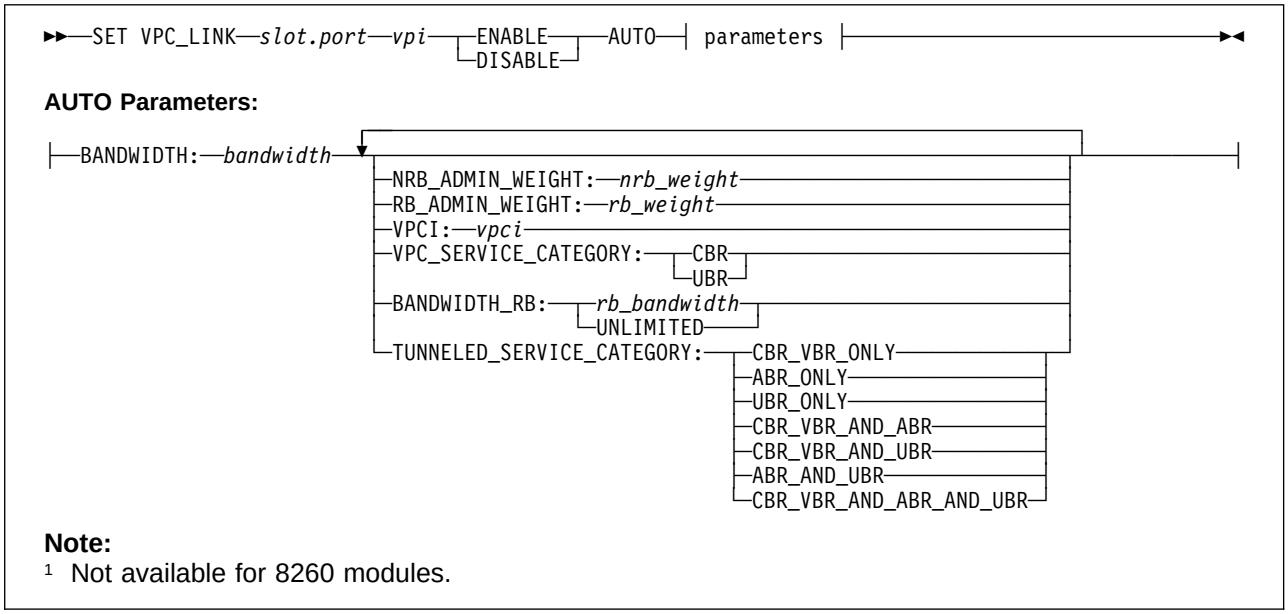
CBR_VBR_ONLY
ABR_ONLY
UBR_ONLY
CBR_VBR_AND_ABR
CBR_VBR_AND_UBR
ABR_AND_UBR
CBR_VBR_AND_ABR_AND_UBR

If more than one type of traffic is defined (the last four options) traffic is limited to 50% of the module speed. (**Not available for 8260 modules.**)

AUTO VPC Parameters

Code Card: IISP / PNNI

The following parameters for the SET VPC command are used to configure VPCs with AUTO interface.



BANDWIDTH: bandwidth
The bandwidth (in Kbps) to be allocated for connections over the selected VPC. The sum of VPC bandwidths cannot exceed the port bandwidth. This setting is mandatory.

NRB_ADMIN_WEIGHT: nrb_weight
A 4-byte value that specifies the relative ranking of the selected VPC's link. (Default = 5040)

RB_ADMIN_WEIGHT: rb_weight
A 4-byte value that specifies the relative ranking of the selected VPC's link. (Default = 5040)

VPCI: vpci
Specifies the virtual path connection identifier. (Range 0 - 255)

VPC_SERVICE_CATEGORY:
Selects the traffic type provided by the WAN.

CBR Traffic shaping is active.. (**Not available for 8260 modules.**)
UBR Traffic shaping is inactive and only UBR traffic is allowed through this VPC.

BANDWIDTH_RB:
(With VPC_SERVICE_CATEGORY:CBR only) Defines the maximum bandwidth that can be allocated for Reserved Bandwidth (RB) connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) over the selected VPC.

UNLIMITED Allocates the maximum setting for Reserved Bandwidth: 85% of VPC bandwidth.

rb_bandwidth Specifies the maximum bandwidth (in Kbps).

Notes:

1. The value of *rb_bandwidth* must be less than or equal to the VPC bandwidth.
2. Setting *rb_bandwidth* equal to the VPC bandwidth means that no Unspecified Bit Rate (UBR) or Available Bit Rate (ABR) connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) can be established on the selected VPC.
3. Setting *rb_bandwidth* equal to zero means that no RB connections (CBR, rtVBR, nrtVBR, ABR MCR≠0) can be established on the selected VPC.

TUNNELED_SERVICE_CATEGORY:

(With VPC_SERVICE_CATEGORY:CBR only) Activates traffic shaping and defines which traffic types can be chosen by connections established on this VPC.

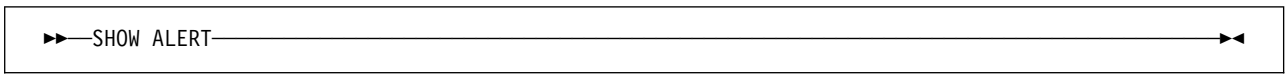
CBR_VBR_ONLY
ABR_ONLY
UBR_ONLY
CBR_VBR_AND_ABR
CBR_VBR_AND_UBR
ABR_AND_UBR
CBR_VBR_AND_ABR_AND_UBR

If more than one type of traffic is defined (the last four options) traffic is limited to 50% of the module speed. (**Not available for 8260 modules.**)

SHOW ALERT

Mode: User / Administrator
Code Card: IISP / PNNI

Use this command to display the current alert settings configured for the ATM Control Point with the SET ALERT command.



Related Commands

SHOW ALERT, SAVE ALERT, REVERT ALERT

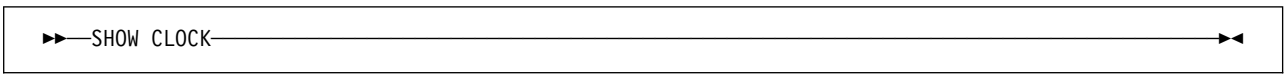
Example

```
8265ATM> show alert
Alert AUTHENTICATION set to NOTRAP NODISPLAY
Alert     CHANGE     set to NOTRAP NODISPLAY
Alert     HELLO      set to NOTRAP NODISPLAY
8265ATM>
```

SHOW CLOCK

Mode: User / Administrator
Code Card: IISP / PNNI

Use this command to display the current date and time. The original starting time for the ATM Control Pointwas configured with the SET CLOCK command.



Related Commands

SET CLOCK

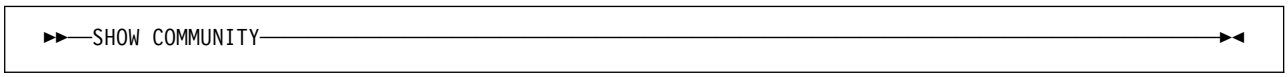
Example

```
8265ATM> show clock
Clock is set to 09:01 Friday 23 Jan 1997.

8265ATM>
```

SHOW COMMUNITY

Mode: User / Administrator
Code Card: IISP / PNNI

Use this command to display the current community settings configured for the ATM Control Point.



Related Commands

SET COMMUNITY, CLEAR COMMUNITY, SAVE ALL, REVERT ALL

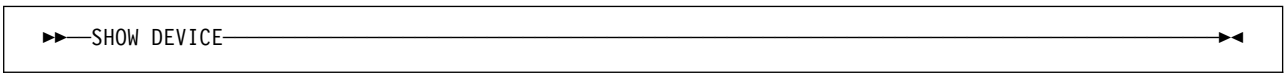
Example

```
8265ATM> show community
Index Community_Name  IP_Address            Accesses
--------------------------------------------------------------------------------
   1  Admin           2.13.34.24        Read -  Write - Trap
   2  temp            24.137.24.25      Read -  Write - Trap
   3  man             35.27.135.40      Read -  Write - Trap
7 entries empty.
```

SHOW DEVICE

Mode: User / Administrator
Code Card: IISP / PNNI

Use this command to display configuration information about the ATM Control Point.



Related Commands

SET DEVICE commands, SAVE DEVICE, REVERT DEVICE

Example

The information displayed in the reply is described below.

```
8265ATM> show device
8265 ATM Control Point and Switch Module
Name : 8265ATM>
Location :
8265 team 2

For assistance contact :
 5 Dec 1997

Manufacture id: 930
Part Number: 02L3099 EC Level: F12445
Boot EEPROM version: 3.a
Flash EEPROM version: d.3.3.c
Flash EEPROM backup version: d.3.4.0
Last Restart : 15:51:51 Mon 8 Dec 1997 (Restart Count: 7)

A-CPSW
--------------------------------------------------------------------------------
 > Subnet ethernet: Up
   IP address: 9.100.109.203. Subnet mask: FF.FF.FF.00
   MAC Address: 020000000002 (User defined)
 > Subnet atm: Up
 IP address: 9.100.87.203. Subnet mask: FF.FF.FF.00

 > Subnet lan emulation ethernet/802.3
   Not Started
   Config ELAN Name :""
   Actual ELAN Name :""
   MAC Address: 0006291F0000
   IP address : 0.0.0.0. Subnet mask: 00.00.00.00
   ATM address    :39.99.99.99.99.99.99.00.00.66.66.0A.02.40.82.65.00.00.00.00
   Config LES addr:none
   Actual LES addr:00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00
   BUS ATM address:00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00
   Config LECS add:none
   Actual LECS add:00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00
   LEC Identifier: 0. Maximum Transmission Unit: 0
```

```
 > Subnet lan emulation token ring
   Not Started
   Config ELAN Name :""
   Actual ELAN Name :""
   MAC Address: 000629770000
   IP address : 0.0.0.0. Subnet mask: 00.00.00.00
   ATM address    :39.99.99.99.99.99.99.00.00.66.66.0A.02.40.82.65.00.00.00.01
   Config LES addr:none
   Actual LES addr:00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00
   BUS ATM address:00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00
   Config LECS add:none
   Actual LECS add:00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00
   LEC Identifier: 0. Maximum Transmission Unit: 0

Default Gateway : OK
--------------------------------------------------------------------------------
 IP address: 9.100.109.1

ARP Server:
--------------------------------------------------------------------------------
 ATM address: 39.99.99.99.99.99.99.00.00.66.66.0A.02.00.80.05.A9.91.3E.00

Device configured for PNNI port capability.
Dynamic RAM size is 32 MB. Migration: off. Diagnostics: enabled.
Device defined as primary.
GSMP : OFF
Q2931 : 8192 parties and 24576 branches

Duplicate ATM addresses are allowed.
Accounting is disabled.
8265ATM>
```

Name Name assigned to ATM Control Point via the SET DEVICE NAME command.

Location Physical location of ATM Control Pointentered with the SET DEVICE LOCATION command.

For assistance contact
Service contact information entered with the SET DEVICE CONTACT command.

Boot EEPROM version
Software version number of the Boot load module.

Flash EEPROM version
Software version number of the active Operational load module.

Flash EEPROM backup version
Software version number of the backup Operational load module.

Last restart
Time of the last restart of an ATM Control Point. The number of restarts is shown by the Restart Count.

Subnet ethernet
Status of the Ethernet network connected by the CPSW Ethernet port.

IP address
IP address of the ATM Control Point in the Ethernet network (configured with the SET DEVICE IP_ADDRESS ETH command).

Subnet mask
Subnet mask used by the ATM Control Point in the Ethernet network (configured with the SET DEVICE IP_ADDRESS ETH command).

SHOW DEVICE

MAC address
MAC address of the ATM Control Point in the Ethernet network (configured with the SET DEVICE ETHERNET_MAC_ADDRESS command).

Subnet ATM
Status of the Classical IP Over ATM subnetwork.

IP address
IP address of the ATM Control Point on the Classical IP over ATM subnetwork (configured with the SET DEVICE IP_ADDRESS ATM command).

Subnet mask
Subnet mask used by the ATM Control Pointon the Classical IP over ATM subnetwork (configured with the SET DEVICE IP_ADDRESS ATM command).

Subnet lan emulation ethernet/802.3
Status of the Ethernet emulated LAN subnetwork

Subnet lan emulation token ring
Status of the token ring emulated LAN subnetwork

Config ELAN name
The name of the emulated LAN (configured with the SET DEVICE LAN_EMULATION_CLIENT command).

Actual ELAN name
The actual name of the emulated LAN that the LEC is connected to.

MAC address
MAC address of the ATM Control Point LEC in the LE subnetwork (configured with the SET DEVICE LAN_EMULATION_CLIENT command).

IP address
IP address of the ATM Control Point in the LE subnetwork (configured with the SET DEVICE LAN_EMULATION_CLIENT command).

Subnet mask
Subnet mask used by the ATM Control Point in the LE subnetwork (configured with the SET DEVICE LAN_EMULATION_CLIENT command).

ATM address
ATM address of the ATM Control Point LEC in the LE subnetwork.

Config LES address
LES ATM address defined with the SET DEVICE LAN_EMULATION_CLIENT command.

Actual LES address
Actual LES ATM address to which the ATM Control Point LEC is connected.

BUS ATM address
ATM address of the BUS to which the ATM Control Point LEC is connected (assigned by the LES).

Config LECS address
LECS ATM address defined with the SET DEVICE LAN_EMUL CONFIGURATION_SERVER command.

Actual LECS address
Actual LECS ATM address which will be used to find the LES ATM address.

LEC Identifier
Identifier of the ATM Control PointLEC in its emulated LAN (assigned by the LES).

Maximum Transmission Unit
The MTU size for the emulated LAN.

Default Gateway
Status of the router that is used when the ATM Control Point cannot find an IP address on a local IP network (configured with the SET DEVICE DEFAULT_GATEWAY command).

Default gateway IP address
IP address of the default gateway router (configured with the SET DEVICE DEFAULT_GATEWAY command).

ARP server ATM address
ATM address of the ARP server, (for Classical IP only, configured with the SET DEVICE ARP_SERVER command).

Device configured...
Indicates whether PNNI functions are supported.

Dynamic RAM size
The amount of Random Access Memory (RAM) currently plugged and identified on the CPSW.

Diagnostics
Indicates whether full memory diagnostics are run when the switch is powered ON or when the CPSW module reboots (configured the with SET DEVICE DIAGNOSTICS command).

All other diagnostics take a limited time and are run independently of this parameter.

Device defined as...
The role of the CPSW in a redundant ATM subsystem, as set by the SET DEVICE ROLE or SET ROLE command.

Q2931: Indicates the current Q2931 settings (configured with the SET DEVICE CONFIG_FUNCTIONS command).

Duplicate ATM addresses
Indicates whether duplicate ATM addresses are allowed (configured with the SET DEVICE DUPLICATE_ATM_ADDRESSES command).

Accounting
Indicates whether accounting has been enabled or disabled (configured with the SET DEVICE ACCOUNTING command).

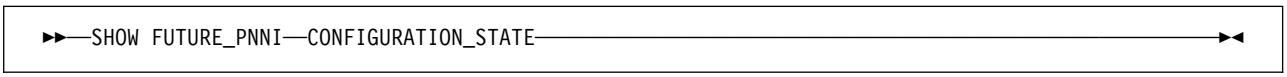
SHOW FUTURE_PNNI CONFIGURATION_STATE

Mode: User / Administrator
Code Card: PNNI only

This command shows whether:

- Any uncommitted changes are pending in the future PNNI configuration
- The active PNNI configuration has been saved to Non-Volatile Storage (NVS).

This command is identical to the SHOW PNNI CONFIGURATION_STATE command. See the *8265 User's Guide* for further information on PNNI settings.



Related Commands

SET PNNI commands, COMMIT PNNI, UNCOMMIT PNNI, SAVE PNNI, REVERT PNNI

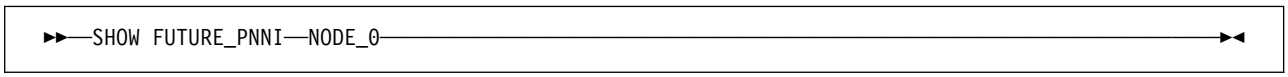
Example

```
8265ATM> show future_pnni configuration_state
There are uncommited changes pending, commit will cause a reset.
Active configuration is saved.
8265ATM>
```

SHOW FUTURE_PNNI NODE_0

Mode: User / Administrator
Code Card: IISP / PNNI

This command shows the current Node 0 settings in the future PNNI configuration.



Related Commands

SET PNNI NODE_0 commands, COMMIT PNNI, UNCOMMIT PNNI, SAVE PNNI, REVERT PNNI

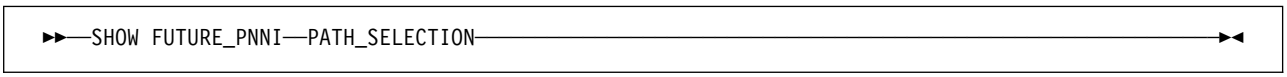
Example

```
8265ATM> show future_pnni node_0
---------------------- Node  0 ----------------------
  ATM addr : 39.99.99.99.99.99.99.00.00.99.99.01.50.50.50.50.50.50.51.00
  Level Identifier :  96 (24 half-bytes and 0 bits)
  PGroup Id: 60.39.99.99.99.99.99.00.00.88.88.11
  Node Id  : 60.A0.39.99.99.99.99.99.00.00.99.99.01.50.50.50.50.50.50.51.00
  Unrestricted Transit.
8265ATM>
```

SHOW FUTURE_PNNI PATH_SELECTION

Mode: User / Administrator
Code Card: PNNI only

This command shows the current ABR and UBR path selection settings in the future PNNI configuration.



Related Commands

SET PNNI PATH_SELECTION, COMMIT PNNI, UNCOMMIT PNNI, SAVE PNNI, REVERT PNNI

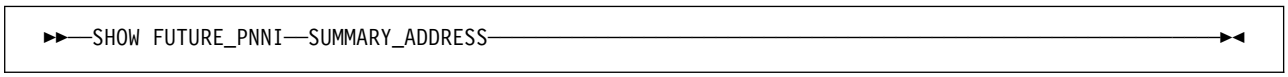
Example

```
8265ATM> show future_pnni path_selection
Unspecified bit rate : widest path.
  Available bit rate : on demand path.
8265ATM>
```

SHOW FUTURE_PNNI SUMMARY_ADDRESS

Mode: User / Administrator
Code Card: PNNI only

This command shows the current list of summary addresses in the future PNNI configuration.



Related Commands

SET PNNI NODE_0 SUMMARY_ADDR, CLEAR PNNI SUMMARY_ADDRESS, COMMIT PNNI, UNCOMMIT PNNI, SAVE PNNI, REVERT PNNI

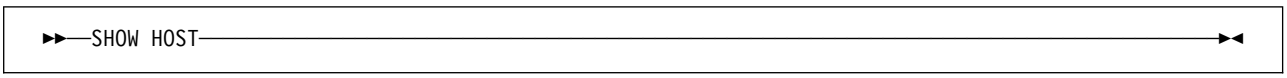
Example

```
8265ATM> show future_pnni summary_address
------ Internal Summary Addresses of Node 0------
  Entry 1-Prefix Length=104, non default, advertised :
    39.99.99.99.99.99.99.00.00.99.99.01.50.  .  .  .  .  .  .
18 empty entries
8265ATM>
```

SHOW HOST

Mode: User / Administrator
Code Card: IISP / PNNI

This command shows the current list of host names assigned to IP addresses, as defined with the SET HOST command.



Related Commands

SET HOST, CLEAR HOST, SAVE HOST, REVERT HOST

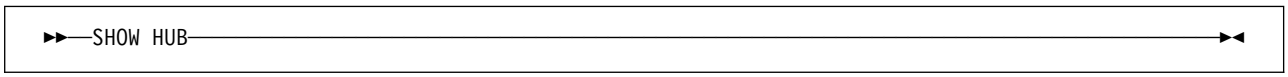
Example

```
8265ATM> show host
Index Host_Name                IP_Address
-------------------------------------------------------------------------------
   1  lab3                     9.100.109.203
   2  lab4                     9.100.109.204
18 entries empty.
```

SHOW HUB

Mode: User / Administrator
Code Card: IISP / PNNI

Use this command to display information about the switch.



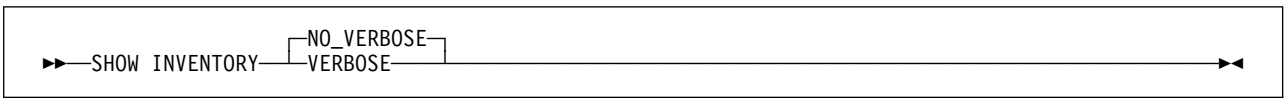
Example

```
8265ATM> show hub

Hub Information:
    Hub Type:  8265-S17

Backplane Information:

    Backplane Type                              Revision
    --------------                              --------
    Load-Sharing Power Distribution Board       0
    SwitchChannel Backplane                     0

Power Supply Information:

    Power Supply    Status              Model Number
    ------------    ------              ------------
     1              OKAY                8265PS
     2              OKAY                8265PS
     3              FAULTY              8265PS
     4              NOT_INSTALLED

Temperature Information:

    Probe           Location            Temperature
    -----           --------            -----------
     1              FAN_1               28 Degrees Celsius
     2              FAN_2               26 Degrees Celsius
     3              FAN_3               28 Degrees Celsius

Fan Information:

    Fan             Status
    ---             ------
     1              OKAY
     2              OKAY
     3              OKAY

8265ATM>
```

SHOW INVENTORY

Mode: User / Administrator
Code Card: IISP / PNNI

Use this command to list inventory information about the switch. This list includes the switch, all modules and submodules, the controller module, and includes software versions.



VERBOSE
Displays detailed inventory information.

NO_VERBOSE
Displays summarized inventory information (default).

Example — No Verbose

```
8265ATM> show inventory

HUB/                    Hardware
Slot  Module            Version  Serial #         Vendor           Date
----- ---------------   -------- ---------------- ---------------- ------
HUB   8265-S17          A        L9915            IBM              940708

01.01 53-58G9611FC5004 C38844   VIM R034         IBM              960531

03.01 53-51H4297FC5003 E28143                    IBM              960425
03.02 53-58G9578FC8800 D55936                    IBM              950628
03.03 53-58G9578FC8800 D55936   3528             IBM              960105
03.04 53-58G9578FC8800 D55936   3427             IBM              960105

09.01 93076H8108FC6501 E95775   16               IBM              970620
09.02 93002L2428FC6501 E95775   24               IBM              970620

19.01 8000-RCTL         A        1002442          ibm              940301

8265ATM>
```

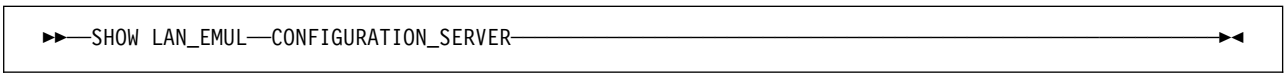
Example — Verbose

```
8265ATM> show inventory verbose

HUB/                    Hardware
Slot  Module            Version  Serial #         Vendor           Date
----- ---------------   -------- ---------------- ---------------- ------
HUB   8265-S17          A        L9915            IBM              940708

      Type:     8265-017          Number of slots:    17
      Note Pad:
      LAN Emulation Token Ring BIA:0006291f1234
      LAN Emulation Ethernet BIA  :000629771234
      Ethernet Port BIA           :000629779234

01.01 53-58G9611FC5004 C38844   VIM R034         IBM              960531

      Note Pad: High Speed
      Operational Version: n/a         Boot Version: n/a

03.01 53-51H4297FC5003 E28143                    IBM              960425

      Note Pad: High Speed 155 Mbps 3 PORTS
      Operational Version: n/a         Boot Version: n/a

03.02 53-58G9578FC8800 D55936                    IBM              950628

      Note Pad:
      Operational Version: n/a         Boot Version: n/a

03.03 53-58G9578FC8800 D55936   3528             IBM              960105

      Note Pad: modif. OK pour la COMBO...
      Operational Version: n/a         Boot Version: n/a

03.04 53-58G9578FC8800 D55936   3427             IBM              960105

      Note Pad: modif. OK pour la COMBO...
      Operational Version: n/a         Boot Version: n/a


09.01 93076H8108FC6501 E95775   16               IBM              970620

      Note Pad: 13J8704 8265 Golden Gate Switch Card
      Operational Version: d3.02.9     Boot Version: e3.02.9

09.02 93002L2428FC6501 E95775   24               IBM              970620

      Note Pad: 13J8704 8265 Golden Gate Control Point Card
      Operational Version: n/a         Boot Version: n/a

19.01 8000-RCTL         A        1002442          ibm              940301

      Note Pad: 0
      Operational Version: b1.14.0     Boot Version: v1.01

8265ATM>
```

SHOW LAN_EMUL CONFIGURATION_SERVER

Mode: User / Administrator
Code Card: IISP / PNNI

Use this command to display the entries in the LAN emulation configuration servers (LECS) address table. The entry containing the ATM address that will be substituted for the LECS well known address is identified as being WKA active.



Related Commands

SET LAN_EMUL CONFIGURATION_SERVER, CLEAR LAN_EMUL CONFIGURATION_SERVER, SAVE LAN_EMUL, REVERT LAN_EMUL

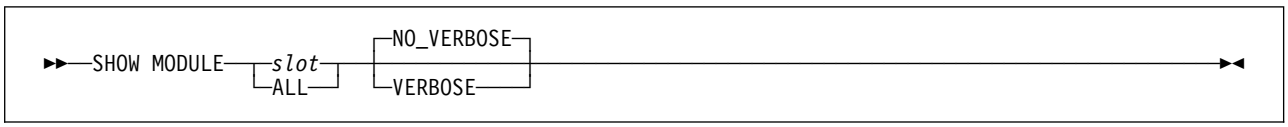
Example

```
8265ATM> show lan_emul configuration_server
Index            ATM address
--------------------------------------------------------------------------------
  1            39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.65.00.00
  2            39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.62.02.02
  3            39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.63.03.02
  4            39.99.99.99.99.99.99.00.00.00.00.01.94.00.82.65.82.63.02.02
8265ATM>
```

SHOW MODULE

Mode: User / Administrator
Code Card: IISP / PNNI

Use this command to display configuration information on the hardware and software settings of CPSW and ATM media modules.



slot Slot number where the module is installed. Valid slot numbers are in the range 1 to 8 and 12 to 17.

ALL All ATM modules and controller modules in the switch.

VERBOSE
Displays detailed module configuration information.

NO_VERBOSE
Does summarized module configuration information (default).

Usage Notes

- Configuration information is displayed only for ATM media modules that are **connected**. Information about **isolated** modules is not available.

Examples

NO_VERBOSE:

```
8265ATM> show module all

Slot Install Connect Operation General Information
-------------------------------------------------------------------------------
  1     Y       Y        Y     8265 ATM 3 Ports LAN 155 Mbps Module
  2     n       n        n     -
  3     Y       Y        Y     8265 ATM 4 ports 100 Mbps Module
  4     n       n        n     -
  5     Y       Y        Y     8265 ATM 12 ports 25 + 1 port 155Mbps Module
  6     n       n        n     -
  7     n       p        n     -
  8     n       n        n     -
  9     Y       Y        Y     8265 ATM Control Point and Switch Module:Active
 10     Y       n        n     < Extension >
 11     n       p        n     -
 12     n       n        n     -
 13     n       n        n     -
 14     n       n        n     -
 15     n       n        n     -
 16     n       n        n     -
 17     Y       Y        Y     8265 ATM 622 Mbps Module
 18     n       n        n     -
 19     Y       n        Y     Active Controller Module
8265ATM>
```

In the preceding example, the following information is displayed about each module:

Slot Slot number

Install Indicates whether a module is plugged into the slot.

- **Y** Module is plugged in.
- **n** No module is plugged in.

Connect Indicates whether the module is connected to the network.

- **Y** Module is connected to the network (SET MODULE x CONNECTED).
- **n** Module is isolated from the network (SET MODULE x ISOLATED).
- **p** Connection pending. Any module that is inserted in the slot will be automatically connected.

Operation

Indicates whether the module is operational.

- **Y** Module is installed, connected, and functioning properly.
- **n** Module is not functioning properly. An error condition is detected.

VERBOSE:

```
8265ATM> show module 17 verbose

Slot Install Connect Operation General Information
-------------------------------------------------------------------------------
 17     Y       Y        Y     8265 ATM 622 Mbps Module


status: connected / hardware okay
        disable / Normal

ATM Carrier Module Information:
------------------------------
P/N:76H8330  EC level:E46642  Manufacture: 930
Operational FPGA version : 1D23
     Backup FPGA version : DD03

     Type  Mode     Status                          Daughter Card Description
-------------------------------------------------------------------------------
17.01:UNI  disabled                                 ATM 622 Mbps


8265ATM>
```

In addition to the basic "NO_VERBOSE" display for the selected module, the following information is displayed:

status Four aspects of the module status are displayed, as shown below:

```
status: connection_status / hardware_status
        port_status / operation_status
```

Possible *connection_status* values are:

connected
Module is connected to the network.

not connected
Module is not connected to the network.

Possible *hardware_status* values are:

hardware OK
Functioning properly.

hardware KO
A hardware problem has been detected.

In case of a hardware problem with an ATM media module, refer to the “Problem Determination” section in the *8265 Media Module Reference Guide*.

In case of a hardware problem with the CPSW module, refer to the “Problem Determination” section in the *8265 User's Guide*.

Possible *port_status* values are:

enable At least one port is enabled.
disable All ports are disabled.

Possible *operation_status* values are:

normal No problem detected.

under recovery
A problem has been detected, and recovery is being attempted.

permanent failure

A problem has been detected, but no recovery is possible. The module is not operational.

In case of a hardware problem with an ATM media module, refer to the “Problem Determination” section in the *8265 Media Module Reference Guide*.

In case of a hardware problem with the CPSW module, refer to the “Problem Determination” section in the *8265 User's Guide*.

Operational FPGA version

Indicates the code level of the Operational FPGA code.

Backup FPGA version

Indicates the code level of the Backup FPGA code.

Port Status

For a description of the port status messages displayed with SHOW MODULE VERBOSE, see “SHOW PORT” on page 149.

Controller Module: This example shows how to display configuration information about the controller module in slot 18 of an 8265 switch:

```
8265ATM> show module 19 verbose

Slot Install Connect Operation General Information
------------------------------------------------------------------------------
 19     Y       n        Y     Active Controller Module

8000-RCTL: Redundant Controller Module

Operational Version:                    b1.14.0
Boot Version:                           v1.01
On-Board Clock Status:                  OKAY
A/D Converter Status:                   OKAY

8265ATM>
```

A12–TP25 Module Swap Limit: When the swap limit has been reached on an A12-TP25 module, the Backup FPGA version is displayed as "none".

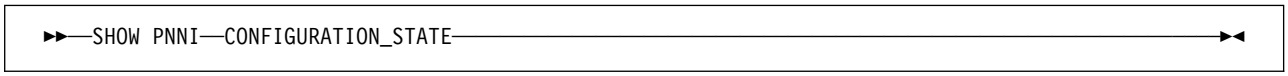
```
8265ATM> show module 3 verbose

Slot Install Connect Operation General Information
--------------------------------------------------
  3     Y       Y        Y    8260 ATM 12-Port 25 Mbps Module

status: connected / hardware OK
        enable / normal

P/N: 58G9878  EC level: D55931 Manufacture: VIME
Operational FPGA version : B50
     Backup FPGA version : none
  ⋮
```

SHOW PNNI CONFIGURATION_STATE

Mode: User / Administrator
Code Card: PNNI only

This command shows whether:

- Any uncommitted changes are pending in the future PNNI configuration
- The active PNNI configuration has been saved to Non-Volatile Storage (NVS).



Usage Notes

- This command is identical to the SHOW FUTURE_PNNI CONFIGURATION_STATE command.

Related Commands

SET PNNI commands, COMMIT PNNI, UNCOMMIT PNNI, SAVE PNNI, REVERT PNNI

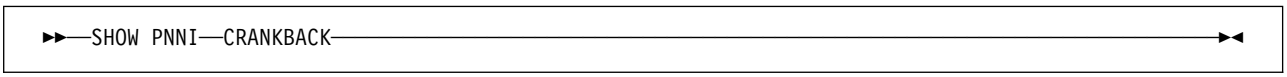
Example

```
8265ATM> show pnni configuration_state
There are uncommited changes pending, commit will cause a reset.
Active configuration is saved.
8265ATM>
```

SHOW PNNI CRANKBACK

Mode: User / Administrator
Code Card: PNNI only

This command shows the status of the signalling crankback function.



Related Commands

SET PNNI CRANKBACK, COMMIT PNNI, UNCOMMIT PNNI, SAVE PNNI, REVERT PNNI

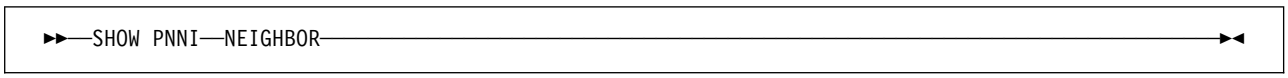
Example

```
8265ATM> show pnni crankback
Crankback : off.
8265ATM>
```

SHOW PNNI NEIGHBOR

Mode: User / Administrator
Code Card: PNNI only

This command shows a list of neighbor node IDs. Neighbor nodes are nodes directly connected via one or more links to the node being referenced.



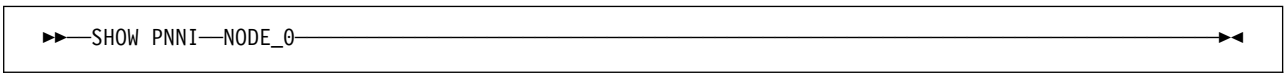
Example

```
8265ATM> show pnni neighbor
------ Neighbors of Node 0------
60.A0.39.99.99.99.99.99.99.00.00.99.99.01.52.52.52.52.52.52.52.00:Full
    Port  4.04 vpi=0
8265ATM>
```

SHOW PNNI NODE_0

Mode: User / Administrator
Code Card: IISP / PNNI

This command shows the current Node 0 settings in the active PNNI configuration.



Related Commands

SET PNNI NODE_0 commands, SHOW FUTURE_PNNI NODE_0, COMMIT PNNI, UNCOMMIT PNNI, SAVE PNNI, REVERT PNNI

Example

```
8265ATM> show pnni node_0
--------------------- Node  0 ---------------------
  ATM addr : 39.99.99.99.99.99.99.00.00.99.99.01.50.50.50.50.50.50.50.00
  Level Identifier :  96 (24 half-bytes and 0 bits)
  PGroup Id: 60.39.99.99.99.99.99.00.00.88.88.11
  Node Id  : 60.A0.39.99.99.99.99.99.00.00.99.99.01.50.50.50.50.50.50.50.00
  Unrestricted Transit.
8265ATM>
```

SHOW PNNI PATH_SELECTION

Mode: User / Administrator
Code Card: PNNI only

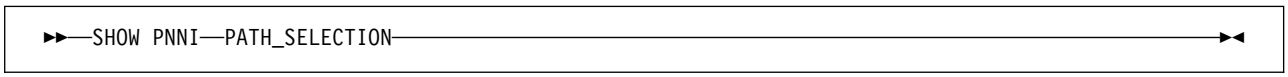
This command shows the currently active path selection settings for ABR and UBR calls:

ABR Can be either:

- On demand path
- Precomputed path

UBR Can be either:

- Widest path
- Shortest path



Related Commands

SET PNNI PATH_SELECTION, SHOW FUTURE_PNNI PATH_SELECTION, COMMIT PNNI, UNCOMMIT PNNI, SAVE PNNI, REVERT PNNI

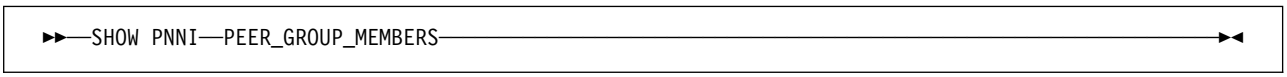
Example

```
8265ATM> show pnni path_selection
Unspecified bit rate : widest path.
  Available bit rate : precomputed path.
8265ATM>
```

SHOW PNNI PEER_GROUP_MEMBERS

Mode: User / Administrator
Code Card: PNNI only

This command lists all Node IDs included in the Node 0 peer group.



Related Commands

SET PNNI NODE_0 PEER_GROUP_ID, COMMIT PNNI, UNCOMMIT PNNI, SAVE PNNI, REVERT PNNI

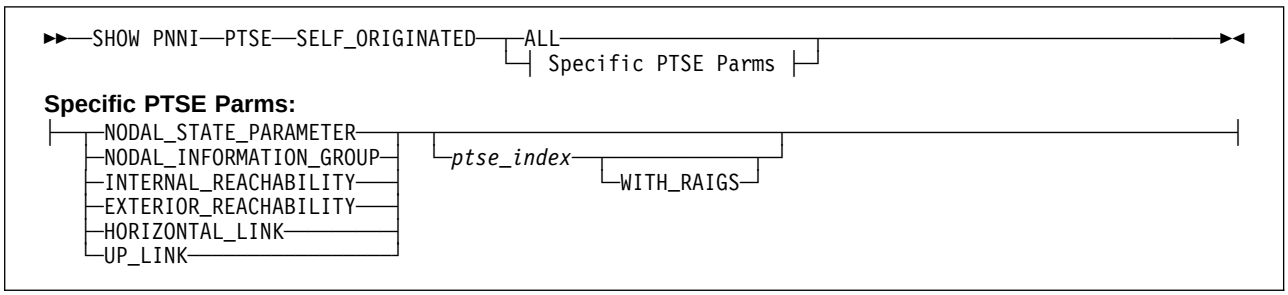
Example

```
8265ATM> show pnni peer_group_members
------ Peer Group of Node 0------
  60.A0.39.99.99.99.99.99.99.00.00.99.99.01.50.50.50.50.50.50.50.00 connected
  60.A0.39.99.99.99.99.99.99.00.00.99.99.01.51.51.51.51.51.51.51.00 not cnct.
  60.A0.39.99.99.99.99.99.99.00.00.88.88.11.31.50.00.00.00.94.31.00 connected
  60.A0.39.99.99.99.99.99.99.00.00.88.88.BB.BB.50.00.00.94.01.06.00 connected
  60.A0.39.99.99.99.99.99.99.00.00.88.88.11.00.50.00.00.94.01.15.00 connected
  60.A0.39.99.99.99.99.99.99.00.00.88.88.11.33.60.00.00.00.94.61.00 connected
  60.A0.39.99.99.99.99.99.99.00.00.88.88.11.11.50.00.00.00.94.50.00 connected
  60.A0.39.99.99.99.99.99.99.00.00.99.99.01.52.52.52.52.52.52.52.00 connected
  60.A0.39.99.99.99.99.99.99.00.00.99.99.01.61.61.61.61.61.61.61.00 not cnct.
  60.A0.39.99.99.99.99.99.99.00.00.99.99.01.83.83.83.83.83.83.83.00 connected
  60.A0.39.99.99.99.99.99.99.00.00.99.99.01.59.59.59.59.59.59.59.00 not cnct.
11 Members.
8265ATM>
```

SHOW PNNI PTSE SELF_ORIGINATED

Mode: User / Administrator
Code Card: PNNI only

This command shows the PNNI Topology State Elements (PTSEs) that have been created by the local switch.



ALL Displays a summary list showing the number of each type of PTSE that is created by the specified node.

ptse_index
Specifies the index number of the PTSE to be displayed. If no *ptse_index* is entered, the number of PTSEs of the selected type is displayed.

Note: Use the ALL parameter to display the number of each type of PTSE that is created by the specified node.

WITH_RAIGS
Displays the selected PTSE's Resource Availability Information Group (RAIG).

NODAL_STATE_PARAMETER
Displays only Nodal State Parameter PTSEs.

NODAL_INFORMATION_GROUP
Displays only Nodal Information Group PTSEs.

INTERNAL_REACHABILITY
Displays only Internal Reachability PTSEs.

EXTERIOR_REACHABILITY
Displays only External Reachability PTSEs.

HORIZONTAL_LINK
Displays only Horizontal Link PTSEs.

UP_LINK Displays only Up Link PTSEs.

Examples

ALL: The following example displays a summary list of all PTSE types created by node 0.

SHOW PNNI PTSE SELF_ORIGINATED

```
8265ATM> show pnni ptse self_originated all
------ Node 0------
Total of 3 such PTSEs exist of which:
0 are Nodal State Param PTSEs
1 is a Nodal Info Group PTSE (use 1 as index to show PTSE)
1 is an Internal Reachable PTSE (use 1 as index to show PTSE)
0 are Exterior Reachable PTSEs
1 is a Horizontal Link PTSE (use 1 as index to show PTSE)
0 are Up Link PTSEs
8265ATM>
```

NODAL_INFORMATION_GROUP: The following example shows a summary list and a full listing of the Nodal Information Group Parameter PTSEs on node 0.

```
8265ATM> show pnni ptse self_originated nodal_information_group
------ Node 0------
1 such Nodal Info Group PTSE (use 1 as index to show PTSE)

8265ATM> show pnni ptse self_originated nodal_information_group 1 with_raigs
------ Node 0------
Info Group 1 of Nodal Info Group PTSE:
  Leader                              : N
  Restricted Transit                  : N
  Simple Nodal Representation         : N
  SupportsAddBranchPts                : N
  NodeSupportsConecivityForPGLElect   : N
  ATM Address                         :
    39.99.99.99.99.99.99.00.00.99.99.01.50.50.50.50.50.50.50.00
  Peer Group Leader Priority          : 0
  Node ID Of Preferred Peer Group Leader:
    00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00.00
8265ATM>
```

INTERNAL_REACHABILITY: The following example shows a summary list and two full listings (with and without RAIGs) of the Internal Reachability PTSEs on node 0.

```
8265ATM> show pnni ptse self_originated internal_reachability
------ Node 0------
1 such Internal Reachability PTSE (use 1 as index to show PTSE)

8265ATM> show pnni ptse self_originated internal_reachability 1
------ Node 0------
Info Group 1 of Internal Reachable PTSE:
  VP Capability                       : Y
  Advertise Scope                     : 0
  Number of Raigs                     : 0
Addr Info 1 of Info Group 1 of Internal Reachability PTSE:
39.99.99.99.99.99.99.00.00.99.99.01.50 (104 bits)

8265ATM> show pnni ptse self_originated internal_reachability 1 with_raigs
------ Node 0------
Info Group 1 of Internal Reachable PTSE:
  VP Capability                       : Y
  Advertise Scope                     : 0
  Number of Raigs                     : 0
Addr Info 1 of Info Group 1 of Internal Reachability PTSE:
39.99.99.99.99.99.99.00.00.99.99.01.50 (104 bits)
8265ATM>
```

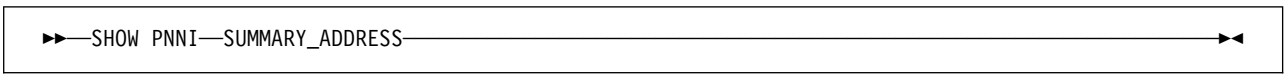
HORIZONTAL_LINK: The following example shows a summary list and a full listing of the Horizontal Link PTSEs on node 0.

```
8265ATM> show pnni ptse self_originated horizontal_link
------ Node 0------
1 such Horizontal Link PTSE (use 1 as index to show PTSE)

8265ATM> show pnni ptse self_originated horizontal_link 1 with_raigs
------ Node 0------
Info Group 1 of Horizontal Link PTSE:
  Local Link                          :  4.04 vpi=0
  Remote Node Id                      :
    60.A0.39.99.99.99.99.99.00.00.99.99.01.52.52.52.52.52.52.00
  Remote Pnni Port Id                 : 3003121675
  Aggregation Token                   : 0
  Number of Raigs                     : 2
Raig 1 of Info Group 1 of Horizontal Link PTSE:
  Type                                : Outgoing
  Constant Bit Rate                   : Y
  Real Time Variable Bit Rate         : Y
  Non Real Time Variable Bit Rate     : Y
  Available Bit Rate                  : N
  Unspecified Bit Rate                : N
  GenericConAdmissCtrlCelLossPriorAtrib : N
  Administrative weight               : 5040
  Maximum Bandwidth (kbps)            : 85000
  Available Bandwidth (kbps)          : 85000
  Cell Transfer Delay (us)            : 60
  Cell Delay Variation (us)           : 11
  CellLossRatioForCellLossPrior0      : 20
  CellLossRatioForCellLossPrior0And1  : 20
Raig 2 of Info Group 1 of Horizontal Link PTSE:
  Type                                : Outgoing
  Constant Bit Rate                   : N
  Real Time Variable Bit Rate         : N
  Non Real Time Variable Bit Rate     : N
  Available Bit Rate                  : Y
  Unspecified Bit Rate                : Y
  GenericConAdmissCtrlCelLossPriorAtrib : N
  Administrative weight               : 5040
  Maximum Bandwidth (kbps)            : 100000
  Available Bandwidth (kbps)          : 85000
  Cell Transfer Delay (us)            : 60
  Cell Delay Variation (us)           : 11
  CellLossRatioForCellLossPrior0      : 20
  CellLossRatioForCellLossPrior0And1  : 20
8265ATM>
```

SHOW PNNI SUMMARY_ADDRESS

Mode: User / Administrator
Code Card: PNNI only

This command lists the entry number, description and value for each summary address defined on the local switch



Related Commands

SET PNNI NODE_0 SUMMARY_ADDR, SHOW FUTURE_PNNI SUMMARY_ADDRESS, COMMIT PNNI, UNCOMMIT PNNI, SAVE PNNI, REVERT PNNI

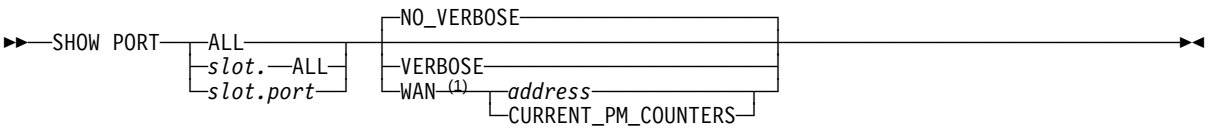
Example

```
8265ATM> show pnni summary_address
------ Internal Summary Addresses of Node 0------
  Entry 1-Prefix Length=104, non default, advertised :
    39.99.99.99.99.99.99.00.00.99.99.01.50.  .  .  .  .  .  .
18 empty entries
8265ATM>
```

SHOW PORT

Mode: User / Administrator
Code Card: IISP / PNNI

The SHOW PORT command enables you to display configuration information for an ATM media module port or for all ATM ports in an 8265 switch.



Note:
1 WAN2 ports only.

ALL Displays settings for all ports on all modules.

slot.ALL Displays settings for all ports on the selected module.

slot.port Displays settings for the selected port.

NO_VERBOSE
Displays summarized port configuration information (default).

VERBOSE
Displays detailed port configuration information.

WAN (**WAN2 ports only**) Displays the information about the selected WAN2 port:

address Displays the current values stored at the specified address.

CURRENT_PM_COUNTERS
Displays the current performance monitoring statistics for the selected port.

Usage Notes

- Port information is displayed only for **connected** modules. Information about ports on **isolated** modules is not available.

Related Commands

SET PORT, SAVE MODULE_PORT, REVERT MODULE_PORT

Examples

NO_VERBOSE

SHOW PORT

```
8265ATM> show port all


      Type Mode      Status
-------------------------------------------------------------------------------
 1.01: UNI enabled  no activity
 1.02:PNNI enabled  no activity
 1.03: UNI enabled  UP
 1.04: UNI enabled  UP
     Type  Mode     Status
-------------------------------------------------------------------------------
 3.01:UNI disabled
 3.02:UNI disabled
 3.03:PNNI enabled  no activity

8265ATM>
```

The following information is displayed about each port:

Port Number of the port on the ATM media module.

Type Type of ATM interface used (UNI, IISP, PNNI).

Mode Whether the port has been `enabled` or `disabled` using the SET PORT command.

Status Operational status of the port.

The following statuses are displayed during normal port operation:

- DOWN: Establishing *
- DOWN: Configuring *
- DOWN: Retrieving *
- UP: Registering *
- UP

If any other port status is displayed, or if any of the transient statuses (marked with * in the list) are displayed continuously, see the “Problem Determination” section in the *8265 Media Module Reference Guide*.

VERBOSE

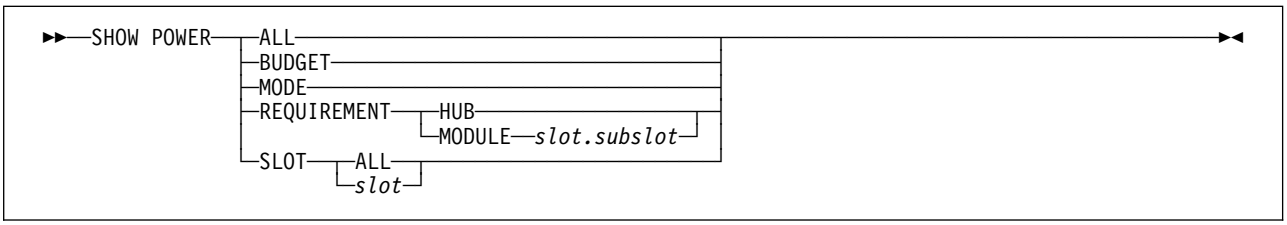
```
8265ATM> show port 1.3 verbose


      Type Mode      Status
-------------------------------------------------------------------------------
 1.03: UNI enabled  UP

Signalling Version   : Auto
> Oper Sig. Version  : 3.0
ILMI status          : UP
ILMI vci             : 0.16
RB Bandwidth         : unlimited
Police               : on
Signalling vci       : 0.5
RB Administrative weight : 5040
NRB Administrative weight: 5040
VPI.VCI range        : 15.1023 (4.10 bits)
Connector            : MIC
Media                : fiber
Port speed           : 100000 kbps
Remote device is active

8265ATM>
```

The Information displayed depends on the settings available for the port type.

SHOW POWER

Mode: User / Administrator
Code Card: IISP / PNNI

Use this command to display power budget, power modes, and power information on a per-slot basis. It also enables you to display the power settings for the switch, including the amount of power available and the amount of power consumed.



ALL Displays the combined results of BUDGET, MODE and SLOT ALL.

BUDGET Displays the power budget for each voltage type.

MODE Displays power modes for the switch.

REQUIREMENT
Displays power requirements for each voltage type.

HUB Displays requirements for the entire switch.

MODULE slot.subslot
Displays requirements for the specified slot and I/O card subslot.

SLOT Displays power settings for each slot.

ALL Displays settings for all slots.

slot Displays settings for the selected slot.

Examples

ALL

```
8265ATM> show power all

                Power Management Information
                ----------------------------

Hub Power Modes:

        Fault_Tolerant Mode:       NON_FAULT_TOLERANT
        Fault_Tolerant Status:     NON_FAULT_TOLERANT
        Overheat Power Down Mode:  DISABLE

Slot Power Information:

Slot     Class         Admin Status         Operating State
----     -----         ------------         ---------------
1        6             ENABLE               ENABLED
3        6             ENABLE               ENABLED
9        8             ENABLE               ENABLED
17       6             ENABLE               ENABLED

Hub Power Budget:

Voltage Type  Voltage Level  Watts Capacity  Watts Available  Watts Consumed
------------  -------------  --------------  ---------------  --------------
     +5V         5.196          454.00          214.00          240.00
     -5V        -5.056           25.50           25.00            0.50
    +12V        12.039          101.50           73.00           28.50
    -12V       -12.067           30.50           29.50            1.00
     +2V         2.120           14.20           10.20            4.00

8265ATM>
```

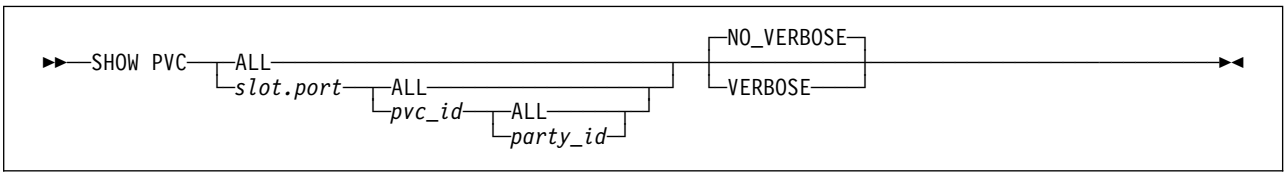
REQUIREMENT MODULE

```
8265ATM> show power requirement module 17.1

power requirements for slot 17.1:

  +2V power requirements (in units of 0.10 watt):    0
  +5V power requirements (in units of 1.00 watt):   30
  -5V power requirements (in units of 0.25 watt):    0
 +12V power requirements (in units of 0.50 watt):    2
 -12V power requirements (in units of 0.25 watt):    0

8265ATM>
```

SHOW PVC

Mode: User / Administrator
Code Card: IISP / PNNI

Use this command you to display the definitions of selected or all PVCs.



ALL Displays PVC information for all ports on all modules.

slot.port Displays PVC information for the selected port.

- **ALL** Displays PVC information for all PVCs on *slot.port*.
- **pvc_id** Displays PVC information for a selected PVC on *slot.port*.
  - **ALL** Displays PVC information for all parties on the selected PVC.
  - **party_id** Displays PVC information for the selected party on the selected PVC.

NO_VERBOSE
Display summary PVC information. This is the default option.

VERBOSE
Display detailed PVC information.

Related Commands

SET PVC, SET PARTY_PVC, CLEAR PVC, CLEAR PARTY

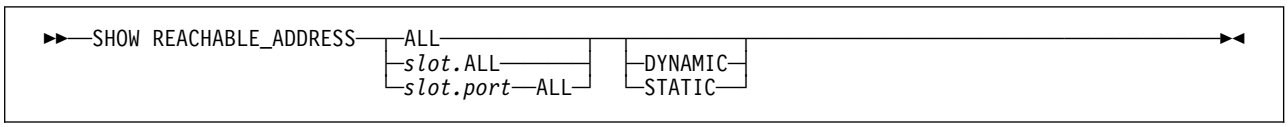
Example

```
8265ATM> show pvc all

--------------------------------------------------------------------------------
PVC:Port 8.01 (id=1,Primary,BE) PTP-PVC VP/VC=0/33
-> Party:(id=0) VP/VC=0/33 STATUS:Active
   45.AA.BB.CC.DD.EE.FF.00.00.88.88.DC.02.42.00.00.00.08.02.DC(port 8.02)
--------------------------------------------------------------------------------
PVC:Port 8.01 (id=3000,Primary,BE) PTP-PVC VP/VC=0/35
-> Party:(id=0) VP/VC=0/35 STATUS:Active
   45.AA.BB.CC.DD.EE.FF.00.00.88.88.DC.02.42.00.00.00.08.02.DC(port 8.02)
  :
8265ATM>
```

SHOW REACHABLE_ADDRESS

Mode: User / Administrator
Code Card: IISP / PNNI

This command displays all reachable addresses defined for the local switch, both those explicitly defined by the administrator in the reachable address table and those dynamically created by ILMI.



ALL Displays reachable addresses for all ATM media modules.

slot.ALL Displays reachable addresses for all PVCs on the selected *slot*.

slot.port ALL
Displays reachable addresses for the selected *slot.port*.

DYNAMIC | STATIC
Limits the display to:

DYNAMIC
Reachable addresses created dynamically by ILMI.

STATIC Reachable addresses explicitly defined in the reachable address table.

Usage Notes

- Those reachable addresses in the table that are known to the system and able to be routed are marked as Active ("Y" in the Active column).
- Addresses in the table whose routing is not known are marked as Inactive ("N" in the Active column).
- Addresses listed as "Dyn" have been created automatically and cannot be deleted.

Related Commands

SET REACHABLE_ADDRESS, CLEAR REACHABLE_ADDRESS, SAVE ALL, REVERT ALL

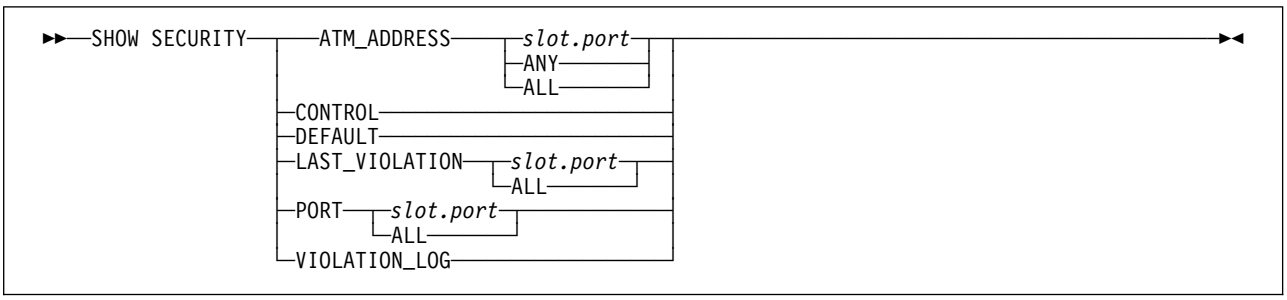
Example

```
8265ATM> show reachable_address all
Port  Len Address                                              Active Idx VPI
-------------------------------------------------------------------------------
 4.02  24 39.99.78.  .  .  .  .  .  .  .  .  .  .  .  .  .  .   N   1  -
 4.03 152 39.99.99.99.99.99.99.00.00.99.99.01.50.08.00.5A.99.02.BE Y Dyn   0
15.03 152 39.99.99.99.99.99.99.00.00.99.99.01.50.08.00.5A.99.02.A1 Y Dyn   0
8265ATM>
```

SHOW SECURITY

Mode: User / Administrator
Code Card: IISP / PNNI

This command displays access control settings and violations for selected ports and security settings for the local switch.



ATM_ADDRESS
Displays the access control address table entries for all ports or for a selected port.

slot.port Displays entries with per-port access on the specified port.

ANY Displays entries with global access on all ports.

ALL Displays all entries (global and per-port access).

CONTROL
Displays the current Mode, Autolearn, Log and Trap settings.

DEFAULT
Displays the default Mode, Autolearn, Log and Trap settings.

LAST_VIOLATION
Displays information regarding the last security violation:

- The slot and port where the violation occurred
- The ATM address that was rejected
- The date and time of the violation.

slot.port Displays settings for the specified port.

ALL Displays settings for all ports.

PORT Displays, for all ports or for a selected port, the current settings for Mode, Autolearn, Trap, and Log.

slot.port Displays settings for the specified port.

ALL Displays settings for all ports.

VIOLATION_LOG
Displays the contents of the violation log.

Related Commands

SET SECURITY commands, CLEAR SECURITY commands, SAVE SECURITY, REVERT SECURITY

Examples

ATM_ADDRESS

```
8265ATM> show security atm_address all
index port    ATM_ADDRESS
-------------------------------------------------------------------------------
 1   05.02  00.00.00.00.00.00.00.00.00.00.00.00.08.00.5A.EE.EE.EE
 2   00.00  00.00.00.00.00.00.00.00.00.00.00.00.08.00.5A.EE.EE.EF
 3   05.01  39.99.99.99.99.99.99.00.00.01.57.08.00.5A.AA.AA.AA.AA.AA
 4   00.00  39.99.99.99.99.99.99.00.00.01.57.08.00.5A.AA.AA.AA.AA.AB
 5   05.03  39.99.99.99.99.99.99.00.00.99.99.58.58.00.80.05.A9.92.8D
8265ATM>
```

The port number `0.0` (`index` 2) indicates that the address is granted access on ANY port.

CONTROL

```
8265ATM> show security control
              mode          autolearn      trap             log
-------------------------------------------------------------------------------
Control Flags  NO_SECURITY    ENABLED        ACCESS_VIOLATION ACCESS_VIOLATION
8265ATM>
```

DEFAULT

```
8265ATM> show security default
              mode          autolearn      trap             log
-------------------------------------------------------------------------------
Default Flags  NO_SECURITY    00             DISABLED         DISABLED
8265ATM>
```

PORT

```
8265ATM> show security port all
slotport      mode          autolearn      trap             log
-------------------------------------------------------------------------------
01.01         ACCESS_CONTROL 00             DISABLED         ENABLED
01.02         ACCESS_CONTROL 01             DISABLED         ACCESS_VIOLATION
01.03         NO_SECURITY    00             DISABLED         ENABLED
01.04         NO_SECURITY    00             ACCESS_VIOLATION ENABLED8265ATM>
```

LAST_VIOLATION

```
8265ATM> show security last_violation all
slotport    last_atm_violation                                  datetime
-------------------------------------------------------------------------------
0501 __.__.__.__.__.__.__.__.__.__.__.__.__.__.__.__.__.__.__.__
0502 __.__.__.__.__.__.__.__.__.__.__.__.__.__.__.__.__.__.__.__
0503 39.99.99.99.99.99.99.00.00.99.99.58.58.00.80.05.A9.92.8D 21 Dec 97 17:29:37
0504 __.__.__.__.__.__.__.__.__.__.__.__.__.__.__.__.__.__.__.__

8265ATM>
```

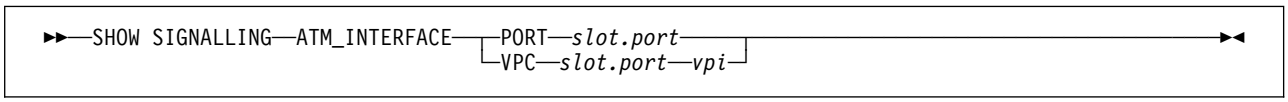
VIOLATION_LOG

```
8265ATM> show security violation_log
          VIOLATION LOG
   Type       Intf Date Time       Data
-------------------------------------------------------------------------------
01 ACCESS_CTRL  0101 7-31 14:50:25 add:399999999999990000999923030800 5A9902BE
02 ACCESS_CTRL  0101 7-31 14:50:31 add:399999999999990000999923030800 5A9902BE
03 ACCESS_CTRL  0101 7-31 14:50:31 add:399999999999990000999923030800 5A9902BE
04 ACCESS_CTRL  0101 7-31 14:50:38 add:399999999999990000999923030800 5A9902BE
05 ACCESS_CTRL  0101 7-31 14:50:38 add:399999999999990000999923030800 5A9902BE
06 ACCESS_CTRL  0101 7-31 14:50:38 add:399999999999990000999923030800 5A9902BE
07 ACCESS_CTRL  0101 7-31 14:51:05 add:399999999999990000999923030800 5A9902BE
08 ACCESS_CTRL  0101 7-31 14:51:05 add:399999999999990000999923030800 5A9902BE
09 ACCESS_CTRL  0101 7-31 14:51:17 add:399999999999990000999923030800 5A9902BE
10 ACCESS_CTRL  0101 7-31 14:51:17 add:399999999999990000999923030800 5A9902BE
  ⋮
63 ACCESS_CTRL  0101 7-31 16:47:40 add:399999999999990000999923030800 5A9902BE
64 ACCESS_CTRL  0101 7-31 16:47:40 add:399999999999990000999923030800 5A9902BE
8265ATM>
```

SHOW SIGNALLING ATM_INTERFACE

Mode: User / Administrator
Code Card: IISP / PNNI

This command displays, for a selected port or VPC, current signalling interface settings.



slot.port Specifies the port whose interface settings are to be displayed.

vpi Specifies the VPI (on the selected port) whose interface settings are to be displayed.

Related Commands

SET PORT, SET VPC_LINK, SAVE MODULE_PORT, REVERT MODULE_PORT

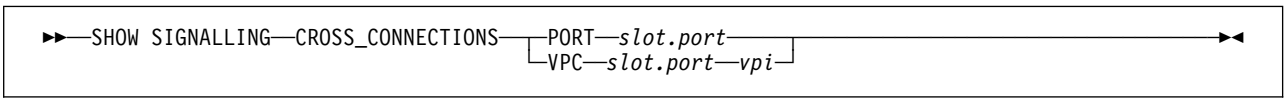
Example

```
8265ATM> show signalling atm_interface port 3.1
Interface Type: privateUNI
Sig Version   : UNI 3.0
Sig Side      : Network
Sscop State   : Active
Signaling vci : 5
Ilmi      vci : 16
ESI pvpc/pvcc : 420000000301
Max Vpi Bits  : 0
Max Vci Bits  : 10
Active Vps    : 0
Active Vcs    : 1
Nb Connexions : 1
8265ATM>
```

SHOW SIGNALLING CROSS_CONNECTIONS

Mode: User / Administrator
Code Card: IISP / PNNI

This command displays, for a selected port or VPC, a list of all currently defined cross-connections.



slot.port Specifies the port whose cross-connections are to be displayed.

vpi Specifies the VPI (on the selected port) whose cross-connections are to be displayed.

Related Commands

DUMP SIGNALLING CROSS_CONNECTIONS, SET PORT, SET VPC_LINK, CLEAR VPC_LINK, SAVE MODULE_PORT, REVERT MODULE_PORT

Example

```
8265ATM> show signalling cross_connections port 8.1
In: slot.port vpi.vci  type  Out: slot.port vpi.vci  type      Conn  Cat
-------------------------------------------------------------------------------
       8.1      0.33    PVC          8.2      0.33    PVC       P2P  UBR
       8.1      0.35    PVC          8.2      0.35    PVC       P2P  UBR
       8.1      0.38    PVC          8.2      0.38    PVC       P2P  UBR
       8.1      0.39    PVC          8.2      0.39    PVC       P2P  UBR

Total number of cross_connections = 4
8265ATM>
```

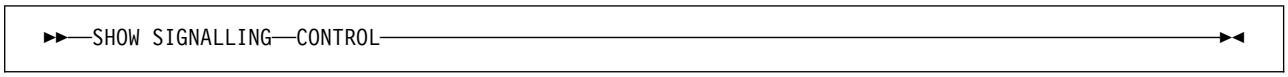
SHOW SIGNALLING CONTROL

Mode: User / Administrator
Code Card: IISP / PNNI

This command displays settings related to the global state of the signalling entity in the local switch.

For Monitoring Values:

- Current values show the current percentage of signalling resources in use by category.
- Maximum values show the maximum percentages reached since system startup.



Related Commands

SET PORT, SET VPC_LINK, SAVE MODULE_PORT, REVERT MODULE_PORT

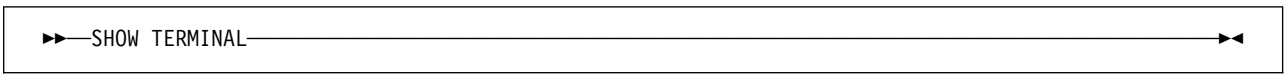
Example

```
8265ATM>show signalling control
Control:
--------

Crankback                              : ON
Try alternate path                     : ON
Try alternate route                    : ON
Try alternate link                     : ON
Max number of route retries            : 1
Max number of crankback levels         : 1
Maintain connections on layer 2 reset  : ON
Maintain connections on layer 2 failure: ON
Restart procedures                     : OFF
Restart message on interface up        : OFF
Capture data before failure            : OFF
Send call proceeding message           : ON

Monitoring:
-----------

Limited resources: NO

                   Current         Maximum
Multicast tree       6.29 %          6.29 %
Cross connection     3.59 %          5.48 %
Connection           3.58 %          5.48 %
Party                0.19 %          0.19 %

ATM>
8265ATM>
```

SHOW TERMINAL

Mode: User / Administrator
Code Card: IISP / PNNI

Use this command to display configuration settings for the console or modem attached to the ATM Control Point. This includes the terminal parameters and the serial line IP (SLIP) settings.



Related Commands

SET TERMINAL, SAVE TERMINAL, REVERT TERMINAL

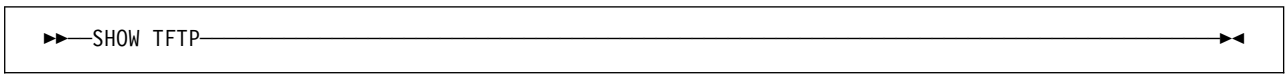
Example

```
8265ATM> show terminal

Terminal Parameters:
     Baud            9600
     Data bits       8
     Hangup          DISABLE
     Parity          NONE
     Stop bits       1
     Timeout time    0
     Protocol        Normal

SLIP resource not configured

TELNET server connected
     local address: 9.100.109.203,
     remote address: 9.100.57.90.
8265ATM>
```

SHOW TFTP

Mode: User / Administrator
Code Card: IISP / PNNI

Use this command to display TFTP parameters that control the function of the DOWNLOAD and UPLOAD commands.



Usage Notes

- If you enter the SHOW TFTP command and receive the message `Target blade mismatch`, it indicates a mismatch between the file to be downloaded and the type of the destination module.

Related Commands

SET TFTP, SAVE TFTP, REVERT TFTP

Example

```
8265ATM> show tftp

TFTP Parameters:
Server IP address    : 9.100.51.171 (samson_eth).
File Name            : /tmp/gg030.security.log.
File type            : Security Log.
Last Transfer Date   : 1 Aug 1997.
Last Transfer Result : This file has not been transferred yet.
8265ATM>
```

Server IP address
IP address of the server where the downloaded or uploaded file is stored.

File Name
Name of the file to be downloaded or uploaded.

File Type Type of file to be downloaded or uploaded

Target Module
Slot number of the ATM module for which the next upload or download operation of FPGA will be done. (Only if TFTP file type is CONTROLLER_BOOT, CONTROLLER_OPERATIONAL, or FPGA.)

Target Port
Slot and port number of the WAN2 I/O card for which the next microcode download will be done. (Only if the TFTP file type is PORT.)

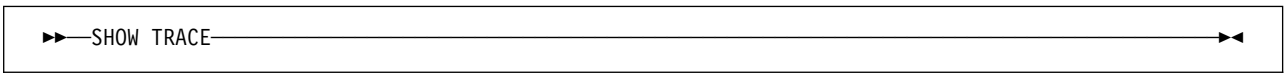
Last Transfer Date
Date when last upload or download took place.

Last Transfer Result
Status of the last TFTP transfer.

SHOW TRACE

Mode: User / Administrator
Code Card: IISP / PNNI

Use this command to display all settings currently configured by the SET TRACE command.



Related Commands

SET TRACE, SAVE ALL, REVERT ALL

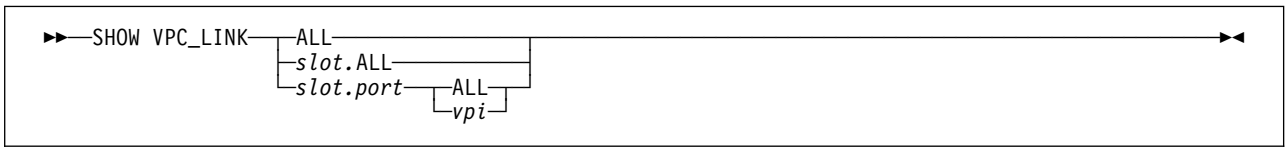
Example

```
8265ATM> show trace
 Main trace is OFF.
                base trace will be off when main trace is on.
 signalling messages trace will be on when main trace is on.
                ilmi trace will be off when main trace is on.
                 lec trace will be off when main trace is on.
           pnni_base trace will be off when main trace is on.
       pnni_messages trace will be off when main trace is on.
       pnni_neighbor trace will be off when main trace is on.
 pnni_path_selection trace will be on when main trace is on.
                 pvc trace will be off when main trace is on.
            RFC 1577 trace will be off when main trace is on.
                saal trace will be off when main trace is on.
         connections trace will be on when main trace is on.
                snmp trace will be off when main trace is on.
        box services trace will be off when main trace is on.

8265ATM>
```

SHOW VPC_LINK

Mode: User / Administrator
Code Card: IISP / PNNI

This command displays all or selected VPC links defined on the local switch.



ALL Displays VPC link information for all ATM media modules.

slot.ALL Displays VPC link information for all ports on the selected slot.

slot.port Displays VPC link information for the selected port.

- **ALL** Displays all VPI link information for the port.
- **vpi** Displays VPC link information for the selected *vpi* for the port.

Related Commands

SET VPC_LINK, CLEAR VPC_LINK, SAVE MODULE_PORT, REVERT MODULE_PORT

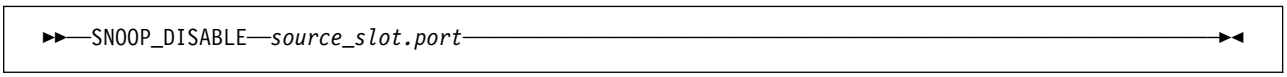
Example

```
8265ATM> show vpc_link
Enter module: all

       VPI :Type  Mode      Status
-------------------------------------------------------------------------------
 4.02     5:UNI enable  DOWN:port not ready
8265ATM>
```

SNOOP_DISABLE

Mode: Administrator
Code Card: IISP / PNNI

This command disables port mirroring for a selected port.



source_slot.port
Specifies the slot and port numbers for the port whose mirroring is being disabled.

Related Commands

SNOOP_ENABLE, SHOW_PORT SAVE MODULE_PORT, REVERT MODULE_PORT

Example

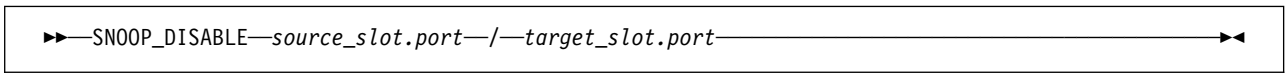
The following example stops mirroring of port 3.5's traffic.

```
8265ATM> snoop_disable 3.5

8265ATM>
```

SNOOP_ENABLE

Mode: Administrator
Code Card: IISP / PNNI

This command disables port mirroring for a selected port.



source_slot.port
Specifies the slot and port numbers for the port whose mirroring is being disabled.

Only one port per module may be mirrored at the same time.

target_slot.port
Specifies the slot and port numbers for the port that will receive the mirrored traffic.

All other ports on the target port's module must be disabled while port mirroring is enabled.

Related Commands

SNOOP_DISABLE, SHOW_PORT SAVE MODULE_PORT, REVERT MODULE_PORT

Example

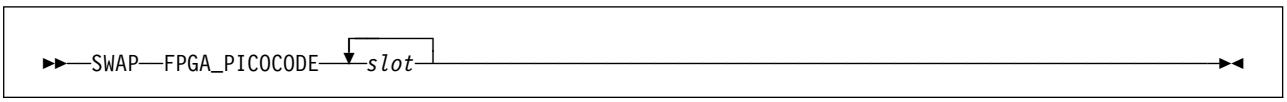
The following example starts mirroring of port 3.5's traffic onto port 5.2 .

```
8265ATM> snoop_enable 3.5 5.2

8265ATM>
```

SWAP FPGA_PICOCODE

Mode: Administrator
Code Card: IISP / PNNI

Use this command to change the version of hardware picocode in the FPGA of one or more modules. For every module in the list, the backup and operational FPGA versions are swapped and the module is reset.



slot Slot number of the module.

If the ATM Control Point FPGA version is to be swapped, it is recommended to specify its slot number last in the list.

Example

```
8265ATM> swap_fpga_picocode 3 4
You are about to change operational FPGA version...
Are you sure ? (Y/N) Y
Processing slot 3 ... Swap completed
Processing slot 4 ... Swap completed

8265ATM>
```

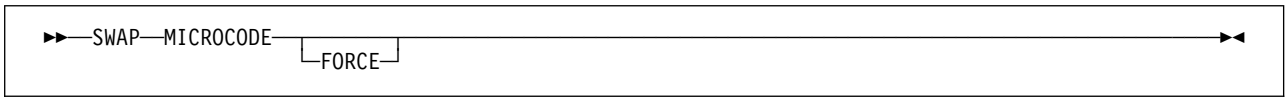
When the swap limit is reached for the FPGA code on an A12-TP25 module, the following message is displayed.

```
8265ATM>swap fpga_picocode 14
You are about to change operational FPGA version..
Are you sure ? (Y/N) Y
Processing slot 14 ... Swap rejected : swap count limit reached.
8265ATM>
```

SWAP MICROCODE

Mode: Administrator
Code Card: IISP / PNNI

Use this command to change the inactive version to the active version of the ATM Control Point operational microcode (flash EEPROM). This command causes the checksum of the inactive version of the microcode (flash EEPROM) to be computed. If the checksum is valid, the microcode version is activated and the ATM subsystem reset.



FORCE Specifies that any unsaved configuration settings are discarded when resetting the ATM subsystem.

Example

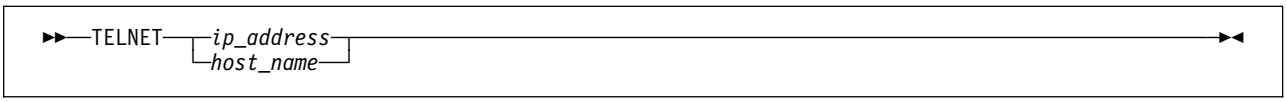
```
8265ATM> swap microcode
You are about to change operational microcode version and reset the hub
The saved hub configuration may be lost...
Are you sure ? (Y/N) Y
```

TELNET

Mode: User / Administrator
Code Card: IISP / PNNI

Use this command to log on to, and manage, any ATM Control Point in the network from a remote ATM Control Point console. To log on to a remote ATM Control Point, you must enter its IP address (configured with the SET DEVICE IP_ADDRESS or SET DEVICE LAN_EMULATION_CLIENT command).

Once you log on to the remote ATM Control Point, you are prompted to enter the correct password. Afterwards, all the ATM Control Pointcommands that you enter locally affect the remote module.



ip_address
IP address of an ATM Control Pointin the format *n.n.n.n*, where *n* is a number between 0 and 255.

host_name
The name assigned to an ATM Control Point using the SET HOST command.

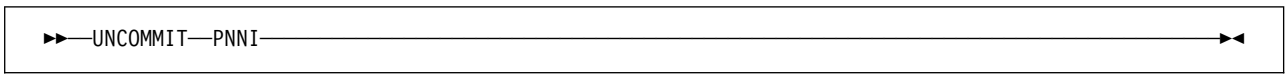
Usage Notes

- You can remotely log on to **only** one ATM Control Point at a time. If you have already started a remote session and want to connect to another remote ATM Control Point, you must first log off the active remote session.
- Before connecting to a remote ATM Control Point, make sure that the module is on the same IP subnetwork as the ATM Control Pointto which you are locally logged on, or that it is bridged or routed to the same IP subnetwork.
- To interrupt a remote connection to an ATM Control Pointand return to your local ATM Control Point session, enter the LOGOUT command or press the CTRL-D keys.
- You may only remotely log on to other CPSW modules. Remote login to non-switch ATM devices from the configuration console is not supported, even if the remote device supports the TELNET protocol.

UNCOMMIT PNNI

Mode: Administrator
Code Card: IISP / PNNI only

This command restores the Future PNNI Configuration by replacing Future PNNI settings with the current Active PNNI settings.



Related Commands

SET PNNI commands, SHOW FUTURE_PNNI CONFIGURATION STATE, COMMIT PNNI, UNCOMMIT PNNI, SAVE PNNI, REVERT PNNI

Example

```
8265ATM> uncommit pnni
UNCOMMIT successfully executed.
8265ATM>
```

UPLOAD

Mode: Administrator
Code Card: IISP / PNNI

Use this command to upload any of the following data to a file on a server:

CONFIGURATION
All configuration settings for the IBM 8265.

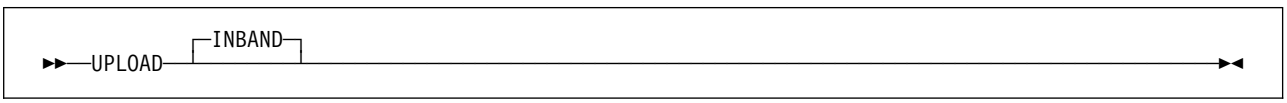
DUMP The current contents of the dump buffer.

ERROR_LOG
The current contents of the error log.

MAIN_TRACE
The current contents of the main trace buffer.

SECURITY_CONFIGURATION
A file containing all security configuration settings.

SECURITY_LOG
The current contents of the security violations log.



Usage Notes

- Before using UPLOAD, you must define:
  - The address of the server using the SET TFTP_SERVER_IP_ADDRESS command
  - The name of the file to be uploaded. using the SET TFTP_FILE_NAME command
  - The type of the file to be uploaded. using the SET TFTP FILE_TYPE command.
- The host must run the Trivial File Transfer Program (TFTP) daemon and must be correctly configured to support TFTP communication. For more information on the TFTP daemon, refer to the documentation supplied with your host.
- Uploaded error logs contain all errors logged at the time you run UPLOAD. Uploaded trace logs contain all currently active traces. Note that the trace log file is continuously updated in the ATM Control Point even when UPLOAD is being run.
- If you are uploading the TFTP file to a host server that runs AIX, you must first configure AIX for the TFTP file transfer. This procedure is described in the *8265 User's Guide*.
- Only one UPLOAD command can be run at a time from the configuration console. Another can be run via ATM network management facilities.
- If you run UPLOAD in any of the following situations:
  - From a remote TELNET session,
  - From another ATM Control Point local console,
  - While another upload or download operation is in progress on the network management station,

  a message is displayed on your configuration console, such as:

```
Upload Resource Already In Use
```

Example

The following example shows the steps required for uploading the access control address table (server running OS/2):

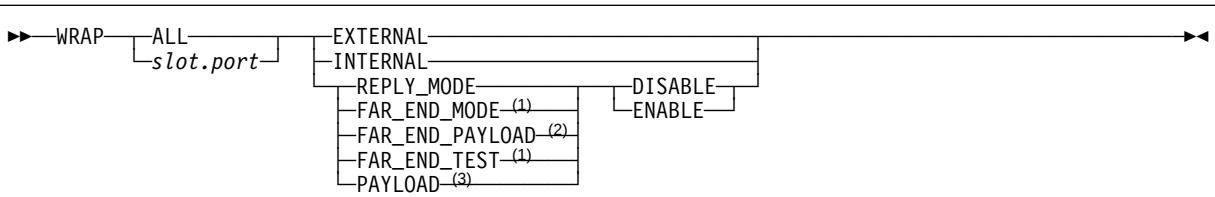
```
8265ATM>set security tftp_server_ip_address 122.38.82.109

8265ATM>set security tftp_file_name
Enter file name:  c:\sec\address.tab

File name set.
8265ATM> upload inband

Upload Successful.
8265ATM>
```

WRAP

Mode: Administrator
Code Card: IISP / PNNI

Use this command to diagnose problems that arise on ATM ports. Before running the WRAP command to test the port, you must first disable the port and then connect a wrap device to it.

The WRAP command sets up an internal connection between the ATM Control Point and the ATM port being tested. ATM cells are sent from the ATM Control Point or ATM media module to the ATM port over the connection. If the same number of cells are sent back, the test is successful.



Notes:
1. T1 and DS3 modules only.
2. T1 modules only.
3. WAN2 modules only.

slot Slot number of the ATM media module.

port Port number of the ATM port.

ALL All slots in the hub.

EXTERNAL
Required for 25 Mbps and 155 Mbps ports.

INTERNAL
Required for 155 Mbps ports only.

REPLY_MODE
Required for 155 Mbps ports only.

FAR_END_MODE
For T1 and DS3 modules only.

FAR_END_PAYLOAD
For T1 modules only.

FAR_END_TEST
For T1 and DS3 modules only.

PAYLOAD
For WAN 2 modules only.

Example

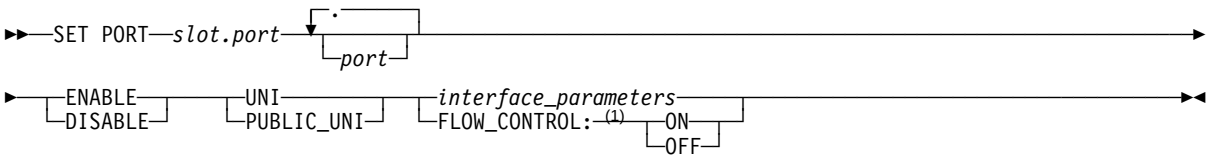
```
8265ATM> wrap external 4.2

Test successful.
8265ATM>
```

Appendix A. Port-Specific SET PORT Parameters

This appendix describes port-specific SET PORT parameters for the following port types:

- 100 Mbps SET PORT Parameters
- 155 Mbps SET PORT Parameters
- 622 Mbps SET PORT Parameters
- E1/T1 SET PORT Parameters
- E3/DS3 SET PORT Parameters
- OC3/STM1 SET PORT Parameters

100 Mbps SET PORT Parameters

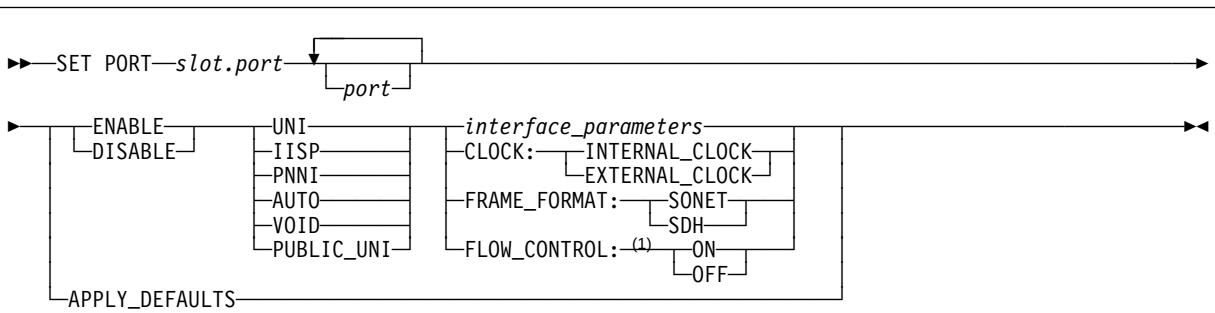


Note:
1 UNI or PUBLIC_UNI ports only.

slot*, *port*, APPLY_DEFAULTS, ENABLE, DISABLE, UNI, IISP, PNNI, AUTO, VOID, PUBLIC_UNI, *interface_parameters
See "SET PORT" on page 66 for a description of the standard SET PORT parameters.

ON | OFF Enables and disables XON/XOFF on the selected port.

155 Mbps SET PORT Parameters



Note:
1 UNI or PUBLIC_UNI ports only. Not available on 4–port 155 Mbps module.

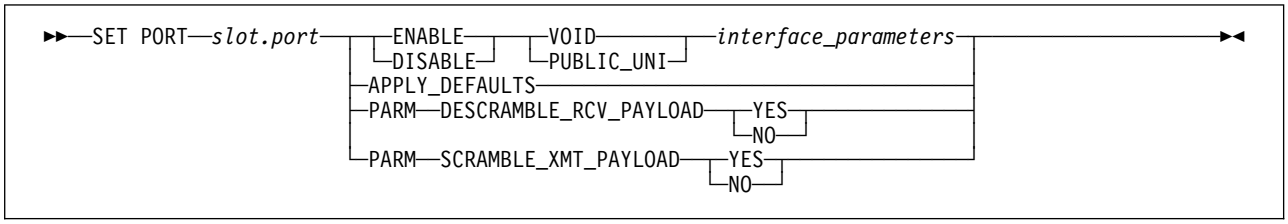
slot*, *port*, APPLY_DEFAULTS, ENABLE, DISABLE, UNI, IISP, PNNI, AUTO, VOID, PUBLIC_UNI, *interface_parameters
See "SET PORT" on page 66 for a description of the standard SET PORT parameters.

ON | OFF Enables and disables Flow Control on the selected port.

INTERNAL_CLOCK | EXTERNAL_CLOCK
Selects between internal and external clocking.

SONET | SDH
Selects the frame format.

622 Mbps SET PORT Parameters

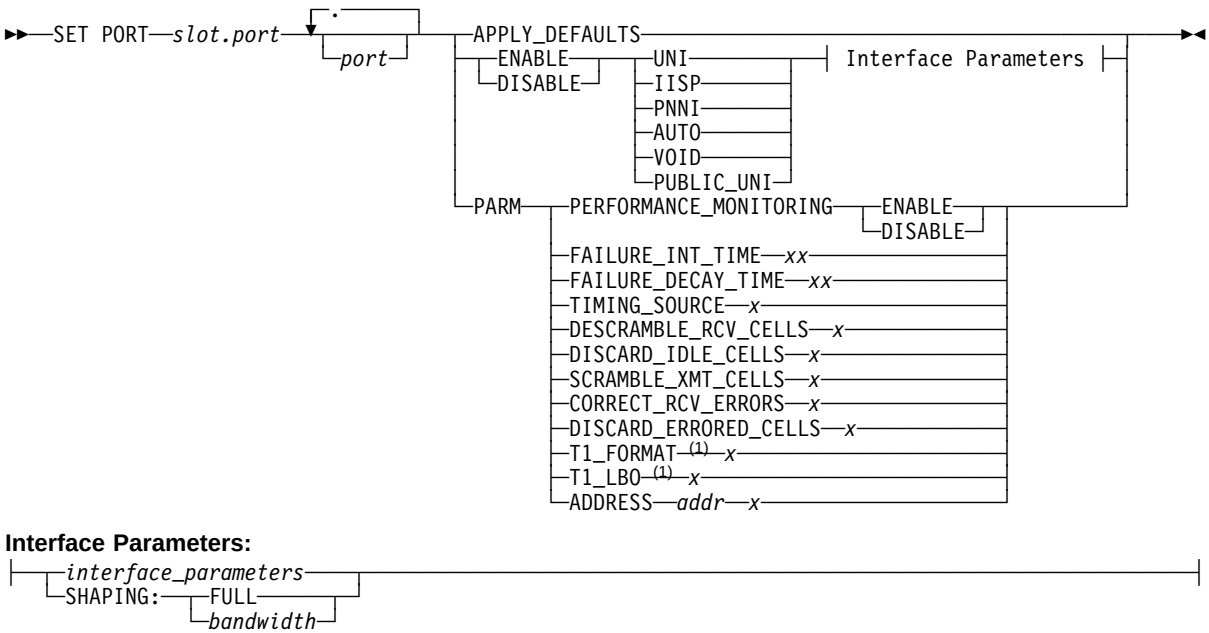


slot*, *port*, APPLY_DEFAULTS, ENABLE, DISABLE, VOID, PUBLIC_UNI, *interface_parameters
See "SET PORT" on page 66 for a description of the standard SET PORT parameters.

PARM DESCRAMBLE_RCV_PAYLOAD
The cell payload received by the 622 Mbps port is unscrambled by default.

PARM SCRAMBLE_XMT_PAYLOAD
The cell payload transmitted by the 622 Mbps port is scrambled by default.

E1/T1 SET PORT Parameters



slot*, *port*, APPLY_DEFAULTS, ENABLE, DISABLE, UNI, IISP, PNNI, AUTO, VOID, PUBLIC_UNI, *interface_parameters

See “SET PORT” on page 66 for a description of the standard SET PORT parameters.

SHAPING

Specifies maximum throughput for the port:

FULL Utilizes the full bandwidth available on the port.

bandwidth

Restricts throughput to the amount specified (in increments of 8 Kbps):

- E1 range: 8 Kbps to 1920 Kbps
- T1 range: 8 Kbps to 1536 Kbps

PARM PERFORMANCE_MONITORING

Specifies whether WAN performance statistics are to be monitored.

ENABLE Enables accumulation of port performance statistics.

DISABLE Disables accumulation of port performance statistics.

PARM DESCRAMBLE_RCV_PAYLOAD

The cell payload received by the 622 Mbps port is unscrambled by default.

PARM SCRAMBLE_XMT_PAYLOAD

The cell payload transmitted by the 622 Mbps port is scrambled by default.

PARM FAILURE_INT_TIME *xx*

The amount of time, in half-second increments, that a defect must be continually present before being deemed a failure is set by default to 2.5 seconds. See the table below for possible values of *xx*.

Table 1. Failure Integration Time Parameter Values

Value	Sec	Value	Sec	Value	Sec	Value	Sec	Value	Sec
00	0.0	**05**	2.5	**10**	5.0	**15**	7.5	**20**	10.0
01	0.5	**06**	3.0	**11**	5.5	**16**	8.0		
02	1.0	**07**	3.5	**12**	6.0	**17**	8.5		
03	1.5	**08**	4.0	**13**	6.5	**18**	9.0		
04	2.0	**09**	4.5	**14**	7.0	**19**	9.5		

PARM FAILURE_DECAY_TIME *xx*

The amount of time, in five-second increments, that a defect must be continually absent before the failure is cleared is set by default to 10.0 seconds. See the table below for possible values of *xx*.

Table 2. Failure Decay Time Parameter Values

Value	Sec	Value	Sec	Value	Sec	Value	Sec	Value	Sec
00	0.0	**05**	5.0	**10**	10.0	**15**	15.0	**20**	20.0

PARM TIMING_SOURCE *x*

The timing source used for transmission signal timing can be set to be derived from the receive signal (Facility timing), the external interface (External timing), or the I/O card (Internal timing). Possible values of *x* are:

0 Facility timing (default)
1 External timing
2 Internal timing
3 Receive line clock timing

PARM DESCRAMBLE_RCV_CELLS *x*

The ATM cells received by the port are unscrambled by default. Possible values of *x* are:

0 Unscrambling disabled
1 Unscrambling enabled (default)

PARM DISCARD_IDLE_CELLS *x*

Idle ATM cells (cells with VPI and VCI fields of zeroes) received by the port are discarded by default. Possible values of *x* are:

0 Discard disabled
1 Discard enabled (default)

PARM SCRAMBLE_XMT_CELLS *x*

The scrambling of ATM cells transmitted by the port is performed by default. Possible values of *x* are:

0 Scrambling disabled
1 Scrambling enabled (default)

PARM CORRECT_RCV_ERRORS *x*

The correction of single bit errors in the header of ATM cells received is performed by default. Possible values of *x* are:

0 Correction disabled
1 Correction enabled (default)

PARM DISCARD_ERRORED_CELLS *x*

The discarding of idle ATM cells received is performed by default. Possible values of *x* are:

0 Discard disabled
1 Discard enabled (default)

PARM ADDRESS 100 *x* [Power On Diagnostics]
Power On diagnostics test memory access, register access, data path continuity and basic device functionality on the port, after each reset of the port. These diagnostics are enabled by default. Disabling the diagnostics will minimize the time required for the port to be initialized. Possible values of *x* are:

0 Diagnostics disabled
1 Diagnostics enabled (default)

PARM ADDRESS *addr x* [Generate Header Error Control (HEC) Field]
The generation of the HEC field in ATM cells that are to be transmitted over the ATM port is performed by default. The port generates the HEC field and inserts it into the transmitted cells. Applications that require the ATM Control Point to generate the field should disable this function.

Values for *addr* may be:

116 Port 1 or Port 5
126 Port 2 or Port 6
136 Port 3 or Port 7
146 Port 4 or Port 8

Possible values of *x* are:

0 Generation disabled
1 Generation enabled (default)

PARM ADDRESS *addr x* [Addition of Coset Polynomial in ATM Cell Headers]
The addition of the coset polynomial to the HEC byte in ATM cell headers is performed by default.

Values for *addr* may be:

117 Port 1 or Port 5
127 Port 2 or Port 6
137 Port 3 or Port 7
147 Port 4 or Port 8

Possible values of *x* are:

0 Coset polynomial not added
1 Coset polynomial added (default)

PARM ADDRESS *addr x* [Set SA4 - SA8 Bits in Transmit E1]
(E1 only) Sets the value of the SA4 to SA8 Bits in the transmit E1.

Possible values of *x* are **0** and **1**.

Values for *addr* may be:

Table 3. Values for SA4 to SA8 bits in Transmit E1

Bit	Port 1	Port 2	Port 3	Port 4
SA4	118	128	138	148
SA5	119	129	139	149
SA6	11A	12A	13A	14A
SA7	11B	12B	13B	14B
SA8	11C	12C	13C	14C

PARM ADDRESS *addr x*

(T1 only) The T1 termination location is set to a customer-side location by default.

Values for *addr* may be:

11B Port 1 or Port 5
12B Port 2 or Port 6
13B Port 3 or Port 7
14B Port 4 or Port 8

Possible values of *x* are:

0 T1 termination on Network side
1 T1 termination on Customer side (default)

PARM T1_FORMAT *x*

(T1 only) The framing format of the transmit T1 is set to ESF by default. Possible values of *x* are:

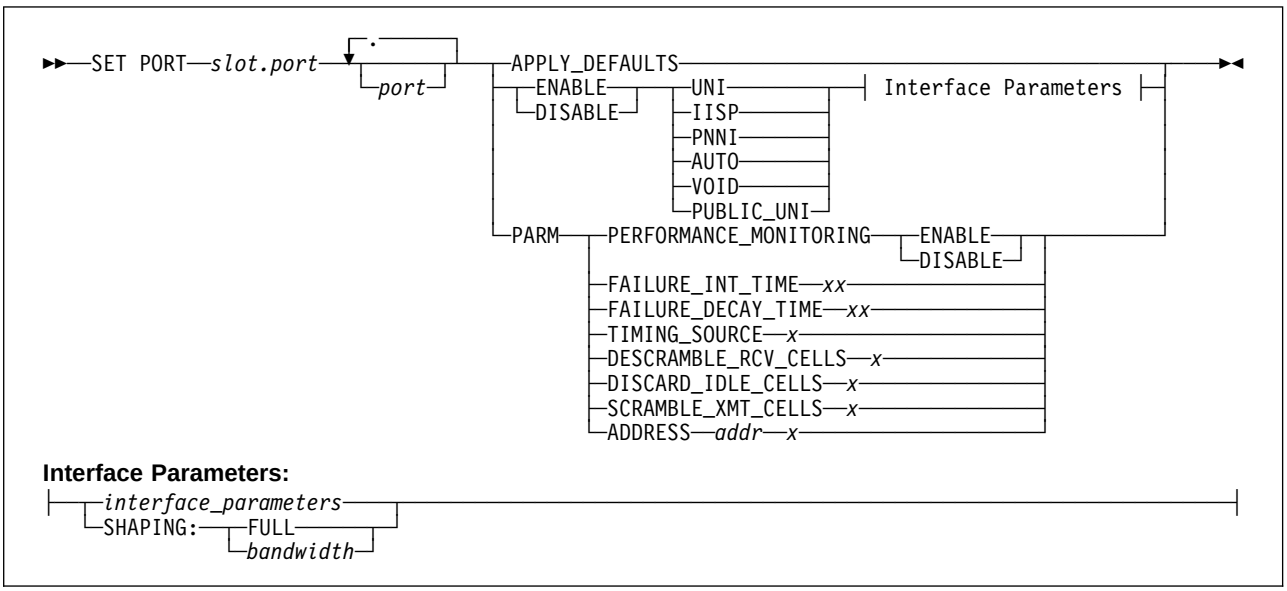
0 SF format
1 ESF format (default)

PARM T1_LBO *x*

(T1 only) The transmit output amplitude and shape are set to 0 dB by default. Possible values of *x* are:

0 0-133 Ft.
1 133-266 Ft.
2 266-399 Ft.
3 399-533 Ft.
4 533-655 Ft.
5 0 dB (default)
6 –7.5 dB
7 –15 dB
8 –22.5 dB

E3/DS3 SET PORT Parameters



slot*, *port*, APPLY_DEFAULTS, ENABLE, DISABLE, UNI, IISP, PNNI, AUTO, VOID, PUBLIC_UNI, *interface_parameters

See "SET PORT" on page 66 for a description of the standard SET PORT parameters.

SHAPING

Specifies maximum throughput for the port:

FULL Utilizes the full bandwidth available on the port.

bandwidth

Restricts throughput to the amount specified (in increments of 8 Kbps).

PARM PERFORMANCE_MONITORING

Specifies whether WAN performance statistics are to be monitored.

ENABLE Enables accumulation of port performance statistics.

DISABLE Disables accumulation of port performance statistics.

PARM FAILURE_INT_TIME *xx*

The amount of time, in half-second increments, that a defect must be continually present before being deemed a failure is set by default to 2.5 seconds. See the table below for possible values of *xx*.

Table 4. Failure Integration Time Parameter Values

Value	Sec	Value	Sec	Value	Sec	Value	Sec	Value	Sec
00	0.0	**05**	2.5	**10**	5.0	**15**	7.5	**20**	10.0
01	0.5	**06**	3.0	**11**	5.5	**16**	8.0		
02	1.0	**07**	3.5	**12**	6.0	**17**	8.5		
03	1.5	**08**	4.0	**13**	6.5	**18**	9.0		
04	2.0	**09**	4.5	**14**	7.0	**19**	9.5		

PARM FAILURE_DECAY_TIME *xx*

The amount of time, in five-second increments, that a defect must be continually absent before being the failure is cleared is set by default to 10.0 seconds. See the table below for possible values of *xx*.

Table 5. Failure Decay Time Parameter Values

Value	Sec	Value	Sec	Value	Sec	Value	Sec	Value	Sec
00	0.0	**05**	5.0	**10**	10.0	**15**	15.0	**20**	20.0

PARM TIMING_SOURCE *x*

The timing source used for transmission signal timing can be set to be derived from the receive signal (Facility timing), the external interface (External timing), or the I/O card (Internal timing). Possible values of *x* are:

0 Facility timing (default)
1 External timing
2 Internal timing

PARM DESCRAMBLE_RCV_CELLS *x*

The ATM cells received by the port are unscrambled by default. Possible values of *x* are:

0 Unscrambling disabled
1 Unscrambling enabled (default)

PARM DISCARD_IDLE_CELLS *x*

Idle ATM cells (cells with VPI and VCI fields of zeroes) received by the port are discarded by default. Possible values of *x* are:

0 Discard disabled
1 Discard enabled (default)

PARM SCRAMBLE_XMT_CELLS *x*

The scrambling of ATM cells transmitted by the port is performed by default. Possible values of *x* are:

0 Scrambling disabled
1 Scrambling enabled (default)

PARM ADDRESS 100 *x* [Power On Diagnostics]

Power On diagnostics test memory access, register access, data path continuity and basic device functionality on the port, after each reset of the port. These diagnostics are enabled by default. Disabling the diagnostics will minimize the time required for the port to be initialized. Possible values of *x* are:

0 Disabled
1 Enabled (default)

PARM ADDRESS 105 *x* [Correct Header Errors]

The correction of single bit errors in the header of ATM cells received by the port is enabled by default. Possible values of *x* are:

0 Error correction disabled
1 Error correction enabled (default)

PARM ADDRESS 106 *x* [Discard ATM Cells with Uncorrectable Headers]

ATM cells with uncorrectable header errors received by the port are discarded by default. They are not passed to the ATM Control Point. Possible values of *x* are:

0 Discard disabled
1 Discard enabled (default)

SET PORT (E3/DS3)

PARM ADDRESS 109 *x* [Generate Header Error Control (HEC) Field]

The generation of the HEC field in ATM cells that are to be transmitted over the ATM port is performed by default. The port generates the HEC field and inserts it into the transmitted cells. Applications that require the ATM Control Point to generate the field should disable this function. Possible values of *x* are:

0 Generation disabled
1 Generation enabled (default)

PARM ADDRESS 10A *x* [Addition of Coset Polynomial in ATM Cell Headers]

The addition of the coset polynomial to the HEC byte in ATM cell headers is performed by default. Possible values of *x* are:

0 Coset polynomial not added
1 Coset polynomial added (default)

PARM ADDRESS 10B *x* [E3 Framing Format]

The E3 transmit framing format is by default set to G.832. When other framing formats are supported in future releases, the format may be changed. Possible values of *x* are:

0 G.832 format used for transmit

PARM ADDRESS 10C *x* [E3 Transmit Timing Marker]

When external timing is used (see PARM TIMING_SOURCE on page 185), transmit timing can be deemed traceable to a primary reference clock. Possible values of *x* are:

0 External clock is a primary reference clock
1 External clock is not a primary reference clock (default)

PARM ADDRESS 10D *x* [Monitoring of Payload Type]

The monitoring of payload type mismatch failures can be enabled or disabled. When enabled, failures are declared when the payload field of the E3 overhead does not contain the proper value. Possible values of *x* are:

0 Monitoring disabled
1 Monitoring enabled (default)

PARM ADDRESS 10E *x* [Monitoring of Trail Mismatch Failures]

The monitoring of trail mismatch failures can be enabled or disabled. When enabled, failures are declared when the 16-byte trail trace received does not match the expected receive trail trace (see Expected Trail Trace on page 187). Possible values of *x* are:

0 Monitoring disabled (default)
1 Monitoring enabled

PARM ADDRESS 10F *x* [Trail Trace Format]

The trail trace format applies to both the transmit and receive trail traces. The 16-byte trail trace format can be specified to include a CRC7 in the first byte. Possible values of *x* are:

0 16-byte format
1 16-byte format with CRC7 in first byte (default)

PARM ADDRESS 110 - 11F *x* [Transmit Trail Trace]

A trail access point identifier (16 bytes in length) is usually transmitted so that the trail receiving terminator can verify that it is connected to the correct transmitter. If the trail trace format is set to include a CRC7 in the first byte, only bytes 1-15 of the 16 byte field are significant. Possible values of *x* are:

00 to **FF** for each byte. Default is 89 for the first byte, all remaining bytes 00.

PARM ADDRESS 120 - 12F *x* [Expected Trail Trace]

The trail trace that is expected to be received can be specified so that when the monitoring of trace mismatch failures is active (see Monitoring of Trail Mismatch Failures on page 186), a failure can be signalled if the received trail trace differs. If the trail trace format is set to include a CRC7 in the first byte, only bytes 1-15 of the 16 byte field are significant. Possible values of *x* are:

00 to **FF** for each byte. Default is 89 for the first byte, all remaining bytes 00.

PARM ADDRESS 130 *x* [Generation of RDI Signal]

An E3 RDI signal can be generated when of loss of cell delineation occurs. Possible values of *x* are:

0 Transmission of RDI signal disabled
1 Transmission of RDI signal enabled (default)

PARM ADDRESS 10A *x* [Addition of Coset Polynomial in ATM Cell Headers]

The addition of the coset polynomial to the HEC byte in the ATM cell headers is performed by default. Possible values of *x* are:

0 Coset polynomial not added
1 Coset polynomial added (default)

PARM ADDRESS 10B *x* [DS3 Framing Format]

The DS3 transmit framing format can be set to either C-bit parity or M23 format. Enforced C-bit parity is set by default. The format can also be set so that C-bit parity automatically reverts to M23 format if the received DS3 signal is in M23 format. Possible values of *x* are:

0 M23 format forced
1 C-bit parity format preferred
2 C-bit parity format forced (default)

PARM ADDRESS 10C *x* [DS3 Line Buildout]

The transmit DS3 line buildout is determined by the length of the cable connected to the ATM port. If the cable is between 0 and 225 feet (0 and 68.5 m), the default setting should be used. If the length of cable is between 225 and 450 feet (68.5 and 137.1 m), the setting should be changed to **1**. Possible values of *x* are:

0 0 to 225 feet (default)
1 225 to 450 feet

PARM ADDRESS 10D *x* [PLCP Framing]

A PLCP (Physical Layer Convergence Protocol) can be used in the transmit and receive DS3 signals. When used (default), 41.1 Mbps of bandwidth is allocated to ATM cell traffic, while direct mapping of ATM cells provides up to 44.21 Mbps of bandwidth for ATM traffic. If not used, ATM cells are mapped directly into the DS3 payload and cell delineation is based on the HEC field. Possible values of *x* are:

0 PLCP disabled
1 PLCP enabled (default)

PARM ADDRESS 10E *x* [PLCP Timing Source]

The timing source for the transmit PLCP can be independent of transmit DS3 timing. By default, the timing is derived from the receive PLCP signal, and may be changed to derive timing from the transmit DS3 signal or from the external interface. Possible values of *x* are:

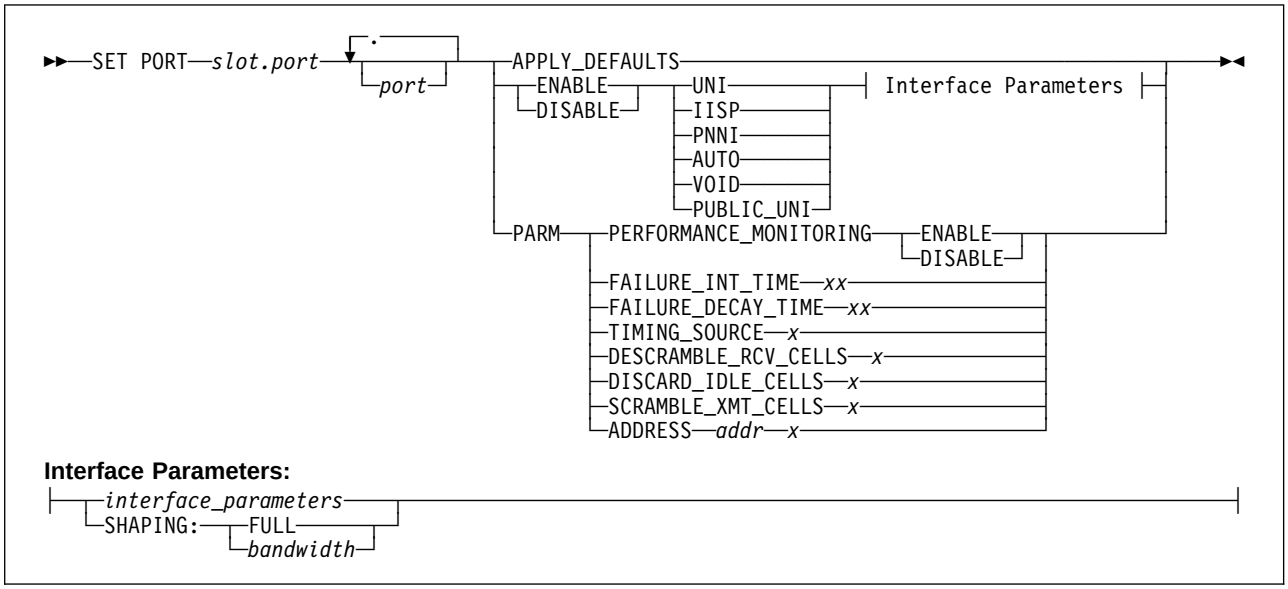
1 External 8kHz timing
3 Receive PLCP (default)
4 Transmit DS3

PARM ADDRESS 10F *x* [Transmitting Z Bytes]

Transmit Z bytes can either be derived from an external source or be filled with zeroes (default). When an external source is used, the bytes are derived from the XPOHDATA (Transmit PLCP Overhead Data) signal. Possible values of *x* are:

0 All zeroes (default)
1 External source

OC3/STM1 SET PORT Parameters



slot*, *port*, APPLY_DEFAULTS, ENABLE, DISABLE, UNI, IISP, PNNI, AUTO, VOID, PUBLIC_UNI, *interface_parameters

See "SET PORT" on page 66 for a description of the standard SET PORT parameters.

SHAPING

Specifies maximum throughput for the port:

FULL Utilizes the full bandwidth available on the port.

bandwidth

Restricts throughput to the amount specified (in increments of 8 Kbps).

PARM PERFORMANCE_MONITORING

Specifies whether WAN performance statistics are to be monitored.

ENABLE Enables accumulation of port performance statistics.

DISABLE Disables accumulation of port performance statistics.

PARM FAILURE_INT_TIME *xx*

The amount of time, in half-second increments, that a defect must be continually present before being deemed a failure is set by default to 2.5 seconds. See the table below for possible values of *xx*.

Table 6. Failure Integration Time Parameter Values

Value	Sec	Value	Sec	Value	Sec	Value	Sec	Value	Sec
00	0.0	**05**	2.5	**10**	5.0	**15**	7.5	**20**	10.0
01	0.5	**06**	3.0	**11**	5.5	**16**	8.0		
02	1.0	**07**	3.5	**12**	6.0	**17**	8.5		
03	1.5	**08**	4.0	**13**	6.5	**18**	9.0		
04	2.0	**09**	4.5	**14**	7.0	**19**	9.5		

SET PORT (OC3/STM1)

PARM FAILURE_DECAY_TIME *xx*

The amount of time, in five-second increments, that a defect must be continually absent before being the failure is cleared is set by default to 10.0 seconds. See the table below for possible values of *xx*.

Table 7. Failure Decay Time Parameter Values

Value	Sec	Value	Sec	Value	Sec	Value	Sec	Value	Sec
00	0.0	**05**	5.0	**10**	10.0	**15**	15.0	**20**	20.0

PARM TIMING_SOURCE *x*

The timing source used for transmission signal timing can be set to be derived from the receive signal (Facility timing), the external interface (External timing), or the I/O card (Internal timing). Possible values of *x* are:

0 Facility timing (default)
1 External timing
2 Internal timing

PARM DESCRAMBLE_RCV_CELLS *x*

The ATM cells received by the port are unscrambled by default. Possible values of *x* are:

0 unscrambling disabled
1 unscrambling enabled (default)

PARM DISCARD_IDLE_CELLS *x*

Idle ATM cells (cells with VPI and VCI fields of zeroes) received by the port are discarded by default. Possible values of *x* are:

0 discard disabled
1 discard enabled (default)

PARM SCRAMBLE_XMT_CELLS *x*

The scrambling of ATM cells transmitted by the port is performed by default. Possible values of *x* are:

0 scrambling disabled
1 scrambling enabled (default)

PARM ADDRESS 100 *x* [Power On Diagnostics]

Power On diagnostics test memory access, register access, data path continuity and basic device functionality on the port, after each reset of the port. These diagnostics are enabled by default. Disabling the diagnostics will minimize the time required for the port to be initialized. Possible values of *x* are:

0 disabled
1 enabled (default)

PARM ADDRESS 105 *x* [Correct Header Errors]

The correction of single bit errors in the header of ATM cells received by the port is enabled by default. Possible values of *x* are:

0 error correction disabled
1 error correction enabled (default)

PARM ADDRESS 106 *x* [Discard ATM Cells with Uncorrectable Headers]

ATM cells with uncorrectable header errors received by the port are discarded by default. They are not passed to the ATM Control Point. Possible values of *x* are:

0 discard disabled
1 discard enabled (default)

PARM ADDRESS 109 *x* [Generate Header Error Control (HEC) Field]

The generation of the HEC field in ATM cells that are to be transmitted over the ATM port is performed by default. The port generates the HEC field and inserts it into the transmitted cells. Applications that require the ATM Control Point to generate the field should disable this function. Possible values of *x* are:

0 generation disabled
1 generation enabled (default)

PARM ADDRESS 10A *x* [Monitoring of Signal Label Mismatch Failures]

Signal label mismatch failures are monitored by the port by default. The port indicates label mismatch failures when the C2 byte in the SDH path overhead received does not contain the proper value. The use of this monitoring is optional. Possible values of *x* are:

0 monitoring disabled
1 monitoring enabled (default)

PARM ADDRESS 18D *x* [Path Trace Format]

(STM1 only) The path trace format applies to both receive and transmit path traces. By default, it is set to a repeating 64-byte message. The trace can also be set to a repeating 16-byte message, with the first byte optionally containing a CRC7 calculated over the message. Possible values of *x* are:

00 to **FF** for each byte (max. 64 bytes) ;**00** for each byte (default)

PARM ADDRESS 10B *x* [Monitoring of Path Trace Mismatch Failures]

Path trace mismatch failures are not monitored by default. When enabled, the ATM port indicates path trace mismatch failures when the 64-byte path trace received in the J1 byte in the SDH path overhead received does not match the expected received path trace. The expected path trace should be configured before monitoring is activated. Possible values of *x* are:

0 monitoring disabled (default)
1 monitoring enabled

PARM ADDRESS 10C *x* [Transmitted Path Trace]

The path trace transmitted by the ATM port in the J1 byte of the SDH overhead, typically a string describing the location of the transmitter, is sent in the path trace field so that the far end VC4 path terminator can verify that is connected to the correct transmitter. If the path trace format has been set at 16 bytes, (see Path Trace Format on page 191), only the first 16 bytes (all set to 0 by default) of this field are significant. If the path trace format contains a CRC7, only bytes 1-15 are significant (a CRC7 is generated for byte 0). Possible values of *x* are:

00 to **FF** for each byte (max. 64 bytes) ;**00** for each byte (default)

PARM ADDRESS 14C - 18B *x* [Expected Received Path Trace]

If the monitoring of path trace mismatches is enabled, the value assigned to the expected path trace is compared with the received path trace to determine if a mismatch is present. If the path trace format contains a CRC7, only bytes 1-15 are significant (a CRC7 is generated for byte 0). By default, the expected received path trace has all bytes set to zeroes. Possible values of *x* are:

00 to **FF** for each byte (max. 64 bytes) ;**00** for each byte (default)

PARM ADDRESS 18C *x* [Addition of Coset Polynomial in ATM Cell Headers]

(STM1 only) The addition of the coset polynomial to the HEC byte in the ATM cell headers is performed by default. Possible values of *x* are:

0 coset polynomial not added
1 coset polynomial added (default)

SET PORT (OC3/STM1)

Appendix B. Maintenance Mode Commands

Maintenance mode is an operating mode that provides a minimal number of commands for exceptional situations where the 8265 is unable to function normally.

Maintenance mode is available with both the IISP and PNNI code cards.

The CPSW enters Maintenance mode:

- When diagnostics procedures determine that the switch is not able to operate normally.
- When the Administrator enters the MAINTAIN command during normal operation.

Maintenance mode commands should only be used by experienced users.

Maintenance Mode Functions

Available functions in Maintenance mode are:

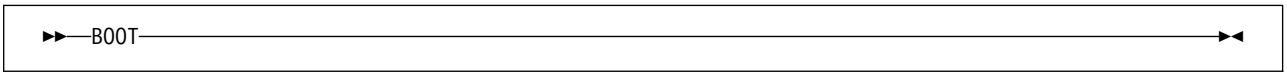
- Viewing and changing the IP address of the CPSW:
  - SHOW IP_ADDRESS
  - SET IP_ADDRESS
  - CLEAR IP_ADDRESS
- Viewing and changing the Ethernet MAC address of the CPSW:
  - SHOW MAC_ADDRESS
  - SET MAC_ADDRESS
  - CLEAR MAC_ADDRESS
- Viewing and changing the default gateway:
  - SHOW DEFALT_GATEWAY
  - SET DEFALT_GATEWAY
  - CLEAR DEFALT_GATEWAY
- Clearing the current settings in the CPSW and restoring their default values:
  - CLEAR ALL
  - CLEAR CONFIGURATION
- Downloading new boot or operational code to the CPSW and specifying which operational code will be loaded:
  - USE BAUD
  - DOWNLOAD OUT_OF_BAND
  - SHOW ERRORS
  - SHOW FLASH
  - SWAP ACTIVE
- Rebooting the ATM Subsystem:
  - BOOT
  - DOWNLOAD OUT_OF_BAND BOOT

BOOT

The BOOT command ends Maintenance mode and boots the ATM subsystem using the ATM operational code in the "Active" area of the Flash EEPROM. BOOT does the following:

- Resets the hardware of all ATM modules in the 8265 switch.
- Runs ATM diagnostics if they are enabled.
- Activates the new operational software downloaded to the flash EEPROM.

Once the ATM subsystem boots up with the new operational software, press Enter to redisplay the password prompt and log on to the system.

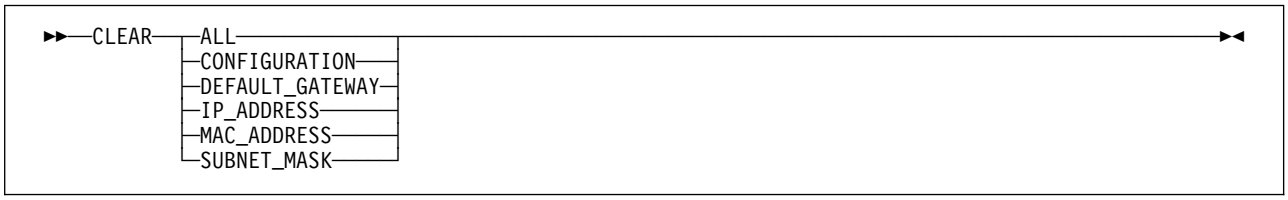


Usage Notes

- Use the SHOW FLASH command to view the levels of the "Active" and "Backup" Operational code and of Boot code.
- After the ATM modules reboot, you must press Enter again to display the Password prompt.

CLEAR

This command erases all or selected settings in the CPSW.



ALL Erases all CPSW settings and resets them to their default values. This is the most destructive of the CLEAR options. Use it with caution.

CONFIGURATION
Erases the contents of all configuration tables (such as module and port settings, VPCs, PVCs, and so on). This parameter does not affect flags (such as diagnostics and operational code areas) or basic device addresses (such as default gateway and IP address).

DEFAULT_GATEWAY
Erases the address of the default gateway router.

IP_ADDRESS
Erases the IP address of the CPSW.

MAC_ADDRESS
Reverts the Ethernet MAC address of the CPSW to the burned-in address (BIA).

SUBNET_MASK
Erases the subnet mask of the CPSW.

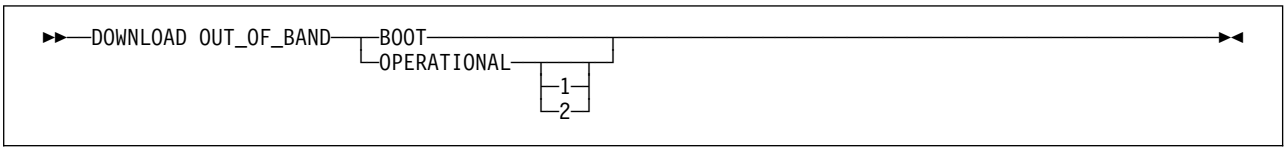
Usage Notes

- CLEAR ALL sets area 1 of the Operational Flash EEPROM to "Active".
- After entering CLEAR CONFIGURATION or CLEAR ALL, the current settings remain active until you restart normal operation with the BOOT or DOWNLOAD OUT_OF_BAND BOOT command.
- If the configuration console uses different SET TERMINAL values than the defaults, and you clear the configuration before entering the BOOT command, you may lose the console connection. In this case, you must either reconfigure the console to the factory-default settings or attach another console that uses these settings.
- If you insert a CPSW module in another switch before clearing its current configuration, the module will start up with the current configuration instead of with its default settings. As a result, the ATM subsystem may not operate properly and some ATM connections may not be established.

DOWNLOAD OUT_OF_BAND

Use this command to load IBM code updates from a workstation attached to the RS-232 console port operating in normal mode (not in SLIP mode).

The code you download is stored in the flash EEPROM of the CPSW module and replaces any previous code versions stored there.



BOOT Downloads boot code to flash EEPROM and resets the ATM subsystem.

OPERATIONAL
Downloads operational code to flash EEPROM. Optionally, you can specify into which area of the EEPROM the code is placed:

1 | 2 (**For IBM service engineers only.**) Specifies the area in the Operational Flash EEPROM into which the new code should be downloaded.

If you do not specify an `area`, the new code is downloaded into the "Inactive" area. This is the normal use of the command. In this case, you must use SWAP ACTIVE to make the new code the "Active" code.

If you specify area `1` or `2`, that area becomes the "Active" area when you leave Maintenance mode.

Usage Notes

- To activate the new Operational microcode, enter the BOOT command.

Example

Unsuccessful Download: The following example shows how an error message is displayed when the command is not successfully run:

```
>> download out_of_band operational

Download failed: 00 00 00 05
>>
```

When a download out-of-band operation fails, one of the following codes (eight hexadecimal digits) is displayed:

`00 00 00 03` Link broken during download

`00 00 00 05` Ten consecutive errors or timeouts before receiving a good packet

`00 00 00 0D` Transfer canceled by the sender

`00 00 10 00` Error in the download program

`00 00 1r rr` The flash area for the new operational program could not be cleared; `rrr` is returned by flash support

`00 02 00 00` **to** `00 02 00 07`
Bad file header

`00 03 00 01` **to** `00 03 00 07`
Bad file contents

`00 03 2r rr` Writing a part of the new operational program in flash memory failed; `rrr` is returned by flash support

`00 04 00 04` Unexpected end of file

`00 04 00 08` Checksum of the received data is not the module checksum

`00 04 20 01` **to** `00 04 20 07`
Bad file contents

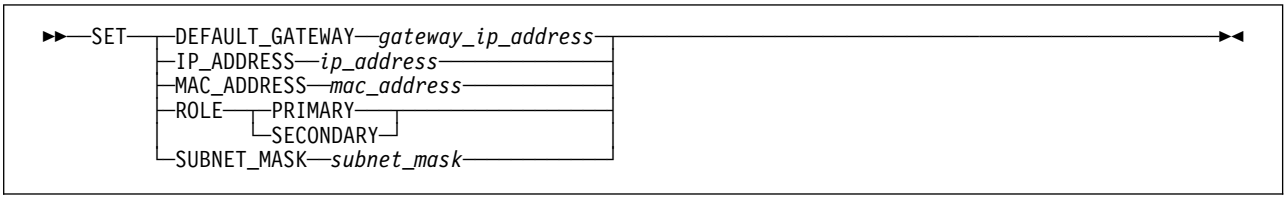
`00 04 3r rr` Writing the end of the new operational program in flash memory failed; `rrr` is returned by flash support

`00 04 4r rr` Checking the new operational program in flash memory failed; `rrr` is returned by flash support

`00 04 5r rr` Writing the new boot program in flash memory failed; `rrr` is returned by flash support

SET

The SET commands in Maintenance mode set the basic flags and device settings for the CPSW. All settings entered with the SET command are saved immediately to NVRAM.



gateway_ip_address
Specifies the IP address of the router in the format *n.n.n.n*, where *n* is a number between 0 and 255.

ip_address
Specifies the IP address of the CPSW in the format *n.n.n.n*, where *n* is 0-255.

mac_address
Specifies the individual MAC address as 6 bytes in hexadecimal, with the bytes separated by a dash (-). The address must be in 802.3 format (locally and universally administered addresses are supported). If the MAC address is not specified, or if it is set to '00-00-00-00-00-00', the corresponding burned-in address is used.

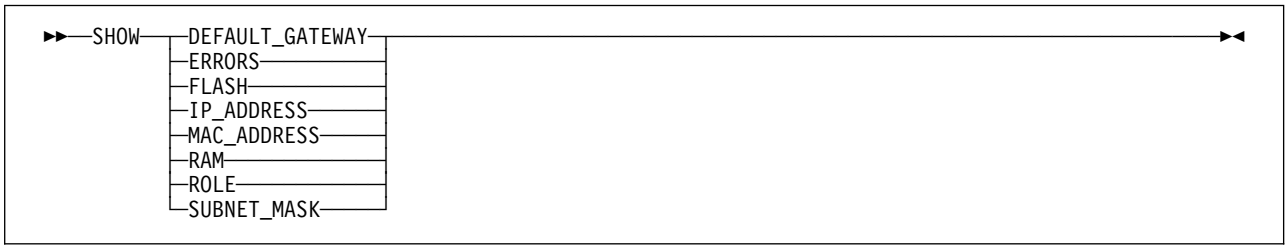
PRIMARY | SECONDARY
Specifies whether the local CPSW module is to be the "Active" CPSW (PRIMARY) or the "Standby" CPSW (SECONDARY).

Note: When the ATM subsystem elects which CPSW is to be active (at power-on for example), the CPSW that is defined as PRIMARY will be chosen. If both CPSWs have been defined as PRIMARY (or both as SECONDARY, the module in slots 9 & 10 is selected as PRIMARY.

subnet_mask
Specifies the subnet mask used by the CPSW.

SHOW

Use this command to display basic device settings for the CPSW.



DEFAULT_GATEWAY
Displays the current IP address for the default gateway.

ERRORS Displays the results of an unsuccessful DOWNLOAD OUT_OF_BAND.

FLASH Displays the code levels in the Operational and Boot Flash EEPROMs.

IP_ADDRESS
Displays the current IP address for the CPSW.

MAC_ADDRESS
Displays the current MAC address for the CPSW.

RAM Displays the amount of Random Access Memory (RAM) installed.

ROLE Displays the current role of the CPSW module.

SUBNET_ MASK
Displays the current subnet mask for the CPSW.

Examples

ERRORS: This example shows the result of the SHOW ERRORS command after an unsuccessful DOWNLOAD OUT_OF_BAND command:

```
>> show errors
FF FF 0002 0007
>>
```

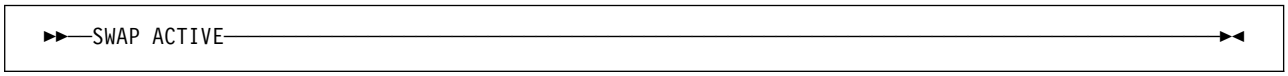
FLASH: This example shows the result of the SHOW FLASH command after a successful DOWNLOAD OUT_OF_BAND command:

Maintenance Mode SHOW

```
>> show flash

Boot:
Good checksum.
Map of Jan 10 08:12:34 1996
v.2.1.0
Oper 1 of 2: ACTIVE
Good checksum
Map of Jan 11 09:23:45 1996
v.1.2.3
Oper 2 of 2:
Good checksum
Map of Dec 12 10:34:56 1995
v.1.2.0.
>>
```

SWAP ACTIVE

Use this command to change the "Backup" (inactive) Operational Flash EEPROM to "Active".

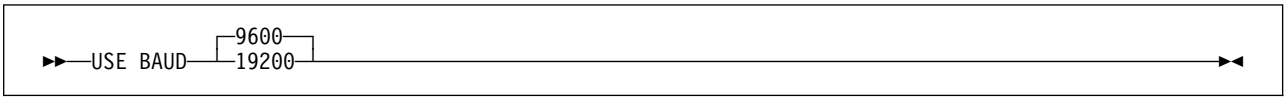


Usage Notes

- Use the SHOW FLASH command to verify which of the two flash EEPROMs is the active one ("`oper 1 of 2`", or "`oper 2 of 2`"), and which versions of the ATM Control Point operational microcode are present.

USE BAUD

Use this command to increase the baud rate of the configuration console connection while performing a DOWNLOAD OUT_OF_BAND, and to reset the baud rate after the download is finished.



Usage Notes

- Changes to the baud rate made while in Maintenance mode are not saved and the setting reverts to its saved value at the next BOOT or system reset.

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Industry Standards Reflected in This Product

The IBM 8265 Nways ATM Switch complies with the following ATM standards:

- ATM User-Network Interface (UNI) Specification V3.0, V3.1, and V4.0 ATM Forum
- ATM Private Network-Network Interface (PNNI) Phase 1 Specification V1.0, ATM Forum
- LAN Emulation Over ATM Specifications V1.0, ATM Forum
- Q.2110 Service Specific Connection-Oriented Protocol (SSCOP), ITU, March 17, 1994
- Q.2130 Service Specific Coordination Function (SSCF) for support of signaling at the user-network interface, March 17, 1994.

The IBM 8265 Nways ATM Switch is designed according to the specifications of the following industry standards as understood and interpreted by IBM as of September 1994:

- RFC854 - TELNET protocol
- RFC1350 - Trivial File Transfer Protocol (TFTP)
- RFC1577 - Classical IP and ARP (Address Resolution Protocol) over ATM
- SNMP:
  - RFC1155 - Structure and Identification of Management Information (SMI) for TCP/IP based Internet.
  - RFC1156 - Management Information Base (MIB) for network management of TCP/IP based Internets (MIB-I)
  - RFC1157 - Simple Network Management Protocol (SNMP)
  - RFC1212 - Concise MIB definitions
  - RFC1213 - Management Information Base (MIB) for network management of TCP/IP based Internets (MIB-II)
  - RFC1215 - Convention for defining traps for use with SNMP.

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For more information, see the *IBM Telecommunication Products Safety Handbook*, GA33-0126.

Bibliography

For additional information on the IBM 8265 ATM Switch, please refer to the following documents:

IBM 8265 Nways ATM Switch Product Description, GA33-0449.

IBM 8265 Nways ATM Switch Command Reference Guide, SA33-0458.

IBM 8265 Nways ATM Switch Installation Guide, SA33-0441.

IBM 8265 Nways ATM Switch Planning and Site Preparation Guide, GA33-0460.

IBM 8265 Nways ATM Switch Media Module Reference Guide, SA33-0381.

Multiprotocol Switched Services (MSS) Server Command Line Interface, Volume 1: User's Guide and Protocol Reference, SC30-3818.

Multiprotocol Switched Services (MSS) Server Command Line Interface, Volume 2: User's Guide and Protocol Reference, SC30-3819.

Multiprotocol Switched Services (MSS) Server Service Manual, GY27-0354.

Multiprotocol Switched Services (MSS) Server Setup and Problem Determination Guide, GA27-4140.

Nways Multiprotocol Switched Services (MSS) Server Module Setup and Problem Determination Guide, GA27-4141.

Nways MAS/MRS/MSS Library, Configuration Program User's Guide for Nways Multiprotocol Access, Routing and Switched Services, GC30-3830.

Nways Event Logging System Messages Guide, SC30-3682.

8271 LAN Switch Module Planning and Installation Guide, GA27-4162.

8272 LAN Switch Module Planning and Installation Guide, GA27-4163.

4-Port 10BASE-T & 3-Port 10BASE-FL UFCs Planning and Installation Guide, GA27-4120.

100BASE-TX and 100BASE-FX Universal Feature Cards Planning and Installation Guide, GA27-4096.

ATM 155Mbps Multimode Fiber Universal Feature Card Planning and Installation Guide, GA27-4156.

2-Port Fiber and 4-Port UTP/STP Token-Ring Enhanced Universal Feature Card Planning and Installation Guide, GA27-4168.

IBM Video Distribution Module User's Guide, GA27-4173.

The 8260 Nways ATM Kit Development Program, We Carry Your Creativity to ATM, GA33-0371.

The ATM Forum:

- *UNI Specification – Versions 3.0, 3.1, and 4.0*
- *P-NNI Specification Version 1.0*
- *ILMI Specification Version 4.0*
- *UNI Traffic Management Version 4.0*

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