show sessions

To display information about open local-area transport (LAT), Telnet, or rlogin connections, use the **show sessions** command in EXEC mode.

show sessions

Syntax Description

This command has no arguments or keywords.

Command Modes

EXEC

Command History

Release	Modification
10.0	This command was introduced.

Usage Guidelines

This command display the host name, address, number of unread bytes for the user to receive, idle time, and connection name.

Examples

The following is sample output from the **show sessions** command:

```
Router# show sessions

Conn Host                Address          Byte    Idle  Conn Name
   1 MATHOM              192.168.7.21        0       0  MATHOM
*  2 CHAFF               172.25.12.19        0       0  CHAFF
```

The asterisk (*) indicates the current terminal session.

Table 103 describes significant fields shown in the display.

Table 103 show sessions Field Descriptions

Field	Description
Conn	Name or address of the remote host to which the connection is made.
Host	Remote host to which the router is connected through a Telnet session.
Address	IP address of the remote host.
Byte	Number of unread bytes displayed for the user to receive.
Idle	Interval (in minutes) since data was last sent on the line.
Conn Name	Assigned name of the connection.

Related Commands

Command	Description
protocol (VPDN)	Sets X.3 parameters for PAD connections.
where	Lists open sessions associated with the current terminal line.

show sgbp

To display the status of the stack group members, use the **show sgbp** command in EXEC mode.

show sgbp

Syntax Description

This command has no arguments or keywords.

Command Modes

EXEC

Command History

Release	Modification
11.2	This command was introduced.

Examples

The following is sample output from the **show sgbp** command:

```
Router# show sgbp

Group Name: stack State: 0 Ref: 0xC07B060
  Member Name: systemb State: ACTIVE  Id: 1
  Ref: 0xC14256F
  Address: 10.1.1.1 Tcb: 0x60B34538

  Member Name: systemc State: ACTIVE  Id: 2
  Ref: 0xA24256D
  Address: 10.1.1.2 Tcb: 0x60B34439

  Member Name: systemd State: IDLE Id: 3
  Ref: 0x0
  Address: 10.1.1.3 Tcb: 0x0
```

Table 104 describes the significant fields shown in the display.

Table 104 show sgbp Field Descriptions

Field	Description
Group Name	Name of the stack group.
State	Status of the group or its member. The values are 0 for the stack group itself, and either ACTIVE or IDLE for each of the members of the group.
Member Name	Name of a specific host defined as a member of this stack group.
Id	Identifier used for each member of the group; typically the final digit of the host's IP address on the network they share.
Address	IP address of the stack group member.

show sgbp queries

To display the current seed bid value, use the **show sgbp queries** command in EXEC mode.

show sgbp queries

Syntax Description

This command has no arguments or keywords.

Command Modes

EXEC

Command History

Release	Modification
11.2	This command was introduced.

Examples

The following example shows a bid of 50 from this system. Peers queried the system for the bid, the bid was accepted, and a connection was opened from a peer in the stack group.

```
Router# show sgbp queries

Seed bid: default, 50

Bundle: book State: Query_from_peers OurBid: 50
10.1.1.2         State: Open_from_peer   Bid: 050 Retry: 0
```

Table 105 describes the significant fields shown in the display.

Table 105 show sgbp queries Field Descriptions

Field	Description
Seed bid	The initial bid; in this case, the default 50.
Bundle	Name of the MMP bundle.
State	Activity that occurred. In this case, a peer queried this system for its bid for the specified bundle.
OurBid	What this system bid for the bundle. It bid 50.
10.1.1.2	The peer's IP address.
State Bid Retry	Activity that occurred on the bid. In this case, the stack-group peer 1.1.1.2 accepted this system's bid of 50 for the bundle and opened a connection with this system. Since the peer opened a connection, no retry was needed.

show snapshot

To display snapshot routing parameters associated with an interface, use the **show snapshot** command in EXEC mode.

show snapshot [*interface-type interface-number*]

Syntax Description

interface-type interface-number	(Optional) Interface type and number.

Command Modes

EXEC

Command History

Release	Modification
10.3	This command was introduced.

Examples

The following is sample output from the **show snapshot** command:

```
Router# show snapshot serial 1

Serial1 is up, line protocol is up, snapshot up
Options: dialer support
Length of each activation period: 3 minutes
Period between activations:       10 minutes
Retry period on connect failure:  10
For dialer address 240
 Current queue: active, remaining active time: 3 minutes
 Updates received this cycle: ip, ipx, appletalk
For dialer address 1
 Current queue: client quiet, time until next activation: 7 minutes
```

Table 106 describes the significant fields shown in the display.

Table 106 show snapshot Field Descriptions

Field	Description
Serial1 is up, line protocol is up	Indicates whether the interface hardware is currently active (whether carrier detect is present) and whether it has been taken down by an administrator.
snapshot up	Indicates whether the snapshot protocol is enabled on the interface.
Options:	Option configured on the **snapshot client** or **snapshot server** interface configuration command. It can be one of the following: • dialer support—Snapshot routing is configured with the **dialer** keyword. • stay asleep on carrier up—Snapshot routing is configured with the **suppress-statechange-updates** keyword.
Length of each activation period	Length of the active period.

Table 106 show snapshot Field Descriptions (continued)

Field	Description
Period between activations	Length of the quiet period.
Retry period on connect failure	Length of the retry period.
For dialer address	Displays information about each dialer rotary group configured with the **dialer map** command.
Current queue:	Indicates which period snapshot routing is currently in. It can be one of the following: • active—Routing updates are being exchanged. • client quiet—The client router is in a quiet period and routing updates are not being exchanged. • server quiet—The server router is in a quiet period, awaiting an update from the client router before awakening, and routing updates are not being exchanged. • post active—Routing updates are not being exchanged. If the server router receives an update from the client router, it processes it but does not begin an active period. This allows time for resynchronization of active periods between the client and server routers. • no queue—This is a temporary holding queue for new snapshot routing interfaces and for interfaces being deleted.
remaining active time time until next activation	Time remaining in the current period.
Updates received this cycle	Protocols from which routing updates have been received in the current active period. This line is displayed only if the router or access server is in an active period.

show spe

To show Service Processing Element (SPE) status, use the **show spe** command in EXEC mode.

Cisco AS5400 with NextPort DFC

show spe [*slot* | *slot/spe*]

Cisco AS5800 with Universal Port Card

show spe [*shelf/slot* | *shelf/slot/spe*]

Syntax Description

slot	(Optional) All ports on the specified slot. For the AS5400, slot values range from 0 to 7.
slot/spe	(Optional) All ports on the specified slot and SPE. For the AS5400, slot values range from 0 to 7 and SPE values range from 0 to 17.
shelf/slot	(Optional) All ports on the specified shelf and slot. For the AS5800, shelf values range from 0 to 1 and UPC slot values range from 2 to 11.
shelf/slot/spe	(Optional) All ports on the specified SPE. For the AS5800, shelf values range from 0 to 1, slot values range from 2 to 11, and SPE values range from 0 to 53.

Command Modes

EXEC

Command History

Release	Modification
12.1(1)XD	This command was introduced on the Cisco AS5400.
12.1(3)T	This command was implemented on the Cisco AS5800.

Usage Guidelines

Use the **show spe** command to display history statistics of all SPEs, a specified SPE, or the specified range of SPEs.

Examples

The following example displays history statistics for all SPEs after a busyout was executed on SPE 2/0 and a shutdown was executed on SPE 2/1 on the Cisco AS5400:

```
Router# show spe

SPE settings:
==============
Country code configuration: default T1 (u Law)
Polling interval: 12 secs.
History log events: 50(per port)
Port legends:
============
Port state: (s)shutdown (t)test (r)recovery (d)download
            (b)busiedout (p)busyout pending, (B)bad (a)active call
Call Type: (m)modem (d)digital (_)not in use
```

```
                    SPE          SPE     SPE  SPE   Port         Call
SPE#    Port #      State        Busyout Shut Crash State        Type
2/00    0000-0005   ACTIVE             0    0     0 aaaaaa       dddddd
2/01    0006-0011   ACTIVE             0    0     0 aaaaaa       dddddd
2/02    0012-0017   ACTIVE             0    0     0 aaaaaa       dddddd
2/03    0018-0023   ACTIVE             0    0     0 aaaaaa       dddmdm
2/04    0024-0029   ACTIVE             0    0     0 aaaaaa       dmmmmm
2/05    0030-0035   ACTIVE             0    0     0 aaa_aa       mmm_mm
2/06    0036-0041   ACTIVE             0    0     0 __aaaa       __mmmm
2/07    0042-0047   ACTIVE             0    0     0 aaa_aa       mmm_mm
2/08    0048-0053   ACTIVE             0    0     0 _aaa_a       _mmm_m
2/09    0054-0059   ACTIVE             0    0     0 _aa_aa       _md_mm
2/10    0060-0065   ACTIVE             0    0     0 _a_a_a       _m_m_m
2/11    0066-0071   ACTIVE             0    0     0 _a_aaa       _d_mmd
2/12    0072-0077   ACTIVE             0    0     0 aaaaaa       mdmmmd
2/13    0078-0083   ACTIVE             0    0     0 _aaaaa       _dmmdm
2/14    0084-0089   ACTIVE             0    0     0 _a_aaa       _m_ddd
2/15    0090-0095   ACTIVE             0    0     0 a_aaaa       m_dddd
2/16    0096-0101   ACTIVE             0    0     0 aaaaaa       ddddmd
2/17    0102-0107   ACTIVE             0    0     0 aaaaaa       dddddd
```

The following example shows output for the **show spe** command on the Cisco AS5800 with universal port card. This example shows SPE settings for slot 2, SPEs 0 to 53:

```
Router# show spe

SPE settings
==============
Country code configuration default T1 (u Law)
Polling interval 12 secs.
History log events 50(per port)
Port legends
============
Port state (s)shutdown (t)test (r)recovery (d)download
            (b)busiedout (p)busyout pending, (B)bad (a)active call
Call type (m)modem (d)digital (_)not in use

                     SPE          SPE     SPE  SPE   Port         Call
SPE#    Port #       State        Busyout Shut Crash State        Type
1/02/00 0000-0005    ACTIVE             0    0     0 a_a_a_       m_m_m_
1/02/01 0006-0011    ACTIVE             0    0     0 aaa___       mmm___
1/02/02 0012-0017    ACTIVE             0    0     0 _a_aa_       _m_mm_
1/02/03 0018-0023    ACTIVE             0    0     0 _aaaaa       _mmmmm
1/02/04 0024-0029    ACTIVE             0    0     0 a_a_a_       m_m_m_
1/02/05 0030-0035    ACTIVE             0    0     0 ____a_       ____m_
1/02/06 0036-0041    ACTIVE             0    0     0 _aaa_a       _mmm_m
1/02/07 0042-0047    ACTIVE             0    0     0 a_____       m_____
1/02/08 0048-0053    ACTIVE             0    0     0 _aa_aa       _mm_mm
1/02/09 0054-0059    ACTIVE             0    0     0 _aa_aa       _mm_mm
1/02/10 0060-0065    ACTIVE             0    0     0 _a_a_a       _m_m_m
1/02/11 0066-0071    ACTIVE             0    0     0 a__aa_       m__mm_
1/02/12 0072-0077    ACTIVE             0    0     0 aaa___       mmm___
1/02/13 0078-0083    ACTIVE             0    0     0 aaaa_a       mmmm_m
1/02/14 0084-0089    ACTIVE             0    0     0 _aaa__       _mmm__
1/02/15 0090-0095    ACTIVE             0    0     0 a__aaa       m__mmm
1/02/16 0096-0101    ACTIVE             0    0     0 _aaaa_       _mmmm_
1/02/17 0102-0107    ACTIVE             0    0     0 _aaa_a       _mmm_m
1/02/18 0108-0113    ACTIVE             1    0     0 _aaaaa       _mmmmm
1/02/19 0114-0119    ACTIVE             1    0     0 aa_aa_       mm_mm_
1/02/20 0120-0125    ACTIVE             1    0     0 aa__aa       mm__mm
1/02/21 0126-0131    ACTIVE             1    0     0 aaa_aa       mmm_mm
1/02/22 0132-0137    ACTIVE             1    0     0 _a____       _m____
1/02/23 0138-0143    ACTIVE             1    0     0 a__aaa       m__mmm
```

```
1/02/24 0144-0149    ACTIVE              1     0      0 a_a_aa        m_m_mm
1/02/25 0150-0155    ACTIVE              1     0      0 ___aaa        ___mmm
1/02/26 0156-0161    ACTIVE              1     0      0 a_a__a        m_m__m
1/02/27 0162-0167    ACTIVE              1     0      0 a_a_aa        m_m_mm
1/02/28 0168-0173    ACTIVE              1     0      0 a___aa        m___mm
1/02/29 0174-0179    ACTIVE              1     0      0 _a____        _m____
1/02/30 0180-0185    ACTIVE              1     0      0 _aaaaa        _mmmmm
1/02/31 0186-0191    ACTIVE              1     0      0 _a_aa_        _m_mm_
1/02/32 0192-0197    ACTIVE              1     0      0 aaa__a        mmm__m
1/02/33 0198-0203    ACTIVE              1     0      0 a_a__a        m_m__m
1/02/34 0204-0209    ACTIVE              1     0      0 aaaaaa        mmmmmm
1/02/35 0210-0215    ACTIVE              1     0      0 _aa__a        _mm__m
1/02/36 0216-0221    ACTIVE              0     0      0 a_a_aa        m_m_mm
1/02/37 0222-0227    ACTIVE              0     0      0 a_aaaa        m_mmmm
1/02/38 0228-0233    ACTIVE              0     0      0 aaaaaa        mmmmmm
1/02/39 0234-0239    ACTIVE              0     0      0 aa_aa_        mm_mm_
1/02/40 0240-0245    ACTIVE              0     0      0 aa_aaa        mm_mmm
1/02/41 0246-0251    ACTIVE              0     0      0 a__a__        m__m__
1/02/42 0252-0257    ACTIVE              0     0      0 aa__aa        mm__mm
1/02/43 0258-0263    ACTIVE              0     0      0 aaa_aa        mmm_mm
1/02/44 0264-0269    ACTIVE              0     0      0 aaaa_a        mmmm_m
1/02/45 0270-0275    ACTIVE              0     0      0 aaa_a_        mmm_m_
1/02/46 0276-0281    ACTIVE              0     0      0 aaaaa_        mmmmm_
1/02/47 0282-0287    ACTIVE              0     0      0 _aaaa_        _mmmm_
1/02/48 0288-0293    ACTIVE              0     0      0 a_aa_a        m_mm_m
1/02/49 0294-0299    ACTIVE              0     0      0 aa_a_a        mm_m_m
1/02/50 0300-0305    ACTIVE              0     0      0 aa_aaa        mm_mmm
1/02/51 0306-0311    ACTIVE              0     0      0 aaaaa_        mmmmm_
1/02/52 0312-0317    ACTIVE              0     0      0 aaaaaa        mmmmmm
1/02/53 0318-0323    ACTIVE              0     0      0 aaaa_a        mmmm_m
```

Table 107 describes the significant fields shown in the display.

Table 107 show spe Field Descriptions

Field	Description
SPE #	Specifies the slot and port number of the SPE.
Port #	Displays the port number.
SPE State	Displays the state of the SPE port.
SPE Busyout	Displays the number of busyout calls.
SPE Shut	Indicates if the port is shut down.
SPE Crash	Specifies if the port has crashed.
Port State	Indicates if the port is active or idle.
Call type	Data, modem or fax call type.

Related Commands

Command	Description
show spe digital active	Displays active digital calls and digital statistics of all SPEs, a specified SPE, or the specified range of SPEs.
show spe modem active	Displays active modem statistics of all SPEs, a specified SPE, or the specified range of SPEs.

show spe digital

To display history statistics of all digital Service Processing Elements (SPEs), in summary form or for SPEs starting with a specified slot or a specified shelf/slot/range of SPEs, use the **show spe digital** command in EXEC mode.

show spe digital [*slot* | *slot/spe*]

Note This command is not supported on the Cisco AS5800 with the universal port card.

Syntax Description

slot	(Optional) All ports on the specified slot. For the AS5400, slot values range from 0 to 7.
slot/spe	(Optional) All ports on the specified slot and SPE. For the AS5400, slot values range from 0 to 7 and SPE values range from 0 to 17.

Command Modes

EXEC

Command History

Release	Modification
12.1(1)XD	This command was introduced.
12.1(3)T	This command was implemented on the Cisco AS5400.

Usage Guidelines

Use the **show spe digital** command on the Cisco AS5400 with NextPort DFC.

Examples

The following is sample output from the **show spe digital** command on the Cisco AS5400 with NextPort DFC. This example shows statistics for slot 5, SPE 4:

```
Router# show spe digital 5/4

#SPE 5/04
Cisco Universal SPE; Fw: 0.06.07.03; Async5/24 - 5/29, TTY672 - 677
Last clearing of statistics counters          :  never
      11 incoming completes         24 incoming failures
       0 outgoing completes          0 outgoing failures
       0 failed dial attempts        0 ring no answers
       0 no dial tones               0 link failures
       0 watchdog timeouts           0 protocol errors
       0 dial timeouts

Transmit Speed Counters       :
 Speed    Calls  Speed    Calls  Speed    Calls  Speed    Calls
Speed    Calls
 64000        0  28800        0  14400        0   7200        0
1200        0
 56000        0  24000        0  12000        0   4800        1
600        0
 38400        0  19200       10   9600        0   2400        0
```

```
Receive Speed Counters       :
 Speed    Calls  Speed    Calls  Speed    Calls  Speed    Calls
Speed    Calls
 64000        0  28800        0  14400        0   7200        0
1200        0
 56000        0  24000        0  12000        0   4800        1
600        0
 38400        0  19200       10   9600        0   2400        0
```

Table 108 describes the significant fields shown in the display.

Table 108 show spe digital Field Descriptions

Field	Description
SPE #	Specifies the slot and port number of the SPE.
Cisco Universal SPE	Firmware version installed on the SPE.
Last clearing of statistics counters	Last time the modem's counters were cleared using **clear modem** counters command.
Transmit Speed Counters	List of connection speeds that were transmitted by the SPE.
Receive Speed Counters	List of connection speeds that were received by the SPE.

Related Commands

Command	Description
show spe digital active	Displays active digital calls and digital statistics of all SPEs, a specified SPE, or the specified range of SPEs.
show spe digital csr	Displays digital calls success rate (CSR) statistics of all SPEs, a specified SPE, or the specified range of SPEs.
show spe digital disconnect-reason	Displays the local disconnect reasons for all digital calls on the SPEs, a specified SPE, or the specified range of SPEs.
show spe digital summary	Displays history statistics of all SPEs, a specified SPE, or the specified range of SPEs.

show spe digital active

To display active digital calls and digital statistics of all Service Processing Elements (SPEs), a specified SPE, or the specified range of SPEs, use the **show spe digital active** command in EXEC mode.

show spe digital active [*slot* | *slot/spe*]

Note This command is not supported on the Cisco AS5800 with the universal port card.

Syntax Description

slot	(Optional) All ports on the specified slot. For the AS5400, slot values range from 0 to 7.
slot/spe	(Optional) All ports on the specified slot and SPE. For the AS5400, slot values range from 0 to 7 and SPE values range from 0 to 17.

Command Modes

EXEC

Command History

Release	Modification
12.1(1)XD	This command was introduced.
12.1(3)T	This command was implemented on the Cisco AS5400

Usage Guidelines

Use the **show spe digital active** command on the Cisco AS5400 with NextPort DFC.

Examples

The following is sample output from the **show spe digital active** command on the Cisco AS5400 with NextPort DFC. This example displays active digital statistics for slot 5, SPE 6:

```
Router# show spe digital active 5

SPE 5/06
                        Char             Sync
Port  Prot    Duration  Tx/Rx       Cfg  Loss
41    V.110   188       19200/19200 In   0

SPE 5/09
                        Char             Sync
Port  Prot    Duration  Tx/Rx       Cfg  Loss
54    V.110   187       19200/19200 In   0
56    V.110   187       19200/19200 In   0
57    V.110   188       19200/19200 In   0
.
.
.
```

Table 109 describes the significant fields shown in the display.

Table 109 show spe digital active Field Descriptions

Field	Description
SPE #	Specifies the slot and port number of the SPE.
Port	Port that is active.
Protocol	Protocol used for the call in progress.
Duration	Duration of call.
Char Tx/Rx	Characters transmitted and received.

Related Commands

Command	Description
show spe digital	Displays history statistics of all digital SPEs, in summary form or for SPEs starting with a specified slot or a specified shelf/slot/range of SPEs.
show spe digital csr	Displays digital calls success rate (CSR) statistics of all SPEs, a specified SPE, or the specified range of SPEs.
show spe digital disconnect-reason	Displays the local disconnect reasons for all digital calls on the SPEs, a specified SPE, or the specified range of SPEs.
show spe digital summary	Display history statistics of all SPEs, a specified SPE, or the specified range of SPEs.

show spe digital csr

To display digital calls success rate (CSR) statistics of all Service Processing Elements (SPEs), a specified SPE, or the specified range of SPEs, use the **show spe digital csr** command in EXEC mode.

show spe digital csr [**summary** | *slot* | *slot*/*spe*]

Note This command is not supported on the Cisco AS5800 with the universal port card.

Syntax Description

summary	(Optional) Summary digital CSR statistics.
slot	(Optional) All ports on the specified slot. For the AS5400, slot values range from 0 to 7.
slot/*spe*	(Optional) All ports on the specified slot and SPE. For the AS5400, slot values range from 0 to 7 and SPE values range from 0 to 17.

Command Modes

EXEC

Command History

Release	Modification
12.1(1)XD	This command was introduced.
12.1(3)T	This command was implemented on the Cisco AS5400.

Usage Guidelines

Use the **show spe digital csr** command on the Cisco AS5400 with NextPort DFC.

Examples

The following is sample output from the **show spe digital csr** command on the Cisco AS5400 with universal port card. This example displays the number of call success rate counters for slot 5:

```
Router# show spe digital csr 5

          Avg Hold     Inc calls     Out calls    Failed    No       Succ
SPE         Time      Succ   Fail   Succ   Fail   Dial    Answer    Pct
5/00      00:04:22       6      0      0      0       0       0    100%
5/01      00:04:22       6      0      0      0       0       0    100%
5/02      00:04:22       6      0      0      0       0       0    100%
5/03      00:04:22       6      0      0      0       0       0    100%
5/04      00:04:22       6      0      0      0       0       0    100%
5/05      00:04:21       6      0      0      0       0       0    100%
5/06      00:04:22       4      0      0      0       0       0    100%
5/07      00:04:22       1      0      0      0       0       0    100%
5/08      00:04:21       6      0      0      0       0       0    100%
5/09      00:04:23       5      0      0      0       0       0    100%
5/10      00:00:00       0      0      0      0       0       0      0%
5/11      00:04:21       5      0      0      0       0       0    100%
5/12      00:04:20       2      0      0      0       0       0    100%
5/13      00:00:00       0      0      0      0       0       0      0%
```

```
5/14      00:00:00       0       0       0       0       0       0       0%
5/15      00:00:00       0       0       0       0       0       0       0%
5/16      00:00:00       0       0       0       0       0       0       0%
5/17      00:00:00       0       0       0       0       0       0       0%
```

Table 110 describes the significant fields shown in the display.

Table 110 show spe digital csr Field Descriptions

Field	Description
SPE	The SPE slot and port number.
Average Hold Time	The average hold time.
Incoming Calls, Successful and Failed	The cumulative number of incoming calls that have succeeded and failed in the configured time period.
Outgoing Calls, Successful and Failed	The cumulative number of outgoing calls that have succeeded and failed in the configured time period.
Failed Dial	The number of calls that failed when dialed.
No Answer	The number of calls that did not have pick up.
Success of PCT	The call success rate of the carrier.

Related Commands

Command	Description
show spe digital	Displays history statistics of all digital SPEs, in summary form or for SPEs starting with a specified slot or a specified shelf/slot/range of SPEs.
show spe digital active	Displays active digital calls and digital statistics of all SPEs, a specified SPE, or the specified range of SPEs.
show spe digital disconnect-reason	Displays the local disconnect reasons for all digital calls on the SPEs, a specified SPE, or the specified range of SPEs.
show spe digital summary	Displays history statistics of all SPEs, a specified SPE, or the specified range of SPEs.

show spe digital disconnect-reason

To display the local disconnect reasons for all digital calls on the Service Processing Elements (SPEs), a specified SPE, or the specified range of SPEs, use the **show spe digital disconnect-reason** command in EXEC mode.

show spe digital disconnect-reason [**summary** | *slot* | *slot*/*spe*]

Note This command is not supported on the Cisco AS5800 with the universal port card.

Syntax Description

summary	(Optional) Summary of local disconnect reasons for digital ports.
slot	(Optional) All ports on the specified slot. For the AS5400, slot values range from 0 to 7.
slot/*spe*	(Optional) All ports on the specified slot and SPE. For the AS5400, slot values range from 0 to 7 and SPE values range from 0 to 17.

Command Modes

EXEC

Command History

Release	Modification
12.1(1)XD	This command was introduced.
12.1(3)T	This command was implemented on the Cisco AS5400.

Usage Guidelines

Use the **show spe digital disconnect-reason** command on the Cisco AS5400 with NextPort DFC.

Examples

The following is sample output from the **show spe digital disconnect-reason** command on the Cisco AS5400 with NextPort DFC. This example displays reasons for digital call disconnects on slot 5:

```
Router# show spe digital disconnect-reason 5

#SPE 5/00   :
=====CLASS HOST======      =====CLASS SERVICE=====
NonSpecific         0  ATH                 0
Busy                0  Aborted             0
No Answer           0  Connect Timeout     0
DTR                 0  Sync Loss           0
ATH                 0
NoDialTone          0
No Carrier          0
ACK                 0  TOTAL               0

#SPE 5/03   :
```

```
=====CLASS HOST======      =====CLASS SERVICE=====
NonSpecific          0  ATH                   0
Busy                 1  Aborted               0
No Answer            0  Connect Timeout       0
DTR                  0  Sync Loss             0
.
.
.
```

Related Commands

Command	Description
show spe digital	Displays history statistics of all digital SPEs, in summary form or for SPEs starting with a specified slot or a specified shelf/slot/range of SPEs.
show spe digital active	Displays active digital calls and digital statistics of all SPEs, a specified SPE, or the specified range of SPEs.
show spe digital csr	Displays digital calls success rate (CSR) statistics of all SPEs, a specified SPE, or the specified range of SPEs.
show spe digital summary	Displays history statistics of all SPEs, a specified SPE, or the specified range of SPEs.

show spe digital summary

To display history statistics of all Service Processing Elements (SPEs), a specified SPE, or the specified range of SPEs, use the **show spe digital summary** command in EXEC mode.

show spe digital summary [*slot* | *slot*/*spe*]

Note This command is not supported on the Cisco AS5800 with the universal port card.

Syntax Description

slot	(Optional) All ports on the specified slot. For the AS5400, slot values range from 0 to 7.
slot/*spe*	(Optional) All ports on the specified slot and SPE. For the AS5400, slot values range from 0 to 7 and SPE values range from 0 to 17.

Command Modes

EXEC

Command History

Release	Modification
12.1(1)XD	This command was introduced.
12.1(3)T	This command was implemented on the Cisco AS5400.

Usage Guidelines

Use the **show spe digital summary** command on the Cisco AS5400 with NextPort DFC.

Examples

The following is sample output from the **show spe digital summary** command on the Cisco AS5400 with NextPort DFC. This example displays active digital statistics for slot 5:

```
Router# show spe digital summary 5

Async5/00 - 5/107, TTY648 - 755
     209 incoming completes        397 incoming failures
       0 outgoing completes          0 outgoing failures
       0 failed dial attempts        0 ring no answers
       0 no dial tones               0 link failures
       0 watchdog timeouts           0 protocol errors
       0 dial timeouts

Transmit Speed Counters       :
 Speed    Calls  Speed    Calls  Speed    Calls  Speed    Calls
Speed    Calls
 64000        0  28800        0  14400        0   7200        0
1200     20
 56000        0  24000        0  12000        0   4800       20
600      20
 38400        0  19200      149   9600        0   2400        0

Receive Speed Counters        :
 Speed    Calls  Speed    Calls  Speed    Calls  Speed    Calls
```

```
Speed    Calls
 64000        0  28800         0  14400         0   7200         0
1200     20
 56000        0  24000         0  12000         0   4800        20
600      20
 38400        0  19200       149   9600         0   2400         0
.
.
.
```

Related Commands.

Command	Description
show spe digital	Displays history statistics of all digital SPEs, in summary form or for SPEs starting with a specified slot or a specified shelf/slot/range of SPEs.
show spe digital active	Displays active digital calls and digital statistics of all SPEs, a specified SPE, or the specified range of SPEs.
show spe digital csr	Displays digital calls success rate (CSR) statistics of all SPEs, a specified SPE, or the specified range of SPEs.
show spe digital disconnect-reason	Displays the local disconnect reasons for all digital calls on the SPEs, a specified SPE, or the specified range of SPEs.

show spe log

To display the Service Processing Element (SPE) system log, use the **show spe log** command in EXEC mode.

Cisco AS5400 with NextPort DFC

show spe log [**reverse** | *slot*]

Cisco AS5800 with Universal Port Card

show spe log [**reverse** | *shelf/slot*]

Syntax Description

reverse	(Optional) Displays the SPE system log with the most recent event first.
slot	(Optional) All ports on the specified slot. For the AS5400, slot values range from 0 to 7.
shelf/slot	(Optional) All ports on the specified shelf and slot. For the AS5800, shelf values range from 0 to 1 and UPC slot values range from 2 to 11.

Command Modes

EXEC

Command History

Release	Modification
12.1(1)XD	This command was introduced on the Cisco AS5400.
12.1(3)T	This command was implemented on the Cisco AS5800.

Usage Guidelines

The **show spe log** command displays the slot history event log.

Examples

The following is sample output from the **show spe log** command on the Cisco AS5400 with NextPort DFC:

```
Router# show spe log

Slot 3 Events Log
  2d15h   : SPE State Event:
     Address: 0x3000000
     SPE    : 3/00
     Command: SPE_IMMEDIATE_DISABLE Complete
  2d14h   : SPE State Event:
     Address: 0x3000100
     SPE    : 3/06
     Command: SPE_IMMEDIATE_DISABLE Complete
  2d13h   : SPE State Event:
     Address: 0x3000200
     SPE    : 3/12
     Command: SPE_IMMEDIATE_DISABLE Complete
```

```
  00:00:26: SPE State Event:
     Address: 0x3000001
     SPE    : 3/01
     Command: SPE_IMMEDIATE_DISABLE Complete
Slot 4 Events Log
  2d13h   : SPE State Event:
     Address: 0x4000000
     SPE    : 4/00
     Command: SPE_IMMEDIATE_DISABLE Complete
Slot 7 Events Log
  2d15h   : Diag Post event:
     Address    : 0x7000204
     SPE        : 7/16
     Result     : SPE_POST_TEST_FAILED
     Test ID    : SPE_POWER_ON_SELF_TEST
     Diag Code  : 0xFE01C004
     Data Format: ASCII
     Data Len   : 0
```

Related Commands

Command	Description
clear spe log	Clears all event entries in the slot history event log.
show spe log reverse	Displays the slot history event log, with most recent event first.

show spe modem

To display the modem service history statistics for a specified Service Processing Element (SPE), use the **show spe modem** command in EXEC mode.

Cisco AS5400 with NextPort DFC

show spe modem {*slot* | *slot/spe*}

Cisco AS5800 with Universal Port Card

show spe modem {*shelf/slot* | *shelf/slot/spe*}

Syntax Description

slot	(Optional) All ports on the specified slot. For the AS5400, slot values range from 0 to 7.
slot/spe	(Optional) All ports on the specified slot and SPE. For the AS5400, slot values range from 0 to 7 and SPE values range from 0 to 17.
shelf/slot	(Optional) All ports on the specified shelf and slot. For the AS5800, shelf values range from 0 to 1 and UPC slot values range from 2 to 11.
shelf/slot/spe	(Optional) All ports on the specified SPE. For the AS5800, shelf values range from 0 to 1, slot values range from 2 to 11, and SPE values range from 0 to 53.

Command Modes

EXEC

Command History

Release	Modification
12.1(1)XD	This command was introduced on the Cisco AS5400.
12.1(3)T	This command was implemented on the Cisco AS5800.

Examples

The following is sample output from the **show spe modem** command on the Cisco AS5400 with NextPort DFC:

```
Router# show spe modem

Async1/2/00 - 1/3/323, TTY972 - 1619
     4819 incoming completes        287 incoming failures
        0 outgoing completes          0 outgoing failures
        0 failed dial attempts        0 ring no answers          0 autotests
        0 no carriers                11 dial timeouts            0
autotest fails
        0 no dial tones               0 link failures            0 fail count
        0 watchdog timeouts        2784 protocol errors          0 recovers
Transmit Speed Counters
  Speed    Calls  Speed    Calls  Speed    Calls  Speed    Calls  Speed Calls 60000
0  48000      431  38400        0  30666        0  12000 143 58000        0  46666
0  38000        4  29333        0   9600 5 56000       15  46000       56  37333      110
28800      700   7200 11 54666        0  45333      299  36000       84  28000        5
4800 2 54000        0  44000      226  34666        0  26400      266   2400 0 53333
122  42666        0  34000       39  24000       46   1200 3 52000      562  42000
```

```
68  33600       323  21600        27    300 0 50666         0  41333        38  33333         9
19200        38 50000        59  40000        65  32000        20  16800        12 49333
370  38666         0  31200       653  14400         5
Receive Speed Counters
  Speed    Calls  Speed    Calls  Speed    Calls  Speed    Calls  Speed Calls 38400
0  26400     2280  16800       11   7200         1    300 2 33600      113  24000      266
14400      139   4800         1 31200      215  21600       56  12000         4   2400
3 28800     1665  19200        47   9600        16   1200         0.
```

The following is sample output from the **show spe modem** command on the Cisco AS5800 with universal port card:

```
Router# show spe modem 1/8/0

#SPE 1/08/00
Cisco Universal SPE; Fw: 0.00.06.81; Async1/8/00 - 1/8/05, TTY2916 - 2921
Last clearing of statistics counters          :  never
      90 incoming completes          0 incoming failures
       0 outgoing completes          0 outgoing failures
       0 failed dial attempts        0 ring no answers          0 autotests
       0 no carriers                 0 dial timeouts            0 autotest fails
       0 no dial tones               0 link failures            0 fail count
       0 watchdog timeouts           0 protocol errors

Transmit Speed Counters       :
 Speed    Calls  Speed    Calls  Speed    Calls  Speed    Calls  Speed    Calls
 60000        0  48000        0  38400        0  30666        0  12000        0
 58000        0  46666        0  38000        0  29333        0   9600        0
 56000        0  46000        0  37333        0  28800        0   7200        0
 54666        0  45333        0  36000        0  28000        0   4800        0
 54000        0  44000        0  34666        0  26400        0   2400        0
 53333        0  42666        0  34000        0  24000        0   1200        0
 52000        0  42000        0  33600        0  21600        0    300        0
 50666        0  41333        0  33333        0  19200        0
 50000        0  40000        0  32000        0  16800        0
 49333        0  38666        0  31200       90  14400        0

Receive Speed Counters        :
 Speed    Calls  Speed    Calls  Speed    Calls  Speed    Calls  Speed    Calls
 38400        0  26400        0  16800        0   7200        0    300        0
 33600       11  24000        0  14400        0   4800        0
 31200       25  21600        0  12000        0   2400        0
 28800       54  19200        0   9600        0   1200        0
```

Related Commands

Command	Description
show spe	Displays history statistics of all SPEs, a specified SPE, or the specified range of SPEs.

show spe modem active

To display statistics of all active calls on specified Service Processing Elements (SPEs), use the **show spe modem active** command in EXEC mode.

Cisco AS5400 with NextPort DFC

show spe modem active {*slot* | *slot/spe*}

Cisco AS5800 with Universal Port Card

show spe modem active {*shelf/slot* | *shelf/slot/spe*}

Syntax Description

slot	All ports on the specified slot. For the AS5400, slot values range from 0 to 7.
slot/spe	All ports on the specified slot and SPE. For the AS5400, slot values range from 0 to 7 and SPE values range from 0 to 17.
shelf/slot	All ports on the specified shelf and slot. For the AS5800, shelf values range from 0 to 1 and UPC slot values range from 2 to 11.
shelf/slot/spe	All ports on the specified SPE. For the AS5800, shelf values range from 0 to 1, slot values range from 2 to 11, and SPE values range from 0 to 53.

Command Modes

EXEC

Command History

Release	Modification
12.1(1)XD	This command was introduced on the Cisco AS5400.
12.1(3)T	This command was implemented on the Cisco AS5800.

Examples

The following is sample output from the **show spe modem active** command on the Cisco AS5400 with NextPort DFC.This example displays active modem statistics for slot 5, SPE 6:

```
Router# show spe modem active 5/6

SPE 5/06
Port  Type     Prot     Comp    Duration  Tx/Rx     Tx/Rx(Lvl) SNR Cfg  Retrain
37    V.90     LAP-M    V.42bis  95      3890/76     --/-11     38  In   0
```

The following is sample output from the **show spe modem active** command on the Cisco AS5800 with universal port card. This example displays active modem statistics for shelf 1, slot 8:

```
Router# show spe modem active 1/8

SPE 1/08/34
Port  Type     Prot     Comp    Duration  Tx/Rx(bps) Tx/Rx(Lvl) SNR Cfg  Retrain
209   V.34+    LAP-M    V.42bis  23      28800/31200  --/-13     37  In   0

SPE 1/08/35
Port  Type     Prot     Comp    Duration  Tx/Rx(bps) Tx/Rx(Lvl) SNR Cfg  Retrain
215   V.34+    LAP-M    V.42bis  12      28800/31200  --/-13     37  In   0
```

```
SPE 1/08/36
Port   Type      Prot      Comp     Duration  Tx/Rx(bps) Tx/Rx(Lvl) SNR Cfg  Retrain
216    V.34+     LAP-M     V.42bis  24       33600/31200  --/-36     38  In   0
217    ##        ##        ##        0       33600/300    --/19      37  In   0
218    ##        ##        ##        0       33600/300    --/19      37  In   0
219    ##        ##        ##        0       33600/300    --/19      35  In   0
```

Related Commands

Command	Description
show port operational-status	Displays the operational status of a specific port or port range.
show spe	Displays history statistics of all SPEs, a specified SPE, or the specified range of SPEs.

show spe modem csr

To display the call success rate for the specified Service Processing Elements (SPEs), use the **show spe modem csr** command in EXEC mode.

Cisco AS5400 with NextPort DFC

show spe modem csr {**summary** | *slot* | *slot/spe*}

Cisco AS5800 with Universal Port Card

show spe modem csr {**summary** | *shelf/slot* | *shelf/slot/spe*}

Syntax Description

summary	Displays all call success rate statistics for all SPEs.
slot	All ports on the specified slot. For the AS5400, slot values range from 0 to 7.
slot/spe	All ports on the specified slot and SPE. For the AS5400, slot values range from 0 to 7 and SPE values range from 0 to 17.
shelf/slot	All ports on the specified shelf and slot. For the AS5800, shelf values range from 0 to 1 and UPC slot values range from 2 to 11.
shelf/slot/spe	All ports on the specified SPE. For the AS5800, shelf values range from 0 to 1, slot values range from 2 to 11, and SPE values range from 0 to 53.

Command Modes

EXEC

Command History

Release	Modification
12.1(1)XD	This command was introduced on the Cisco AS5400.
12.1(3)T	This command was implemented on the Cisco AS5800.

Usage Guidelines

The **show spe modem csr** command displays the modem call success rate statistics for a specific SPE, range of SPEs, or all the SPEs. The **summary** keyword displays the call success rate statistics for all SPEs.

Examples

The following are sample outputs from the **show spe modem csr** command on the Cisco AS5400 with NextPort DFC:

```
Router# show spe modem csr 5/6

         Avg Hold     Inc calls     Out calls    Failed    No      Succ
SPE        Time      Succ   Fail   Succ   Fail   Dial    Answer    Pct
5/06     00:22:41       2      0      0      0       0       0    100%
```

```
Router# show spe modem csr 5/1 5/6

          Avg Hold     Inc calls     Out calls    Failed    No       Succ
SPE         Time      Succ   Fail   Succ   Fail   Dial    Answer    Pct
5/01      00:00:00       0      0      0      0       0       0      0%
5/02      00:00:00       0      0      0      0       0       0      0%
5/03      00:00:00       0      0      0      0       0       0      0%
5/04      00:00:00       0      0      0      0       0       0      0%
5/05      00:00:00       0      0      0      0       0       0      0%
5/06      00:22:48       2      0      0      0       0       0    100%
```

The following is sample output from the **show spe modem csr summary** command on the Cisco AS5800 with universal port card:

```
Router# show spe modem csr summary

   Avg Hold         Inc  calls                Out  calls      Failed    No Succ
   Time         Succ    Fail   Avail     Succ    Fail   Avail Dial    Answer  Pct
   002631     4827     285      93        0       0      93      5       0   94%
```

Related Commands

Command	Description
show spe	Displays history statistics of all SPEs, a specified SPE, or the specified range of SPEs.
show spe modem summary	Displays summary of modem statistics for the specified SPE or range of SPEs.

show spe modem disconnect-reason

To display all modem disconnect reasons for the specified Service Processing Element (SPE), use the **show spe modem disconnect-reason** command in EXEC mode.

Cisco AS5400 with NextPort DFC

show spe modem disconnect-reason {**summary** | *slot* | *slot/spe*}

Cisco AS5800 with Universal Port Card

show spe modem disconnect-reason {**summary** | *shelf/slot* | *shelf/slot/spe*}

Syntax Description

summary	Displays the disconnect reasons for all SPEs.
slot	All ports on the specified slot. For the AS5400, slot values range from 0 to 7.
slot/spe	All ports on the specified slot and SPE. For the AS5400, slot values range from 0 to 7 and SPE values range from 0 to 17.
shelf/slot	All ports on the specified shelf and slot. For the AS5800, shelf values range from 0 to 1 and UPC slot values range from 2 to 11.
shelf/slot/spe	All ports on the specified SPE. For the AS5800, shelf values range from 0 to 1, slot values range from 2 to 11, and SPE values range from 0 to 53.

Command Modes

EXEC

Command History

Release	Modification
12.1(1)XD	This command was introduced on the Cisco AS5400.
12.1(3)T	This command was implemented on the Cisco AS5800.

Usage Guidelines

Disconnect reasons are reasons why active calls are disconnected. The disconnect reasons are displayed with Class boundaries.

Examples

The following is sample output from the **show spe modem disconnect-reason** command on the Cisco AS5400 with NextPort DFC:

```
Router# show spe modem disconnect-reason 5/6

#SPE 5/06   :
===CLASS OTHER====  =====CLASS DSP====  ===CLASS EC LCL===  ==CLASS EC FRMR===
Software Rst     0  No Carrier       0  No LR            0  Frmr Bad Cmd     0
EC Termntd       0  No ABT dtctd     0  LR Param1        0  Frmr Data        0
Bad MNP5 Rx      0  Trainup flr      0  LR Incmpt        0  Frmr Length      0
Bad V42B         0  Retrain Lt       0  Retrns Lt        0  Frmr Bad NR      0
Bad COP stat     0  ABT end flr      0  Inactivity       0
ATH              0                     Protocol Err     0  ===CLASS EC LD====
Aborted          0  ====CLASS HOST====  Fallbck Term     0  LD No LR         0
Connect Tout     0  Hst NonSpec      0  No XID           0  LD LR Param1     0
```

```
Reset DSP          0  Hst Busy          0  XID Incmpt        0  LD LR Incmpt      0
                      Hst No answr      0  Disc              0  LD Retrns Lt      0
===CLASS EC Cmd===    Hst DTR           1  DM                0  LD Inactivty      0
Bad Cmd            0  Hst ATH           0  Bad NR            0  LD Protocol       0
                      Hst NoDialTn      0  SABME Online      0  LD User           0
=====N O N E======    Hst No Carr       0  XID Online        0
None               0  Hst Ack           0  LR Online         0  TOTAL             1
```

The following is sample output from the **show spe modem disconnect-reason summary** command on the Cisco AS5800 with universal port card:

```
Router# show spe modem disconnect-reason summary

===CLASS OTHER====    =====CLASS DSP====    ===CLASS EC LCL===    ==CLASS EC FRMR===
Software Rst       0  No Carrier       21  No LR             0  Frmr Bad Cmd      0
EC Termntd         0  No ABT dtctd      0  LR Param1         0  Frmr Data         0
Bad MNP5 Rx        0  Trainup flr      26  LR Incmpt         0  Frmr Length       0
Bad V42B          12  Retrain Lt        0  Retrns Lt        37  Frmr Bad NR       0
Bad COP stat       0  ABT end flr       0  Inactivity        0
ATH                0                       Protocol Err      5  ===CLASS EC LD====
Aborted            0  ====CLASS HOST====   Fallbck Term     22  LD No LR          0
Connect Tout      11  Hst NonSpec     799  No XID            5  LD LR Param1      0
Reset DSP          0  Hst Busy          0  XID Incmpt        0  LD LR Incmpt      0
                       Hst No answr      0  Disc           2718  LD Retrns Lt      0
===CLASS EC Cmd===    Hst DTR         870  DM                0  LD Inactivty      0
Bad Cmd            0  Hst ATH           0  Bad NR            0  LD Protocol       0
                       Hst NoDialTn      0  SABME Online      0  LD User           0
=====N O N E======    Hst No Carr       0  XID Online        0
None              29  Hst Ack           0  LR Online         0  TOTAL          4555
```

Related Commands

Command	Description
show spe	Displays history statistics of all SPEs, a specified SPE, or the specified range of SPEs.
show spe modem summary	Displays summary of modem statistics for the specified SPE or range of SPEs.

show spe modem high speed

To display the total number of connections within each high-speed modulation or codec for a specific range of Service Processing Elements (SPEs), use the **show spe modem high speed** command in EXEC mode.

Cisco AS5400 with NextPort DFC

show spe modem high speed {**summary** | *slot* | *slot/spe*}

Cisco AS5800 with Universal Port Card

show spe modem high speed {**summary** | *shelf/slot* | *shelf/slot/spe*}

Syntax Description

summary	Displays a brief list of all modulation connections negotiated.
slot	All ports on the specified slot. For the AS5400, slot values range from 0 to 7.
slot/spe	All ports on the specified slot and SPE. For the AS5400, slot values range from 0 to 7 and SPE values range from 0 to 17.
shelf/slot	All ports on the specified shelf and slot. For the AS5800, shelf values range from 0 to 1 and UPC slot values range from 2 to 11.
shelf/slot/spe	All ports on the specified SPE. For the AS5800, shelf values range from 0 to 1, slot values range from 2 to 11, and SPE values range from 0 to 53.

Command Modes

EXEC

Command History

Release	Modification
12.1(1)XD	This command was introduced on the Cisco AS5400.
12.1(3)T	This command was implemented on the Cisco AS5800.

Examples

The following is sample output from the **show spe modem high speed** command on the Cisco AS5400 with NextPort DFC:

```
Router# show spe modem high speed 1/0

#SPE 1/0      :
 Modln       V.FC            V.34          K56Flex           V.90       Modln
 Speed    Tx     Rx       Tx     Rx       Tx     Rx       Tx     Rx    Speed
 56000  ------ ------   ------ ------   000000 ------   000000 ------  56000
 54667  ------ ------   ------ ------        -      -        0      -  54667
 54000  ------ ------   ------ ------        0      -        -      -  54000
 53333  ------ ------   ------ ------        -      -        0      -  53333
 52000  ------ ------   ------ ------        0      -        0      -  52000
 50667  ------ ------   ------ ------        -      -        0      -  50667
 50000  ------ ------   ------ ------        0      -        -      -  50000
 49333  ------ ------   ------ ------        -      -        0      -  49333
 48000  ------ ------   ------ ------        0      -        0      -  48000
 46667  ------ ------   ------ ------        -      -        0      -  46667
 46000  ------ ------   ------ ------        0      -        -      -  46000
```

```
 45333  ------ ------   ------ ------        -      -        0      -  45333
 44000  ------ ------   ------ ------        0      -        0      -  44000
 42667  ------ ------   ------ ------        -      -        0      -  42667
 42000  ------ ------   ------ ------        0      -        -      -  42000
 41333  ------ ------   ------ ------        -      -        0      -  41333
 40000  ------ ------   ------ ------        0      -        0      -  40000
 38667  ------ ------   ------ ------        -      -        0      -  48667
 38000  ------ ------   ------ ------        0      -        -      -  38000
 37333  ------ ------   ------ ------        -      -        0      -  37333
 36000  ------ ------   ------ ------        0      -        0      -  36000
 34667  ------ ------   ------ ------        -      -        0      -  34667
 34000  ------ ------   ------ ------        0      -        -      -  34000
 33600  ------ ------        0      0        -      -        -      0  33600
 33333  ------ ------        -      -        -      -        0      -  33333
 32000  ------ ------        -      -        0      -        0      -  32000
 31200  ------ ------        0      0        -      0        -      0  31200
 30667  ------ ------        -      -        -      -        0      -  30667
 29333  ------ ------        -      -        -      -        0      -  29333
 28800       0      0        0      0        -      0        -      0  28800
 28000       -      -        -      -        -      -        0      -  28000
 26400       0      0        0      0        -      0        -      0  26400
 24000       0      0        0      0        -      0        -      0  24000
 21600       0      0        0      0        -      0        -      0  21600
 19200       0      0        0      0        -      0        -      0  19200
 16800       0      0        0      0        -      0        -      0  16800
 14400       0      0        0      0        -      0        -      0  14400
 12000       -      -        0      0        -      0        -      0  12000
  9600       -      -        0      0        -      0        -      0   9600
  7200       -      -        0      0        -      0        -      0   7200
  4800       -      -        0      0        -      0        -      0   4800
  2400       -      -        0      0        -      -        -      -   2400
 TOTAL     0000000          0000000          0000000          0000000     TOTAL
#SPE 1/1      :
 Modln       V.FC             V.34          K56Flex           V.90       Modln
 Speed    Tx     Rx        Tx     Rx       Tx     Rx        Tx     Rx    Speed
 56000  ------ ------   ------ ------   000000 ------   000000 ------  56000
 54667  ------ ------   ------ ------        -      -        0      -  54667
 54000  ------ ------   ------ ------        0      -        -      -  54000
 53333  ------ ------   ------ ------        -      -        0      -  53333
 52000  ------ ------   ------ ------        0      -        0      -  52000
 50667  ------ ------   ------ ------        -      -        0      -  50667
 50000  ------ ------   ------ ------        0      -        -      -  50000
 49333  ------ ------   ------ ------        -      -        0      -  49333
 48000  ------ ------   ------ ------        0      -        0      -  48000
 46667  ------ ------   ------ ------        -      -        0      -  46667
 46000  ------ ------   ------ ------        0      -        -      -  46000
 45333  ------ ------   ------ ------        -      -        0      -  45333
 44000  ------ ------   ------ ------        0      -        0      -  44000
 42667  ------ ------   ------ ------        -      -        0      -  42667
 42000  ------ ------   ------ ------        0      -        -      -  42000
 41333  ------ ------   ------ ------        -      -        0      -  41333
 40000  ------ ------   ------ ------        0      -        0      -  40000
 38667  ------ ------   ------ ------        -      -        0      -  48667
 38000  ------ ------   ------ ------        0      -        -      -  38000
 37333  ------ ------   ------ ------        -      -        0      -  37333
 36000  ------ ------   ------ ------        0      -        0      -  36000
 34667  ------ ------   ------ ------        -      -        0      -  34667
 34000  ------ ------   ------ ------        0      -        -      -  34000
 33600  ------ ------        0      0        -      -        -      0  33600
 33333  ------ ------        -      -        -      -        0      -  33333
 32000  ------ ------        -      -        0      -        0      -  32000
 31200  ------ ------        0      0        -      0        -      0  31200
 30667  ------ ------        -      -        -      -        0      -  30667
 29333  ------ ------        -      -        -      -        0      -  29333
```

```
 28800       0      0        0      0        -      0        -      0  28800
 28000       -      -        -      -        -      -        0      -  28000
 26400       0      0        0      0        -      0        -      0  26400
 24000       0      0        0      0        -      0        -      0  24000
 21600       0      0        0      0        -      0        -      0  21600
 19200       0      0        0      0        -      0        -      0  19200
 16800       0      0        0      0        -      0        -      0  16800
 14400       0      0        0      0        -      0        -      0  14400
 12000       -      -        0      0        -      0        -      0  12000
  9600       -      -        0      0        -      0        -      0   9600
  7200       -      -        0      0        -      0        -      0   7200
  4800       -      -        0      0        -      0        -      0   4800
  2400       -      -        0      0        -      -        -      -   2400
 TOTAL     0000000         0000000         0000000         0000000     TOTAL
```

The following is sample output from the **show spe modem high speed** command on the Cisco AS5800 with universal port card:

```
Router# show spe modem high speed 1/8/1

    --  Indicates an invalid speed for a standard
#SPE 1/08/01   :
 Modln       V.FC          V.34           K56Flex          V.90       Modln
 Speed    Tx     Rx      Tx     Rx      Tx     Rx       Tx     Rx    Speed
 60000  ------ ------   ------ ------   000000 ------   ------ ------  60000
 58000  ------ ------   ------ ------        0 ------   ------ ------  58000
 56000  ------ ------   ------ ------        0      -        0      -  56000
 54667  ------ ------   ------ ------        -      -        0      -  54667
 54000  ------ ------   ------ ------        0      -        -      -  54000
 53333  ------ ------   ------ ------        -      -        0      -  53333
 52000  ------ ------   ------ ------        0      -        0      -  52000
 50667  ------ ------   ------ ------        -      -        0      -  50667
 50000  ------ ------   ------ ------        0      -        -      -  50000
 49333  ------ ------   ------ ------        -      -        0      -  49333
 48000  ------ ------   ------ ------        0      -        0      -  48000
 46667  ------ ------   ------ ------        -      -        0      -  46667
 46000  ------ ------   ------ ------        0      -        -      -  46000
 45333  ------ ------   ------ ------        -      -        0      -  45333
 44000  ------ ------   ------ ------        0      -        0      -  44000
 42667  ------ ------   ------ ------        -      -        0      -  42667
 42000  ------ ------   ------ ------        0      -        -      -  42000
 41333  ------ ------   ------ ------        -      -        0      -  41333
 40000  ------ ------   ------ ------        0      -        0      -  40000
 38667  ------ ------   ------ ------        -      -        0      -  38667
 38400  ------ ------   ------ ------        -      -        -      -  38400
 38000  ------ ------   ------ ------        0      -        -      -  38000
 37333  ------ ------   ------ ------        -      -        0      -  37333
 36000  ------ ------   ------ ------        0      -        0      -  36000
 34666  ------ ------   ------ ------        -      -        0      -  34666
 34000  ------ ------   ------ ------        0      -        -      -  34000
 33600  ------ ------        0      1        -      -        -      0  33600
 33333  ------ ------        -      -        -      -        0      -  33333
 32000  ------ ------        -      -        0      -        0      -  32000
 31200  ------ ------        6      1        -      0        -      0  31200
 30667  ------ ------        -      -        -      -        0      -  30667
 29333  ------ ------        -      -        -      -        0      -  29333
 28800       0      0        0      4        -      0        -      0  28800
 28000       -      -        -      -        -      -        0      -  28000
 26400       0      0        0      0        -      0        -      0  26400
 24000       0      0        0      0        -      0        -      0  24000
 21600       0      0        0      0        -      0        -      0  21600
 19200       0      0        0      0        -      0        -      0  19200
 16800       0      0        0      0        -      0        -      0  16800
```

```
14400       0       0       0       0       -       0       -       0  14400
12000       -       -       0       0       -       0       -       0  12000
 9600       -       -       0       0       -       0       -       0   9600
 7200       -       -       0       0       -       0       -       0   7200
 4800       -       -       0       0       -       0       -       0   4800
 2400       -       -       0       0       -       -       -       -   2400
TOTAL     0000000         0000012         0000000         0000000
```

Related Commands

Command	Description
show spe modem low speed	Displays the connect speeds within each low modulation or codec for the specified SPEs.

show spe modem high standard

To display the total number of connections within each high modulation or codec for a specific range of Service Processing Element (SPE), use the **show spe modem high standard** command in EXEC mode.

Cisco AS5400 with NextPort DFC

show spe modem high standard {**summary** | *slot* | *slot/spe*}

Cisco AS5800 with Universal Port Card

show spe modem high standard {**summary** | *shelf/slot* | *shelf/slot/spe*}

Syntax Description

summary	Displays a brief list of all modulation connections negotiated.
slot	All ports on the specified slot. For the AS5400, slot values range from 0 to 7.
slot/spe	All ports on the specified slot and SPE. For the AS5400, slot values range from 0 to 7 and SPE values range from 0 to 17.
shelf/slot	All ports on the specified shelf and slot. For the AS5800, shelf values range from 0 to 1 and UPC slot values range from 2 to 11.
shelf/slot/spe	All ports on the specified SPE. For the AS5800, shelf values range from 0 to 1, slot values range from 2 to 11, and SPE values range from 0 to 53.

Command Modes

EXEC

Command History

Release	Modification
12.1(1)XD	This command was introduced on the Cisco AS5400.
12.1(3)T	This command was implemented on the Cisco AS5800.

Examples

The following is sample output from the **show spe modem high standard** command on the Cisco AS5400 with NextPort DFC. This example displays standard low-speed connections for SPEs in slot 5:

```
Router# show spe modem high standard 5

SPE/Mod->     V.FC     V.34  K56Flex     V.90
5/00             0        1        2        1
5/01             0        0        0        0
5/02             0        0        0        0
5/03             0        0        0        0
5/04             0        0        0        0
5/05             0        0        0        0
5/06             0        0        0        2
5/07             0        0        0        0
5/08             0        0        0        0
5/09             0        0        0        0
5/10             0        0        0        0
5/11             0        0        0        0
```

```
5/12              0        0        0        0
5/13              0        0        0        0
5/14              0        0        0        0
5/15              0        0        0        0
5/16              0        0        0        0
5/17              0        0        0        0
TOTAL      00000000 00000001 00000002 00000003
```

The following is sample output from the **show spe modem high standard** command on the Cisco AS5800 with universal port card. This example displays standard low-speed connections for SPEs in slot 8:

```
Router# show spe modem high standard 1/8/1

SPE/Mod->     V.FC     V.34  K56Flex     V.90
1/08/01          0        6        0        0
TOTAL      00000000 00000006 00000000 00000000
```

Related Commands

Command	Description
show spe modem low standard	Displays the connect speeds within each low-speed modulation or codec for the SPE.

show spe modem low speed

To display the connect speeds within each low-speed modulation or codec for the specified Service Processing Elements (SPEs), use the **show spe modem low speed** command in EXEC mode.

Cisco AS5400 with NextPort DFC

show spe modem low speed {**summary** | *slot* | *slot*/*spe*}

Cisco AS5800 with Universal Port Card

show spe modem low speed {**summary** | *shelf*/*slot* | *shelf*/*slot*/*spe*}

Syntax Description

summary	Displays a brief list of all modulation connections negotiated.
slot	All ports on the specified slot. For the AS5400, slot values range from 0 to 7.
slot/*spe*	Ports on the specified slot and SPE. For the AS5400, slot values range from 0 to 7; SPE values range from 0 to 17.
shelf/*slot*	Ports on the specified shelf and slot. For the AS5800, shelf values range from 0 to 1 and UPC slot values range from 2 to 11.
shelf/*slot*/*spe*	Ports on the specified SPE. For the AS5800, shelf values range from 0 to 1, slot values range from 2 to 11, and SPE values range from 0 to 53.

Command Modes

EXEC

Command History

Release	Modification
12.1(1)XD	This command was introduced on the Cisco AS5400.
12.1(3)T	This command was implemented on the Cisco AS5800.

Examples

The following is sample output from the **show spe modem low speed** command on the Cisco AS5400 with NextPort DFC. This example displays standard low-speed connections:

```
Router# show spe modem low speed 1/0

#SPE 1/0    :                                <--     MODEM   FAX       -->
 Speed   B103   V.21   B212   V.22  V.22b   V.32  V.32b    V.27t   V.29   V.17
 14400 ------ ------ ------ ------ ------ ------     30   ------ ------      0
 12000 ------ ------ ------ ------ ------ ------      0   ------ ------      0
  9600 ------ ------ ------ ------ ------      0      0   ------      0      0
  7200 ------ ------ ------ ------ ------      -      0   ------      0      0
  4800 ------ ------ ------ ------ ------      0      0        0      0 ------
  2400 ------ ------ ------ ------      0 ------ ------        0 ------ ------
  1200 ------ ------      0      0      6 ------ ------   ------ ------ ------
   600 ------ ------ ------ ------ ------ ------ ------   ------ ------ ------
   300      0      0 ------ ------ ------ ------ ------   ------ ------ ------
 TOTAL 000000 000000 000000 000000 000006 000000 000030   000000 000000 000000
```

```
#SPE 1/1    :                                <--     MODEM   FAX       -->
 Speed   B103   V.21   B212   V.22  V.22b   V.32  V.32b    V.27t   V.29   V.17
 14400 ------ ------ ------ ------ ------ ------     30   ------ ------      0
 12000 ------ ------ ------ ------ ------ ------      0   ------ ------      0
  9600 ------ ------ ------ ------ ------      0      0   ------      0      0
  7200 ------ ------ ------ ------ ------      -      0   ------      0      0
  4800 ------ ------ ------ ------ ------      0      0        0      0 ------
  2400 ------ ------ ------ ------      0 ------ ------        0 ------ ------
  1200 ------ ------      0      0      6 ------ ------   ------ ------ ------
   600 ------ ------ ------ ------ ------ ------ ------   ------ ------ ------
   300      0      0 ------ ------ ------ ------ ------   ------ ------ ------
 TOTAL 000000 000000 000000 000000 000006 000000 000030   000000 000000 000000
```

The following is sample output from the **show spe modem low speed** command on the Cisco AS5800 with universal port card. This example displays standard low-speed connections for SPEs in slot 8:

```
Router# show spe modem low speed 1/8/0 1/8/6

    --  Indicates an invalid speed for a standard
#SPE 1/08/00   :                          <--       MODEM   FAX       -->
 Speed   B103  V.21  B212  V.22 V.22b  V.23  V.32 V.32b   V.27t  V.29  V.17
 14400  ----- ----- ----- ----- ----- ----- -----     0   ----- -----     0
 12000  ----- ----- ----- ----- ----- ----- -----     0   ----- -----     0
  9600  ----- ----- ----- ----- ----- -----     0     0   -----     0     0
  7200  ----- ----- ----- ----- ----- -----     -     0   -----     0     0
  4800  ----- ----- ----- ----- ----- -----     0     0       0     0 -----
  2400  ----- ----- ----- -----     0 ----- ----- -----       0 ----- -----
  1200  ----- -----     0     0     0     0 ----- -----   ----- ----- -----
   300      0     0 ----- ----- ----- ----- ----- -----   ----- ----- -----
 TOTAL  00000 00000 00000 00000 00000 00000 00000 00000   00000 00000 00000
```

Related Commands

Command	Description
show spe modem high standard	Displays the total number of connections within each modulization or codec for a specific range of SPEs.

show spe modem low standard

To display the total number of connections within each low modulation or codec for the specified Service Processing Elements (SPEs), use the **show spe modem low standard** command in EXEC mode.

Cisco AS5400 with NextPort DFC

show spe modem low standard {**summary** | *slot* | *slot/spe*}

Cisco AS5800 with Universal Port Card

show spe modem low standard {**summary** | *shelf/slot* | *shelf/slot/spe*}

Syntax Description

summary	Displays a brief list of all modulation connections negotiated.
slot	All ports on the specified slot. For the AS5400, slot values range from 0 to 7.
slot/spe	All ports on the specified slot and SPE. For the AS5400, slot values range from 0 to 7 and SPE values range from 0 to 17.
shelf/slot	All ports on the specified shelf and slot. For the AS5800, shelf values range from 0 to 1 and UPC slot values range from 2 to 11.
shelf/slot/spe	All ports on the specified SPE. For the AS5800, shelf values range from 0 to 1, slot values range from 2 to 11, and SPE values range from 0 to 53.

Command Modes

EXEC

Command History

Release	Modification
12.1(1)XD	This command was introduced on the Cisco AS5400.
12.1(3)T	This command was implemented on the Cisco AS5800.

Examples

The following example displays standard low-speed connections for SPEs in slot 5 on the Cisco AS5400.

```
Router# show spe modem low standard 5
                                                <--        MODEM   FAX        -->
SPE/Mod->  B103  V.21  B212  V.22 V.22b  V.23  V.32 V.32b   V.27t  V.29  V.17
5/00          0     0     0     0     0     0     0     0       0     0     0
5/01          0     0     0     0     0     0     0     0       0     0     0
5/02          0     0     0     0     0     0     0     0       0     0     0
5/03          0     0     0     0     0     0     0     0       0     0     0
5/04          0     0     0     0     0     0     0     0       0     0     0
5/05          0     0     0     0     0     0     0     0       0     0     0
5/06          0     0     0     0     0     0     0     0       0     0     0
5/07          0     0     0     0     0     0     0     0       0     0     0
5/08          0     0     0     0     0     0     0     0       0     0     0
5/09          0     0     0     0     0     0     0     0       0     0     0
5/10          0     0     0     0     0     0     0     0       0     0     0
5/11          0     0     0     0     0     0     0     0       0     0     0
5/12          0     0     0     0     0     0     0     0       0     0     0
5/13          0     0     0     0     0     0     0     0       0     0     0
```

```
5/14          0     0     0     0     0     0     0     0       0     0     0
5/15          0     0     0     0     0     0     0     0       0     0     0
5/16          0     0     0     0     0     0     0     0       0     0     0
5/17          0     0     0     0     0     0     0     0       0     0     0
TOTAL     00000 00000 00000 00000 00000 00000 00000 00000   00000 00000 00000
```

The following example displays standard low-speed connections for SPEs in slot 8 on the Cisco AS5800.

```
Router# show spe modem low standard 1/8

                                                 <--        MODEM    FAX       -->
SPE/Mod->  B103  V.21  B212  V.22 V.22b  V.23  V.32 V.32b   V.27t  V.29  V.17
1/08/00       0     0     0     0     0     0     0     0       0     0     0
1/08/01       0     0     0     0     0     0     0     0       0     0     0
1/08/02       0     0     0     0     0     0     0     0       0     0     0
1/08/03       0     0     0     0     0     0     0     0       0     0     0
1/08/04       0     0     0     0     0     0     0     0       0     0     0
1/08/05       0     0     0     0     0     0     0     0       0     0     0
1/08/06       0     0     0     0     0     0     0     0       0     0     0
1/08/07       0     0     0     0     0     0     0     0       0     0     0
1/08/08       0     0     0     0     0     0     0     0       0     0     0
1/08/09       0     0     0     0     0     0     0     0       0     0     0
1/08/10       0     0     0     0     0     0     0     0       0     0     0
1/08/11       0     0     0     0     0     0     0     0       0     0     0
1/08/12       0     0     0     0     0     0     0     0       0     0     0
1/08/13       0     0     0     0     0     0     0     0       0     0     0
1/08/14       0     0     0     0     0     0     0     0       0     0     0
1/08/15       0     0     0     0     0     0     0     0       0     0     0
1/08/16       0     0     0     0     0     0     0     0       0     0     0
1/08/17       0     0     0     0     0     0     0     0       0     0     0
1/08/18       0     0     0     0     0     0     0     0       0     0     0
1/08/19       0     0     0     0     0     0     0     0       0     0     0
1/08/20       0     0     0     0     0     0     0     0       0     0     0
                                                 <--        MODEM    FAX       -->
SPE/Mod->  B103  V.21  B212  V.22 V.22b  V.23  V.32 V.32b   V.27t  V.29  V.17
1/08/21       0     0     0     0     0     0     0     0       0     0     0
1/08/22       0     0     0     0     0     0     0     0       0     0     0
1/08/23       0     0     0     0     0     0     0     0       0     0     0
1/08/24       0     0     0     0     0     0     0     0       0     0     0
1/08/25       0     0     0     0     0     0     0     0       0     0     0
1/08/26       0     0     0     0     0     0     0     0       0     0     0
1/08/27       0     0     0     0     0     0     0     0       0     0     0
1/08/28       0     0     0     0     0     0     0     0       0     0     0
1/08/29       0     0     0     0     0     0     0     0       0     0     0
1/08/30       0     0     0     0     0     0     0     0       0     0     0
1/08/31       0     0     0     0     0     0     0     0       0     0     0
1/08/32       0     0     0     0     0     0     0     0       0     0     0
1/08/33       0     0     0     0     0     0     0     0       0     0     0
1/08/34       0     0     0     0     0     0     0     0       0     0     0
1/08/35       0     0     0     0     0     0     0     0       0     0     0
1/08/36       0     0     0     0     0     0     0     0       0     0     0
1/08/37       0     0     0     0     0     0     0     0       0     0     0
1/08/38       0     0     0     0     0     0     0     0       0     0     0
1/08/39       0     0     0     0     0     0     0     0       0     0     0
1/08/40       0     0     0     0     0     0     0     0       0     0     0
1/08/41       0     0     0     0     0     0     0     0       0     0     0
1/08/42       0     0     0     0     0     0     0     0       0     0     0
                                                 <--        MODEM    FAX       -->
SPE/Mod->  B103  V.21  B212  V.22 V.22b  V.23  V.32 V.32b   V.27t  V.29  V.17
1/08/43       0     0     0     0     0     0     0     0       0     0     0
1/08/44       0     0     0     0     0     0     0     0       0     0     0
1/08/45       0     0     0     0     0     0     0     0       0     0     0
1/08/46       0     0     0     0     0     0     0     0       0     0     0
1/08/47       0     0     0     0     0     0     0     0       0     0     0
1/08/48       0     0     0     0     0     0     0     0       0     0     0
```

```
1/08/49         0      0      0      0      0      0      0      0         0      0      0
1/08/50         0      0      0      0      0      0      0      0         0      0      0
1/08/51         0      0      0      0      0      0      0      0         0      0      0
1/08/52         0      0      0      0      0      0      0      0         0      0      0
1/08/53         0      0      0      0      0      0      0      0         0      0      0
TOTAL       00000  00000  00000  00000  00000  00000  00000  00000     00000  00000  00000
```

Table 111 describes the significant fields shown in the displays.

Table 111 show spe modem low standard Field Descriptions

Field	Description
SPE/Mod for slot	Standard is displayed for each slot.

Related Commands

Command	Description
show spe modem high standard	Displays the total number of connections within each high modulation or codec for a specific range of SPE.

show spe modem summary

To display summary of modem statistics for the specified Service Processing Element (SPE) or range of SPEs, use the **show spe modem summary** command in EXEC mode.

Cisco AS5400 with NextPort DFC

show spe modem summary [*slot* | *slot/spe*]

Cisco AS5800 with Universal Port Card

show spe modem summary [*shelf/slot* | *shelf/slot/spe*]

Syntax Description

slot	(Optional) All ports on the specified slot. For the AS5400, slot values range from 0 to 7.
slot/spe	(Optional) All ports on the specified slot and SPE. For the AS5400, slot values range from 0 to 7 and SPE values range from 0 to 17.
shelf/slot	(Optional) All ports on the specified shelf and slot. For the AS5800, shelf values range from 0 to 1 and UPC slot values range from 2 to 11.
shelf/slot/spe	(Optional) All ports on the specified SPE. For the AS5800, shelf values range from 0 to 1, slot values range from 2 to 11, and SPE values range from 0 to 53.

Command Modes

EXEC

Command History

Release	Modification
12.1(1)XD	This command was introduced on the Cisco AS5400.
12.1(3)T	This command was implemented on the Cisco AS5800.

Examples

The following is sample output from the **show spe modem summary** command on the Cisco AS5400.

```
Router# show spe modem summary

Async1/00 - 5/107, TTY216 - 755
     786 incoming completes          4 incoming failures
       0 outgoing completes          0 outgoing failures
       0 failed dial attempts        0 ring no answers          0 autotests
       0 no carriers                 0 dial timeouts            0 autotest fails
       0 no dial tones               0 link failures            0 fail count
       0 watchdog timeouts           0 protocol errors          0 recovers

Transmit Speed Counters       :
 Speed    Calls  Speed    Calls  Speed    Calls  Speed    Calls  Speed    Calls
 60000        0  48000        0  38400        0  30666        0  12000        0
 58000        0  46666        0  38000        0  29333        0   9600        0
 56000        0  46000        0  37333        0  28800       10   7200        0
 54666        0  45333        0  36000        0  28000        0   4800        0
 54000        0  44000        0  34666        0  26400        0   2400        0
 53333        0  42666        0  34000        0  24000        0   1200        0
 52000        0  42000        0  33600      631  21600        0    300        0
```

```
 50666         0  41333         0  33333         0  19200         0
 50000         0  40000         0  32000         0  16800         0
 49333         0  38666         0  31200       145  14400         0

Receive Speed Counters         :
 Speed    Calls  Speed    Calls  Speed    Calls  Speed    Calls  Speed    Calls
 38400        0  26400        0  16800        0   7200        0    300        0
 33600      786  24000        0  14400        0   4800        0
 31200        0  21600        0  12000        0   2400        0
 28800        0  19200        0   9600        0   1200        0
```

The following is sample output from the **show spe modem summary** command on the Cisco AS5800.

```
Router# show spe modem summary

Async1/2/00 - 1/3/323, TTY972 - 1619
     4827 incoming completes        284 incoming failures
        0 outgoing completes          0 outgoing failures
        0 failed dial attempts        0 ring no answers          0 autotests
        0 no carriers                11 dial timeouts           0 autotest fails
        0 no dial tones               0 link failures           0 fail count
        0 watchdog timeouts        2787 protocol errors         0 recovers
Transmit Speed Counters
  Speed    Calls  Speed    Calls  Speed    Calls  Speed    Calls  Speed Calls
  60000        0  48000      432  38400        0  30666        0  12000 143
  58000        0  46666        0  38000        4  29333        0   9600 5
  56000       15  46000       56  37333      111  28800      700   7200 11
  54666        0  45333      299  36000       84  28000        5   4800 2
  54000        0  44000      227  34666        0  26400      267   2400 0
  53333      123  42666        0  34000       39  24000       46   1200 3
  52000      563  42000       68  33600      323  21600       27    300 0
  50666        0  41333       38  33333        9  19200       38
  50000       59  40000       65  32000       20  16800       12
  49333      371  38666        0  31200      654  14400        5

Receive Speed Counters
  Speed    Calls  Speed    Calls  Speed    Calls  Speed    Calls  Speed Calls
  38400        0  26400     2286  16800       11   7200        1    300 2
  33600      113  24000      267  14400      139   4800        1
  31200      216  21600       56  12000        4   2400        3
  28800     1665  19200       47   9600       16   1200        0
```

Related Commands

Command	Description
show spe	Displays history statistics of all SPEs, a specified SPE, or the specified range of SPEs.
show spe digital	Displays history statistics of all digital SPEs, in summary form or for SPEs starting with a specified slot or a specified shelf/slot/range of SPEs
show spe modem disconnect-reason	Displays all modem disconnect reasons for the specified SPE or range of SPEs.

show spe recovery

To display SPE recovery statistics, use the **show spe recovery** command in EXEC mode.

Cisco AS5400 with NextPort DFC

show spe recovery [*slot* | *slot/spe*]

Cisco AS5800 with Universal Port Card

show spe recovery [*shelf/slot* | *shelf/slot/spe*]

Syntax Description

slot	(Optional) All ports on the specified slot. For the AS5400, slot values range from 0 to 7.
slot/spe	(Optional) All ports on the specified slot and SPE. For the AS5400, slot values range from 0 to 7 and SPE values range from 0 to 17.
shelf/slot	(Optional) All ports on the specified shelf and slot. For the AS5800, shelf values range from 0 to 1 and UPC slot values range from 2 to 11.
shelf/slot/spe	(Optional) All ports on the specified SPE. For the AS5800, shelf values range from 0 to 1, slot values range from 2 to 11, and SPE values range from 0 to 53.

Command Modes

EXEC

Command History

Release	Modification
12.1(1)XD	This command was introduced on the Cisco AS5400.
12.1(3)T	This command was implemented on the Cisco AS5800.

Usage Guidelines

Use this command to see a list of recovered SPEs.

Examples

The following is sample output from the **show spe recovery** command on the Cisco AS5400.

```
Router# show spe recovery

SPE#      Session Abort   Session NAK   Call Failure
1/00                  0             0              0
1/01                  0             0              0
1/02                  0             0              0
1/03                  0             0              0
1/04                  0             0              0
1/05                  0             0              0
1/06                  0             0              0
1/07                  0             0              0
1/08                  0             0              0
1/09                  0             0              0
1/10                  0             0              0
```

```
1/11                    0               0               0
1/12                    0               0               0
1/13                    0               0               0
1/14                    0               0               0
1/15                    0               0               0
1/16                    0               0               0
1/17                    0               0               0
```

The following is sample output from the **show spe recovery** command on the Cisco AS5800.

```
Router# show spe recovery 1/8

SPE#       Session Abort   Session NAK   Call Failure
1/08/00                0             0              0
1/08/01                0             0              0
1/08/02                0             0              0
1/08/03                0             0              0
1/08/04                0             0              0
1/08/05                0             0              0
1/08/06                0             0              0
1/08/07                0             0              0
1/08/08                0             0              0
1/08/09                0             0              0
1/08/10                0             0              0
1/08/11                0             0              0
1/08/12                0             0              0
1/08/13                0             0              0
1/08/14                0             0              0
1/08/15                0             0              0
1/08/16                0             0              0
1/08/17                0             0              0
1/08/18                0             0              0
1/08/19                0             0              0
1/08/20                0             0              0
1/08/21                0             0              0
1/08/22                0             0              0
1/08/23                0             0              0
1/08/24                0             0              0
1/08/25                0             0              0
1/08/26                0             0              0
1/08/27                0             0              0
1/08/28                0             0              0
1/08/29                0             0              0
1/08/30                0             0              0
1/08/31                0             0              0
1/08/32                0             0              0
1/08/33                0             0              0
1/08/34                0             0              0
1/08/35                0             0              0
1/08/36                0             0              0
1/08/37                0             0              0
1/08/38                0             0              0
1/08/39                0             0              0
1/08/40                0             0              0
1/08/41                0             0              0
1/08/42                0             0              0
1/08/43                0             0              0
1/08/44                0             0              0
1/08/45                0             0              0
1/08/46                0             0              0
1/08/47                0             0              0
1/08/48                0             0              0
1/08/49                0             0              0
1/08/50                0             0              0
```

```
1/08/51             0             0             0
1/08/52             0             0             0
1/08/53             0             0             0
```

Related Commands

Command	Description
show spe	Displays SPE status.

show spe version

To display the firmware version on a Service Processing Element (SPE), use the **show spe version** command in EXEC mode.

Cisco AS5400 with NextPort DFC

show spe version [*slot* | *slot/spe*]

Cisco AS5800 with Universal Port Card

show spe version [*shelf/slot* | *shelf/slot/spe*]

Syntax Description

slot	(Optional) All ports on the specified slot. For the AS5400, slot values range from 0 to 7.
slot/spe	(Optional) All ports on the specified slot and SPE. For the AS5400, slot values range from 0 to 7 and SPE values range from 0 to 17.
shelf/slot	(Optional) All ports on the specified shelf and slot. For the AS5800, shelf values range from 0 to 1 and UPC slot values range from 2 to 11.
shelf/slot/spe	(Optional) All ports on the specified SPE. For the AS5800, shelf values range from 0 to 1, slot values range from 2 to 11, and SPE values range from 0 to 53.

Command Modes

EXEC

Command History

Release	Modification
12.0(7)T	This command was introduced.
12.1(1)XD	This command was implemented on the Cisco AS5400.
12.1(3)T	This command was implemented on the Cisco AS5800.

Usage Guidelines

The **show spe version** command also displays the version to firmware file mappings.

Usage Guidelines

Use the **show spe version** command to display the firmware version running on a specific SPE. If *shelf/slot/spe* is specified, the firmware version for the identified SPE or range of SPEs is displayed. If *slot* is specified, the firmware version for the identified SPEs in this slot or range of slots is displayed. If no argument is specified, all SPE versions are displayed.

Note The **show spe version** command is similar to the **show modem mapping** MICA modem command.

Examples

The following is sample output from the **show spe version** command on a Cisco AS5400:

```
Router# show spe version

IOS-Bundled Default Firmware-Filename              Version  Firmware-Type
====================================              =======  =============
system:/ucode/np_spe_firmware1                    0.6.5.5  SPE firmware
                                                  0.0.0.0  Portware

On-Flash Firmware-Filename                        Version  Firmware-Type
==========================                        =======  =============
flash:np.spe                                      0.6.4.5  SPE firmware

  SPE-# SPE-Type   SPE-Port-Range     Version    UPG Firmware-Filename
   4/00    CSMV6         0000-0005     0.6.5.5    N/A np.spe
   4/01    CSMV6         0006-0011     0.6.5.5    N/A ios-bundled default
   4/02    CSMV6         0012-0017     0.6.5.5    N/A ios-bundled default
   4/03    CSMV6         0018-0023     0.6.5.5    N/A ios-bundled default
   4/04    CSMV6         0024-0029     0.6.5.5    N/A ios-bundled default
   4/05    CSMV6         0030-0035     0.6.5.5    N/A ios-bundled default
   4/06    CSMV6         0036-0041     0.6.5.5    N/A ios-bundled default
   4/07    CSMV6         0042-0047     0.6.5.5    N/A ios-bundled default
   4/08    CSMV6         0048-0053     0.6.5.5    N/A ios-bundled default
   4/09    CSMV6         0054-0059     0.6.5.5    N/A ios-bundled default
   4/10    CSMV6         0060-0065     0.6.5.5    N/A ios-bundled default
   4/11    CSMV6         0066-0071     0.6.5.5    N/A ios-bundled default
   4/12    CSMV6         0072-0077     0.6.5.5    N/A ios-bundled default
   4/13    CSMV6         0078-0083     0.6.5.5    N/A ios-bundled default
   4/14    CSMV6         0084-0089     0.6.5.5    N/A ios-bundled default
   4/15    CSMV6         0090-0095     0.6.5.5    N/A ios-bundled default
   4/16    CSMV6         0096-0101     0.6.5.5    N/A ios-bundled default
   4/17    CSMV6         0102-0107     0.6.5.5    N/A ios-bundled default
```

The following is sample output from the **show spe version** command on a Cisco AS5800:

```
Router# show spe version 1/8

IOS-Bundled Default Firmware-Filename              Version  Firmware-Type
====================================              =======  =============
system:/ucode/np_spe_firmware1                    0.0.6.81 SPE firmware
system:/ucode/mica_board_firmware                 2.7.2.0  Mica Portware

On-Flash Firmware-Filename                        Version  Firmware-Type
==========================                        =======  =============
slot0:np_6_81.spe                                 0.0.6.81 SPE firmware
slot0:np_6_80.spe                                 0.0.6.80 SPE firmware
slot0:mica-modem-pw.2.7.1.1.bin                   2.7.1.0  Mica Portware
slot0:mica-modem-pw.2.7.2.0.bin                   2.7.2.0  Mica Portware

  SPE-# SPE-Type   SPE-Port-Range     Version    UPG Firmware-Filename
1/08/00    CSMV6         0000-0005    0.0.6.81    N/A ios-bundled default
1/08/01    CSMV6         0006-0011    0.0.6.81    N/A ios-bundled default
1/08/02    CSMV6         0012-0017    0.0.6.81    N/A ios-bundled default
1/08/03    CSMV6         0018-0023    0.0.6.81    N/A ios-bundled default
1/08/04    CSMV6         0024-0029    0.0.6.81    N/A ios-bundled default
1/08/05    CSMV6         0030-0035    0.0.6.81    N/A ios-bundled default
1/08/06    CSMV6         0036-0041    0.0.6.81    N/A ios-bundled default
1/08/07    CSMV6         0042-0047    0.0.6.81    N/A ios-bundled default
1/08/08    CSMV6         0048-0053    0.0.6.81    N/A ios-bundled default
1/08/09    CSMV6         0054-0059    0.0.6.81    N/A ios-bundled default
1/08/10    CSMV6         0060-0065    0.0.6.81    N/A ios-bundled default
1/08/11    CSMV6         0066-0071    0.0.6.81    N/A ios-bundled default
1/08/12    CSMV6         0072-0077    0.0.6.81    N/A ios-bundled default
1/08/13    CSMV6         0078-0083    0.0.6.81    N/A ios-bundled default
```

```
1/08/14    CSMV6        0084-0089    0.0.6.81    N/A ios-bundled default
1/08/15    CSMV6        0090-0095    0.0.6.81    N/A ios-bundled default
1/08/16    CSMV6        0096-0101    0.0.6.81    N/A ios-bundled default
1/08/17    CSMV6        0102-0107    0.0.6.81    N/A ios-bundled default
1/08/18    CSMV6        0108-0113    0.0.6.81    N/A ios-bundled default
1/08/19    CSMV6        0114-0119    0.0.6.81    N/A ios-bundled default
1/08/20    CSMV6        0120-0125    0.0.6.81    N/A ios-bundled default
1/08/21    CSMV6        0126-0131    0.0.6.81    N/A ios-bundled default
1/08/22    CSMV6        0132-0137    0.0.6.81    N/A ios-bundled default
1/08/23    CSMV6        0138-0143    0.0.6.81    N/A ios-bundled default
1/08/24    CSMV6        0144-0149    0.0.6.81    N/A ios-bundled default
1/08/25    CSMV6        0150-0155    0.0.6.81    N/A ios-bundled default
1/08/26    CSMV6        0156-0161    0.0.6.81    N/A ios-bundled default
1/08/27    CSMV6        0162-0167    0.0.6.81    N/A ios-bundled default
1/08/28    CSMV6        0168-0173    0.0.6.81    N/A ios-bundled default
1/08/29    CSMV6        0174-0179    0.0.6.81    N/A ios-bundled default
1/08/30    CSMV6        0180-0185    0.0.6.81    N/A ios-bundled default
1/08/31    CSMV6        0186-0191    0.0.6.81    N/A ios-bundled default
1/08/32    CSMV6        0192-0197    0.0.6.81    N/A ios-bundled default
1/08/33    CSMV6        0198-0203    0.0.6.81    N/A ios-bundled default
1/08/34    CSMV6        0204-0209    0.0.6.81    N/A ios-bundled default
1/08/35    CSMV6        0210-0215    0.0.6.81    N/A ios-bundled default
1/08/36    CSMV6        0216-0221    0.0.6.81    N/A ios-bundled default
1/08/37    CSMV6        0222-0227    0.0.6.81    N/A ios-bundled default
1/08/38    CSMV6        0228-0233    0.0.6.81    N/A ios-bundled default
1/08/39    CSMV6        0234-0239    0.0.6.81    N/A ios-bundled default
1/08/40    CSMV6        0240-0245    0.0.6.81    N/A ios-bundled default
1/08/41    CSMV6        0246-0251    0.0.6.81    N/A ios-bundled default
1/08/42    CSMV6        0252-0257    0.0.6.81    N/A ios-bundled default
1/08/43    CSMV6        0258-0263    0.0.6.81    N/A ios-bundled default
1/08/44    CSMV6        0264-0269    0.0.6.81    N/A ios-bundled default
1/08/45    CSMV6        0270-0275    0.0.6.81    N/A ios-bundled default
1/08/46    CSMV6        0276-0281    0.0.6.81    N/A ios-bundled default
1/08/47    CSMV6        0282-0287    0.0.6.81    N/A ios-bundled default
1/08/48    CSMV6        0288-0293    0.0.6.81    N/A ios-bundled default
1/08/49    CSMV6        0294-0299    0.0.6.81    N/A ios-bundled default
1/08/50    CSMV6        0300-0305    0.0.6.81    N/A ios-bundled default
1/08/51    CSMV6        0306-0311    0.0.6.81    N/A ios-bundled default
1/08/52    CSMV6        0312-0317    0.0.6.81    N/A ios-bundled default
1/08/53    CSMV6        0318-0323    0.0.6.81    N/A ios-bundled default
```

The following examples show various implementations of the **show spe version** command to display information about the available SPE sources and modem resources:

```
Router# show spe version

IOS-Bundled Default Firmware-Filename              Version  Firmware-Type
 ====================================              =======  =============
 system:/ucode/mica_board_firmware                 2.0.2.0  Mica Boardware
 system:/ucode/mica_port_firmware                  2.6.2.0  Mica Portware
 system:/ucode/microcom_firmware                   5.1.20   Microcom F/W and DSP

 On-Flash Firmware-Filename                        Version  Firmware-Type
 ==========================                        =======  =============
 flash:portware.2620.ios                           2.6.2.0  Mica Portware
 flash:mcom-modem-firmware.3.1.30.bin              3.1.30   Microcom Firmware
 flash:mcom-fw-dsp.5.1.9_47.22.bin                 5.1.9    Microcom F/W and DSP
 flash:R0620.ios                                   0.6.2.0  Mica Portware
 flash:pw2710.ios                                  2.7.1.0  Mica Portware
 flash:mica-modem-pw_2_7_1_0.bin                   2.7.1.0  Mica Portware

 SPE-# SPE-Type   SPE-Range     Version    Upgrade Firmware-Filename
 1/0   MICA-HMM   1/0   - 1/5   2.7.1.0    N/A     flash:mica-modem-pw_2_7_1_0.bin
 1/1   MICA-HMM   1/6   - 1/11  2.7.1.0    N/A     flash:mica-modem-pw_2_7_1_0.bin
```

```
 1/2   MICA-HMM   1/12  - 1/17  2.7.1.0    N/A     flash:mica-modem-pw_2_7_1_0.bin
 1/3   MICA-HMM   1/18  - 1/23  2.7.1.0    N/A     flash:mica-modem-pw_2_7_1_0.bin
 1/5   MICA-HMM   1/30  - 1/35  2.7.1.0    N/A     system:/ucode/mica_port_firmware
 1/6   MICA-HMM   1/36  - 1/41  2.7.1.0    N/A     system:/ucode/mica_port_firmware
 1/7   MICA-HMM   1/42  - 1/47  2.7.1.0    N/A     system:/ucode/mica_port_firmware
 1/9   MICA-HMM   1/54  - 1/59  2.7.1.0    N/A     flash:/pw2710.ios

 2/0   MCOM-V90   2/0           5.1(20)    N/A     system:/ucode/microcom_firmware
 2/1   MCOM-V90   2/1           5.1(20)    N/A     system:/ucode/microcom_firmware
 2/2   MCOM-V90   2/2           5.1(20)    N/A     system:/ucode/microcom_firmware
 2/3   MCOM-V90   2/3           5.1(20)    N/A     system:/ucode/microcom_firmware
 2/4   MCOM-V90   2/4           5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
 2/5   MCOM-V90   2/5           5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
 2/6   MCOM-V90   2/6           5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
 2/7   MCOM-V90   2/7           5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
 2/8   MCOM-V90   2/8           5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
 2/9   MCOM-V90   2/9           5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
 2/10  MCOM-V90   2/10          5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
 2/11  MCOM-V90   2/11          5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
 2/12  MCOM-V34   2/12          2.3(6)     N/A     feature_card_flash
 2/13  MCOM-V34   2/13          2.3(6)     N/A     feature_card_flash
 2/14  MCOM-V34   2/14          2.3(6)     N/A     feature_card_flash
 2/15  MCOM-V34   2/15          2.3(6)     N/A     feature_card_flash
 2/16  MCOM-V34   2/16          2.3(6)     N/A     feature_card_flash
 2/17  MCOM-V34   2/17          2.3(6)     N/A     feature_card_flash
 2/18  MCOM-V34   2/18          2.3(6)     N/A     feature_card_flash
 2/19  MCOM-V34   2/19          2.3(6)     N/A     feature_card_flash
 2/20  MCOM-V34   2/20          2.3(6)     N/A     feature_card_flash
 2/21  MCOM-V34   2/21          2.3(6)     N/A     feature_card_flash
 2/22  MCOM-V34   2/22          2.3(6)     N/A     feature_card_flash
 2/23  MCOM-V34   2/23          2.3(6)     N/A     feature_card_flash
```

```
Router# show spe version 1

 SPE-# SPE-Type   SPE-Range     Version    Upgrade Firmware-Filename
 1/0   MICA-HMM   1/0   - 1/5   2.7.1.0    N/A     flash:mica-modem-pw_2_7_1_0.bin
 1/1   MICA-HMM   1/6   - 1/11  2.7.1.0    N/A     flash:mica-modem-pw_2_7_1_0.bin
 1/2   MICA-HMM   1/12  - 1/17  2.7.1.0    N/A     flash:mica-modem-pw_2_7_1_0.bin
 1/3   MICA-HMM   1/18  - 1/23  2.7.1.0    N/A     flash:mica-modem-pw_2_7_1_0.bin
 1/5   MICA-HMM   1/30  - 1/35  2.7.1.0    N/A     system:/ucode/mica_port_firmware
 1/6   MICA-HMM   1/36  - 1/41  2.7.1.0    N/A     system:/ucode/mica_port_firmware
 1/7   MICA-HMM   1/42  - 1/47  2.7.1.0    N/A     system:/ucode/mica_port_firmware
 1/9   MICA-HMM   1/54  - 1/59  2.7.1.0    N/A     flash:/pw2710.ios
```

```
Router# show spe version 1/2

 SPE-# SPE-Type   SPE-Range     Version    Upgrade Firmware-Filename
 1/2   MICA-HMM   1/12  - 1/17  2.7.1.0    N/A     flash:mica-modem-pw_2_7_1_0.bin
```

The following two examples show implementation of the **show spe version** command to display information about a range of SPEs:

```
Router# show spe version 1/2 2

 SPE-# SPE-Type   SPE-Range     Version    Upgrade Firmware-Filename
 1/2   MICA-HMM   1/12  - 1/17  2.7.1.0    N/A     flash:mica-modem-pw_2_7_1_0.bin
 1/3   MICA-HMM   1/18  - 1/23  2.7.1.0    N/A     flash:mica-modem-pw_2_7_1_0.bin
 1/5   MICA-HMM   1/30  - 1/35  2.7.1.0    N/A     system:/ucode/mica_port_firmware
 1/6   MICA-HMM   1/36  - 1/41  2.7.1.0    N/A     system:/ucode/mica_port_firmware
 1/7   MICA-HMM   1/42  - 1/47  2.7.1.0    N/A     system:/ucode/mica_port_firmware
 1/9   MICA-HMM   1/54  - 1/59  2.7.1.0    N/A     flash:/pw2710.ios
 2/0   MCOM-V90   2/0           5.1(20)    N/A     system:/ucode/microcom_firmware
 2/1   MCOM-V90   2/1           5.1(20)    N/A     system:/ucode/microcom_firmware
```

```
 2/2   MCOM-V90   2/2          5.1(20)    N/A     system:/ucode/microcom_firmware
 2/3   MCOM-V90   2/3          5.1(20)    N/A     system:/ucode/microcom_firmware
 2/4   MCOM-V90   2/4          5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
 2/5   MCOM-V90   2/5          5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
 2/6   MCOM-V90   2/6          5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
 2/7   MCOM-V90   2/7          5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
 2/8   MCOM-V90   2/8          5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
 2/9   MCOM-V90   2/9          5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
 2/10  MCOM-V90   2/10         5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
 2/11  MCOM-V90   2/11         5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
 2/12  MCOM-V34   2/12         2.3(6)     N/A     feature_card_flash
 2/13  MCOM-V34   2/13         2.3(6)     N/A     feature_card_flash
 2/14  MCOM-V34   2/14         2.3(6)     N/A     feature_card_flash
 2/15  MCOM-V34   2/15         2.3(6)     N/A     feature_card_flash
 2/16  MCOM-V34   2/16         2.3(6)     N/A     feature_card_flash
 2/17  MCOM-V34   2/17         2.3(6)     N/A     feature_card_flash
 2/18  MCOM-V34   2/18         2.3(6)     N/A     feature_card_flash
 2/19  MCOM-V34   2/19         2.3(6)     N/A     feature_card_flash
 2/20  MCOM-V34   2/20         2.3(6)     N/A     feature_card_flash
 2/21  MCOM-V34   2/21         2.3(6)     N/A     feature_card_flash
 2/22  MCOM-V34   2/22         2.3(6)     N/A     feature_card_flash
 2/23  MCOM-V34   2/23         2.3(6)     N/A     feature_card_flash
```

```
Router# show spe version 1/2 2/6

 SPE-# SPE-Type   SPE-Range     Version    Upgrade Firmware-Filename
 1/2   MICA-HMM   1/12  - 1/17  2.7.1.0    N/A     flash:mica-modem-pw_2_7_1_0.bin
 1/3   MICA-HMM   1/18  - 1/23  2.7.1.0    N/A     flash:mica-modem-pw_2_7_1_0.bin
 1/5   MICA-HMM   1/30  - 1/35  2.7.1.0    N/A     system:/ucode/mica_port_firmware
 1/6   MICA-HMM   1/36  - 1/41  2.7.1.0    N/A     system:/ucode/mica_port_firmware
 1/7   MICA-HMM   1/42  - 1/47  2.7.1.0    N/A     system:/ucode/mica_port_firmware
 1/9   MICA-HMM   1/54  - 1/59  2.7.1.0    N/A     flash:/pw2710.ios
 2/0   MCOM-V90   2/0          5.1(20)    N/A     system:/ucode/microcom_firmware
 2/1   MCOM-V90   2/1          5.1(20)    N/A     system:/ucode/microcom_firmware
 2/2   MCOM-V90   2/2          5.1(20)    N/A     system:/ucode/microcom_firmware
 2/3   MCOM-V90   2/3          5.1(20)    N/A     system:/ucode/microcom_firmware
 2/4   MCOM-V90   2/4          5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
 2/5   MCOM-V90   2/5          5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
 2/6   MCOM-V90   2/6          5.1(9)     N/A     flash:/mcom-fw-dsp.5.1.9_47.22.bin
```

```
Router# show spe version

IOS-Bundled Default Firmware-Filename             Version  Firmware-Type
===================================              =======  =============
system:/ucode/mica_board_firmware                2.0.2.0  Mica Boardware
system:/ucode/mica_port_firmware                 2.6.2.0  Mica Portware
system:/ucode/microcom_firmware                  5.1.20   Microcom F/W and DSP

On-Flash Firmware-Filename                       Version  Firmware-Type
==========================                       =======  =============
flash:portware.2620.ios                          2.6.2.0  Mica Portware
flash:mcom-modem-firmware.3.1.30.bin             3.1.30   Microcom Firmware
flash:mcom-fw-dsp.5.1.9_47.22.bin                5.1.9    Microcom F/W and DSP
flash:R0620.ios                                  0.6.2.0  Mica Portware
flash:pw2710.ios                                 2.7.1.0  Mica Portware
flash:mica-modem-pw_2_7_1_0.bin                  2.7.1.0  Mica Portware

SPE-# SPE-Type   SPE-Range     Version    Upgrade Firmware-Filename
1/0   MICA-HMM   1/0   - 1/5   2.7.1.0    N/A     flash:mica-modem-pw_2_7_1_0.bin
1/1   MICA-HMM   1/6   - 1/11  2.7.1.0    N/A     flash:mica-modem-pw_2_7_1_0.bin
1/2   MICA-HMM   1/12  - 1/17  2.7.1.0    N/A     flash:mica-modem-pw_2_7_1_0.bin
1/3   MICA-HMM   1/18  - 1/23  2.7.1.0    N/A     flash:mica-modem-pw_2_7_1_0.bin
```

For the Cisco AS5800, the **show spe version** command display will be different. Note that the SPE-Port-Range field indicates the shelf/slot/port of the SPE.

```
Router# show spe version

Firmware-Filename                              Version  Firmware-Type
=================                              =======  =============
IOS-Bundled Default                            2.6.2.0  Mica Portware
slot0:/pw2710.ios                              2.7.1.0  Mica Portware
slot0:/pw3102.ios                              3.1.0.2  Mica Portware
slot0:/pw3101.ios                              3.1.0.1  Mica Portware

SPE-# SPE-Type   SPE-Port-Range    Version    Upgrade Firmware-Filename
3/0   MICA-DMM   1/3/00 - 1/3/11   2.7.1.0    N/A     slot0:/pw2710.ios
3/1   MICA-DMM   1/3/12 - 1/3/23   2.7.1.0    N/A     slot0:/pw2710.ios
3/2   MICA-DMM   1/3/24 - 1/3/35   2.7.1.0    N/A     slot0:/pw2710.ios
3/3   MICA-DMM   1/3/36 - 1/3/47   2.7.1.0    N/A     slot0:/pw2710.ios
3/4   MICA-DMM   1/3/48 - 1/3/59   2.7.1.0    N/A     slot0:/pw2710.ios
3/5   MICA-DMM   1/3/60 - 1/3/71   2.7.1.0    N/A     slot0:/pw2710.ios
3/6   MICA-DMM   1/3/72 - 1/3/83   2.7.1.0    N/A     slot0:/pw2710.ios
3/7   MICA-DMM   1/3/84 - 1/3/95   2.7.1.0    N/A     slot0:/pw2710.ios
3/8   MICA-DMM   1/3/96 - 1/3/107  2.7.1.0    N/A     slot0:/pw2710.ios
```

Table 112 describes the significant fields for the **show spe version** command on the Cisco AS5800 access server.

Table 112 show spe version Field Descriptions

Field	Description
SPE-#	The slot and port number of the SPE.
SPE-Type	The type of the SPE.
SPE-Port-Range	The range of ports within the specific SPE.
Version	The version of firmware loaded on the SPE.
Upgrade	The method used to reboot the SPE—choices are: busyout (default), reboot, or recover.
Firmware-Filename	This is the name of the firmware. You can use the **dir** command at the prompt to see what firmware filenames are available.
Firmware-Type	This describes which type of modem is associated with the firmware version.
IOS-Bundled Default Firmware-Filename	This shows which firmware filenames are bundled with the Cisco IOS (system:/ucode).
On-Flash Firmware-Filename	This shows which firmware filenames are on the Flash (flash:).

Related Commands

Command	Description
firmware location	Upgrades SPE firmware after the new SPE firmware image is retrieved from CCO or elsewhere.
show spe	Displays history statistics of all SPEs, a specified SPE, or the specified range of SPEs.

show syscon sdp

To display information about the Shelf Discovery Protocol (SDP), use the **show syscon sdp** command in privileged EXEC or user EXEC mode.

show syscon sdp

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC
User EXEC

Command History

Release	Modification
11.3AA	This command was introduced.

Examples

The following is sample output from the **show syscon sdp** command:

```
Router# show syscon sdp

Current time 10:46:32 PST Jan 28 1998, system controller 172.23.66.100
Last hello packet received at 10:45:38 PST Jan 28 1998
11773 Total SDP packets
    0 packets with bad MD5 hash
    5884 Hello packets received
    5889 Hello packets sent
    0 Command packets received
    0 Command packets sent
```

Table 113 describes the fields shown in the sample display.

Table 113 show syscon sdp Field Descriptions

Field	Description
Current time	Current time and date.
system controller	IP address of the system controller.
Last hello packet received	Time and date when the last hello packet from the system controller was received by the shelf.
Total SDP packets	Total number of SDP packets sent or received by the shelf.
packets with bad MD5 hash	Number of packets with a bad MD5 hash.
Hello packets received	Number of hello packets received by the shelf from the system controller.
Hello packets sent	Number of hello packets sent from the shelf to the system controller.

Table 113 show syscon sdp Field Descriptions

Field	Description
Command packets received	Number of packets containing commands received by the shelf.
Command packets sent	Number of commands sent by the shelf.

Related Commands

Command	Description
syscon address	Specifies the system controller for a managed shelf.
syscon source-interface	Specifies the interface to use for the source address in SDP packets.

show tech-support modem

To create a modem ISDN channel aggregation (MICA) modem functionality report on a Cisco AS5300 or AS5800 access server, use the **show tech-support modem** command in privileged EXEC mode.

show tech-support modem [**detail**]

Syntax Description

detail	(Optional) Produces an extensive modem functionality report.

Defaults

show tech-support modem

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(11)T	This command was introduced for MICA modems on the Cisco AS5300 and AS5800.

Usage Guidelines

This command is useful when information is required to troubleshoot a problem with MICA modems in the field. Customers are typically asked to send the output for a number of Cisco IOS EXEC commands. The **show tech-support modem** command provides extensive output of many EXEC commands by entering a single command.

The report displayed by the **show tech-support modem** command is the successive output of many commands. The report takes some time to run and, when captured in a buffer, can be over 100 pages in length. Table 114 lists the commands run by the **show tech-support modem** command, in the order run.

Table 114 List of Commands Run by show tech-support modem Command

Commands Run by the show tech-support modem Command:
show version
show running-config
show modem version
show modem
show modem summary
show spe version
show controllers t1 call-counters
show controllers e1 call-counters
show modem connect-speeds
show modem mapping
show line

Table 114 List of Commands Run by show tech-support modem Command (continued)

Commands Run by the show tech-support modem Command:
show caller
show users all
Additional Commands Run by the show tech-support modem detail Command:
show modem configuration
show modem operational-status
show modem mica all
show modem csm
show modem log

To interpret the modem reports, refer to the descriptions for each command listed in Table 114 in the appropriate command reference manual.

Examples

The following example shows how to display a basic list of modem reports:

```
Router# show tech-support modem
```

The following example shows how to display an extensive list of modem reports:

```
Router# show tech-support modem detail
```

Related Commands

Command	Description
execute-on	Executes a command on a line card to monitor and maintain information on the card (for example, a line card on a dial shelf).

show tech-support spe

To create a NextPort service processing element (SPE) modem functionality report on a Cisco AS5350, AS5400, AS5800, or AS5850 access server, use the **show tech-support spe** command in privileged EXEC mode.

show tech-support spe [**detail**]

Syntax Description

detail	(Optional) Produces an extensive modem functionality report.

Defaults

show tech-support spe

Command Modes

Privileged EXEC

Command History

Release	Modification
12.1(13)	The commands **show tech-support modem** (for the Cisco AS5300 and AS5800 access servers) and **show tech-support spe** (for the Cisco AS5350, AS5400, AS5800, and AS5850 access servers) were introduced.
12.2(11)T	The commands were migrated to Cisco IOS Release 12.2(11)T.

Usage Guidelines

This command is useful when information is required to troubleshoot a problem with SPE modems in the field. Customers are typically asked to send the output for a number of Cisco IOS EXEC commands. The **show tech-support spe** command provides extensive output of many EXEC commands by entering a single command.

The report displayed by the **show tech-support spe** command is the successive output of many commands. The report takes some time to run and, when captured in a buffer, can be over 100 pages in length. Table 115 summarizes the commands run by the **show tech-support spe** command.

Table 115 List of Commands Run by show tech-support spe Command

Commands Run by the show tech-support spe Command:
show version
show running-config
show spe version
show spe
show spe modem summary
show spe modem csr summary
show spe modem disconnect-reason summary
show spe recovery
show csm call-rate

Table 115 List of Commands Run by show tech-support spe Command (continued)

Commands Run by the show tech-support spe Command:
show nextport mm
show controllers e1 call-counters
show controllers t1 call-counters
show line
show caller
show users all
Additional Commands Run by the show tech-support spe detail Command:
show csm modem
show spe log
show port modem log

To interpret the modem reports, refer to the descriptions for each command listed in Table 115 in the appropriate command reference manual.

Examples

The following example shows how to display a basic list of modem reports:

```
Router# show tech-support spe
```

The following example shows how to display an extensive list of modem reports:

```
Router# show tech-support spe detail
```

Related Commands

Command	Description
execute-on	Executes a command on a line card to monitor and maintain information on the card (for example, a line card on a dial shelf).

show tgrm

To display information for debugging purposes about defined trunk groups and interfaces that have been assigned to the trunk groups, use the **show tgrm** command in EXEC mode.

show tgrm

Syntax Description

This command has no arguments or keywords.

Command Modes

EXEC

Command History

Release	Modification
12.1(3)T	This command was introduced.

Examples

The following is sample output from the **show tgrm** command:

```
Router# show tgrm

      Trunk   Any in  Vce in   Data in
     Group #  Any out Vce out  Data out

        2       65535   65535   65535
                65535   65535   65535
                0 Retries
                Interface Se1/0/1:15    Data = 0, Voice = 0, Free = 30
                Interface Se1/0/8:15    Data = 2, Voice = 0, Free = 28

                Total calls for trunk group:Data = 2, Voice = 0, Free = 58
                Selected Voice Interface :Se1/0/1:15
                Selected Data Interface  :Se1/0/1:15
```

Table 116 describes the significant fields shown in the display.

Table 116 show tgrm Field Descriptions

Field	Description
Trunk Group #	Number of a defined trunk group.
Any in, Vce In, Data In, Any out, Vce out, Data out	Trunk group settings that specify whether incoming and outgoing voice and data traffic is allowed. The nonconfigured number 65535 indicates that **max-calls** values have not been configured in the global **trunk group** command.
Retries	Defined maximum number of retries.
Interface	Specified interface, number of channels currently used for voice and data, and number of free channels.

Table 116 show tgrm Field Descriptions (continued)

Field	Description
Total calls for trunk group	Number of calls to and from the trunk group, number of channels used for voice and data, and number of free channels.
Selected Voice Interface	Interface or trunk to be used next for a voice call.
Selected Data Interface	Interface or trunk to be used next for a data call.

show vpdn

To display basic information about all active virtual private dialup network (VPDN) tunnels, use the **show vpdn** command in user EXEC mode.

show vpdn

Syntax Description

This command has no arguments or keywords.

Command Modes

User EXEC

Command History

Release	Modification
11.2	This command was introduced.
12.1(1)T	This command was enhanced to display Point-to-Point Protocol over Ethernet (PPPoE) information.
12.1(2)T	This command was enhanced to display PPPoE session information on actual Ethernet interfaces.

Usage Guidelines

Use the **show vpdn** command to display information about all active tunnels using Layer 2 Tunnel Protocol (L2TP), Layer 2 Forwarding (L2F), and Point-to-Point Tunnel Protocol (PPTP).

The output of the **show vpdn session** command also displays PPPoE session information. PPPoE is supported on ATM permanent virtual connections (PVCs) compliant with RFC 1483 only. PPPoE is not supported on Frame Relay and any other LAN interfaces such as FDDI and Token Ring.

Examples

The following is sample output from the **show vpdn** command on a device with active L2F and L2TP tunnels:

```
Router> show vpdn

Active L2F tunnels
NAS Name   Gateway Name    NAS CLID   Gateway CLID   State
nas        gateway           4            2          open

L2F MIDs
Name                   NAS Name    Interface    MID      State
router1@cisco.com      nas          As7          1       open
router2@cisco.com      nas          As8          2       open

%No active PPTP tunnels
```

The following is sample output from the **show vpdn** command on a device with an active PPPoE tunnels:

```
Router> show vpdn

%No active L2TP tunnels
%No active L2F tunnels
```

```
PPPoE Tunnel and Session Information Total tunnels 1 sessions 1
PPPoE Tunnel Information
Session count:1
PPPoE Session Information
SID        RemMAC          LocMAC       Intf    VASt    OIntf    VC
1       0010.7b01.2cd9  0090.ab13.bca8  Vi4     UP      AT6/0   0/104
```

The following is sample output from the **show vpdn** command on a device with an active PPPoE session on an actual Ethernet interface:

```
Router> show vpdn

%No active L2TP tunnels
%No active L2F tunnels

PPPoE Tunnel and Session Information Total tunnels 1 sessions 1
PPPoE Tunnel Information
Session count:1
PPPoE Session Information
SID        RemMAC          LocMAC       Intf    VASt    OIntf
1       0090.bf06.c870 00e0.1459.2521   Vi1      UP     Eth1
```

Table 117 describes the significant fields shown in the displays.

Table 117 show vpdn Field Descriptions

Field	Description
Active L2F tunnels	
NAS Name	Hostname of the network access server (NAS), which is the remote termination point of the tunnel.
Gateway Name	Hostname of the home gateway, which is the local termination point of the tunnel.
NAS CLID	A number uniquely identifying the VPDN tunnel on the NAS.
Gateway CLID	A number uniquely identifying the VPDN tunnel on the gateway.
State	Indicates whether the tunnel is open, opening, closing, or closed.
L2F MIDs	
Name	Username of the person from whom a protocol message was forwarded over the tunnel.
NAS Name	Hostname of the NAS.
Interface	Interface from which the protocol message was sent.
MID	A number uniquely identifying this user in this tunnel.
State	Indicates status for the individual user in the tunnel. The states are: opening, open, closed, closing, and waiting_for_tunnel. The waiting_for_tunnel state means that the user connection is waiting until the main tunnel can be brought up before it moves to the opening state.
PPPoE Tunnel Information	
SID	Session ID for the PPPoE session.
RemMAC	Remote MAC address of the host.
LocMAC	Local MAC address of the router. It is the default MAC address of the router.
Intf	Virtual access interface associated with the PPP session.

Table 117 show vpdn Field Descriptions (continued)

Field	Description
VASt	Line protocol state of the virtual access interface.
OIntf	Outgoing interface.
VC	VC on which the PPPoE session is established.

Related Commands

Command	Description
show vpdn domain	Shows all VPDN domains and DNIS groups configured on the NAS.
show vpdn group	Shows a summary of the relationships among VPDN groups and customer/VPDN profiles, or summarizes the configuration of a VPDN group including DNIS/domain, load sharing information and current session information.
show vpdn history failure	Shows the content of the failure history table.
show vpdn multilink	Shows the multilink sessions authorized for all VPDN groups.
show vpdn session	Displays session information about active Layer 2 sessions for a VPDN.
show vpdn tunnel	Displays information about active Layer 2 tunnels for a VPDN.

show vpdn domain

To view all virtual private dialup network (VPDN) domains and DNIS groups configured on the network access server, use the **show vpdn domain** command in privileged EXEC mode.

show vpdn domain

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.0(4)XI	This command was introduced.

Examples

The following is sample output from the **show vpdn domain** command:

```
Router# show vpdn domain

Tunnel            VPDN Group
------            ----------
dnis:cg2          vgdnis (L2F)
domain:twu-ultra  test (L2F)
```

Table 118 shows the significant fields shown in the display.

Table 118 show vpdn domain Field Descriptions

Field	Description
Tunnel	The assigned name of the tunnel endpoint.
VPDN Group	The assigned name of the VPDN group using the tunnel.

show vpdn group

To see a summary of the relationships among virtual private dialup network (VPDN) groups and customer/VPDN profiles, or to summarize the configuration of a VPDN group including domain/DNIS, load sharing information and current session information, use the **show vpdn group** command in EXEC mode.

show vpdn group [*name*] [**domain** | **endpoint**]

Syntax Description

name	(Optional) VPDN group name summarizes the configuration of the specified group.
domain	(Optional) DNIS/domain information.
endpoint	(Optional) Endpoint session information.

Command Modes

EXEC

Command History

Release	Modification
12.0(4)XI	This command was introduced.

Usage Guidelines

Use the **show vpdn group** command in EXEC mode to see a summary of the relationships among VPDN groups and customer/VPDN profiles, or to summarize the configuration of a VPDN group including domain/DNIS, load sharing information, and current session information. To summarize relationships among VPDN groups and customer/VPDN profiles, use the syntax **show vpdn group** *name*.

Examples

The following is sample output from the **show vpdn group** command summarizing all VPDN group and profile relationships:

```
Router> show vpdn group

VPDN Group  Customer Profile  VPDN Profile
----------  ----------------  ------------
 1           -                -
 2           -                -
 3           -                -
 lisun       cp1              -
 outgoing-2  -                -
 test        -                -
*vg1         cpdnis           -
*vg2         cpdnis           -
 vgdnis     +cp1              vp1
 vgnumber    -                -
 vp1         -                -

* VPDN group not configured
+ VPDN profile under Customer profile
```

Note VPDN group is marked with "*" if it does not exist, but is used under customer/VPDN profile.

Note Customer profiles are marked with "+" if the corresponding VPDN group is not directly configured under a customer profile. Instead, the corresponding VPDN profile is configured under the customer profile.

The following is sample output from the **show vpdn group** command for a VPDN group named vgdnis:

```
Router > show vpdn group vgdnis

Tunnel (L2TP)
------
dnis:cg1
dnis:cg2
dnis:jan
cisco.com

Endpoint        Session Limit Priority Active Sessions Status Reserved Sessions
--------        ------------- -------- --------------- ------ -----------------
172.21.9.67     *             1        0               OK     -
--------------- -------------           ---------------        -----------------
Total           *                      0                      0
```

Note Tunnel section lists all domain/DNIS ("dnis" appears before DNIS).

The session limit endpoint is the sum of the session limits of all endpoints and is marked with "*" if there is no limit (indicated by "*") for any endpoint.

If the endpoint has no session limit, reserved sessions are marked with "-".

The following is sample output from the **show vpdn group** command:

```
Router# show vpdn group

VPDN Group      Customer Profile VPDN Profile
----------      ---------------- ------------
customer1-vpdng customer1        customer1-profile
customer2-vpdng customer2        -

Router# show vpdn group customer1-vpdng

Tunnel (L2TP)
--------
cisco.com
cisco1.com
dnis:customer1-calledg

Endpoint        Session Limit Priority Active Sessions Status Reserved Sessions
--------        ------------- -------- --------------- ------ -----------------
172.21.9.67     *             1        0               OK
172.21.9.68     100           1        0               OK
172.21.9.69     *             5        0               OK
                -------------          ---------------        -----------------
Total           *                      0                      0
```

Table 119 describes the significant fields shown in the displays.

Table 119 show vpdn group Field Descriptions

Field	Description
VPDN Group	The assigned name of the VPDN group using the tunnel.
Customer Profile	The name of the assigned customer profile.
VPDN Profile	The name of the assigned VPDN profile.
Tunnel	The assigned name of the tunnel endpoint.
Endpoint	IP address of HGW/LNS router.
Session Limit	Number of sessions permitted for the designated endpoint.
Priority	Loadsharing HGW/LNSs are always marked with a priority of 1.
Active Sessions	Number of active sessions on the network access server. These are sessions successfully established with endpoints (not reserved sessions).
Status	Only two status types are possible: OK and busy.
Reserved Sessions	Authorized sessions that are waiting to see if they can successfully connect to endpoints. Essentially, these sessions are queued calls. In most cases, reserved sessions become active sessions.

show vpdn history failure

To show the content of the failure history table, use the **show vpdn history failure** command in EXEC mode.

show vpdn history failure [*user-name*]

Syntax Description

user-name	(Optional) Username, which displays only the entries mapped to that particular user.

Command Modes

EXEC

Command History

Release	Modification
11.3 T	This command was introduced.

Usage Guidelines

If a username is specified, only the entries mapped to that username are displayed; when the username is not specified, the whole table is displayed.

Examples

The following is sample output from the **show vpdn history failure** command, which displays the failure history table for a specific user:

```
Router> show vpdn history failure

    Table size: 20
    Number of entries in table: 1

    User: jcchan@cisco.com, MID = 1
    NAS: isp, IP address = 172.21.9.25, CLID = 1
    Gateway: hp-gw, IP address = 172.21.9.15, CLID = 1
    Log time: 13:08:02, Error repeat count: 1
    Failure type: The remote server closed this session
    Failure reason: Administrative intervention
```

Table 120 describes the significant fields shown in the display.

Table 120 show vpdn history failure Field Descriptions

Field	Description
Table size	Configurable VPDN history table size.
Number of entries in table	Number of entries currently in the history table.
User	Username for the entry displayed.
MID	VPDN user session ID that correlates to the logged event. The MID is a unique ID per user session.
NAS	Network access server identity.

Table 120 show vpdn history failure Field Descriptions (continued)

Field	Description
IP address	IP address of the network access server or home gateway (HGW).
CLID	Tunnel endpoint for the network access server and HGW.
Gateway	HGW end of the VPDN tunnel.
Log time	The event logged time.
Error repeat count	Number of times a failure entry has been logged under a specific user. Only one log entry is allowed per user and is unique to its MID, with the older one being overwritten.
Failure type	Description of failure.
Failure reason	Reason for failure.

Related Commands

Command	Description
clear vpdn history failure	Clears the content of the VPDN failure history table.
vpdn history failure	Enables logging of VPDN failures to the history failure table or to sets the failure history table size.

show vpdn multilink

To see the multilink sessions authorized for all virtual private dialup network (VPDN) groups, use the **show vpdn multilink** command in EXEC mode.

show vpdn multilink

Syntax Description

This command has no arguments or keywords.

Command Modes

EXEC

Command History

Release	Modification
12.0(4)XI	This command was introduced.

Examples

Following is sample output comparing the **show vpdn tunnel** command with the **show vpdn multilink** command:

```
Router# show vpdn tunnel

L2F Tunnel and Session Information (Total tunnels=1 sessions=1)

 NAS CLID HGW CLID NAS Name        HGW Name        State
 24       10       centi3_nas      twu253_hg       open
                   172.21.9.46     172.21.9.67

 CLID   MID    Username                   Intf   State
 10     1      twu@twu-ultra.cisco.com    Se0:22 open

Router# show vpdn multilink

Multilink Bundle Name   VPDN Group Active links Reserved links Bundle/Link Limit
---------------------   ---------- ------------ -------------- -----------------
twu@twu-ultra.cisco.com vgdnis     1            0              */*
```

Table 121 describes the significant fields shown in the display.

Table 121 show vpdn multilink Field Descriptions

Field	Description
NAS CLID	Network access server Caller Line Identification number (CLID).
HGW CLID	Home gateway (HGW) Caller Line Identification number (CLID).
NAS Name	Name assigned to the NAS.
HGW Name	Name assigned to the HGW.
State	Operational state of the designated piece of equipment.
CLID	Calling Line Identification number.
MID	Modem Identification.

Table 121 show vpdn multilink Field Descriptions (continued)

Field	Description
Username	Assigned user name.
Intf	Type of interface.
State	Operational state of the designated piece of equipment.
Multilink Bundle Name	Name of the multilink bundle.
VPDN Group	Name of the VPDN group.
Active Links	Number of active links.
Reserved Links	Number of reserved links.
Bundle/Link limit	Limit of bundles or links available.

show vpdn session

To display session information about active Layer 2 sessions for a virtual private dialup network (VPDN), use the **show vpdn session** command in privileged EXEC mode.

show vpdn session [**all** [*filter*] | **packets** [*filter*] | **sequence** [*filter*] | **state** [*filter*]]

Syntax Description

all	(Optional) Displays extensive reports about active sessions.
filter	(Optional) One of the filter parameters defined in Table 121.
packets	(Optional) Displays information about packet and byte counts for sessions.
sequence	(Optional) Displays sequence information for sessions.
state	(Optional) Displays state information for sessions.

Command Modes

Privileged EXEC

Command History

Release	Modification
11.2	This command was introduced.
12.1(1)T	This command was enhanced to display Point-to-Point Protocol over Ethernet (PPPoE) session information. Support was added for the **packets** and **all** keywords.
12.1(2)T	This command was enhanced to display PPPoE session information on actual Ethernet interfaces.

Usage Guidelines

Use the **show vpdn session** command to display information about all active sessions using L2TP, L2F, and PPTP.

The output of the **show vpdn session** command displays PPPoE session information as well. PPPoE is supported on ATM permanent virtual connections (PVCs) compliant with RFC 1483 only. PPPoE is not supported on Frame Relay and any other LAN interfaces such as FDDI and Token Ring.

Reports and options for this command depend upon the configuration in which it is used. Use the command-line question mark (?) help function to display options available with the **show vpdn session** command.

Table 121defines the filter parameters available to refine the output of the **show vpdn session** command. You may use any one of the filter parameters in place of the *filter* argument.

Table 122 Filter Parameters for the show vpdn session Command

Syntax	Description
interface serial *number*	Filters the output to display only information for sessions associated with the specified serial interface. • *number*—The serial interface number.
interface virtual-template *number*	Filters the output to display only information for sessions associated with the specified virtual template. • *number*—The virtual template number.
tunnel id *tunnel-id session-id*	Filters the output to display only information for sessions associated with the specified tunnel ID and session ID. • *tunnel-id*—The local tunnel ID. Valid values range from 1 to 65535. • *session-id*—The local session ID. Valid values range from 1 to 65535.
tunnel remote-name *remote-name local-name*	Filters the output to display only information for sessions associated with the tunnel with the specified names. • *remote-name*—The remote tunnel name. • *local-name*—The local tunnel name.
username *username*	Filters the output to display only information for sessions associated with the specified username. • *username*—The username.

Examples

The **show vpdn session** command provides reports on call activity for all active sessions. The following output is from a device carrying active L2TP, L2F, and PPPoE sessions:

```
Router# show vpdn session

L2TP Session Information Total tunnels 1 sessions 4

LocID RemID TunID Intf          Username             State    Last Chg Uniq ID
4     691   13695 Se0/0         nobody2@cisco.com        est    00:06:00  4
5     692   13695 SSS Circuit   nobody1@cisco.com        est    00:01:43  8
6     693   13695 SSS Circuit   nobody1@cisco.com        est    00:01:43  9
3     690   13695 SSS Circuit   nobody3@cisco.com        est    2d21h     3

L2F Session Information Total tunnels 1 sessions 2

 CLID   MID    Username                  Intf          State   Uniq ID
 1      2      nobody@cisco.com             SSS Circuit   open    10
 1      3      nobody@cisco.com             SSS Circuit   open    11

%No active PPTP tunnels

PPPoE Session Information Total tunnels 1 sessions 7

PPPoE Session Information
UID    SID    RemMAC         OIntf          Intf      Session
              LocMAC                        VASt      state
3      1      0030.949b.b4a0 Fa2/0          N/A       CNCT_FWDED
              0010.7b90.0840
```

```
6       2       0030.949b.b4a0 Fa2/0          Vi1.1      CNCT_PTA
                0010.7b90.0840               UP
7       3       0030.949b.b4a0 Fa2/0          Vi1.2      CNCT_PTA
                0010.7b90.0840               UP
8       4       0030.949b.b4a0 Fa2/0          N/A        CNCT_FWDED
                0010.7b90.0840
9       5       0030.949b.b4a0 Fa2/0          N/A        CNCT_FWDED
                0010.7b90.0840
10      6       0030.949b.b4a0 Fa2/0          N/A        CNCT_FWDED
                0010.7b90.0840
11      7       0030.949b.b4a0 Fa2/0          N/A        CNCT_FWDED
                0010.7b90.0840
```

Table 123 describes the significant fields in the **show vpdn session** display.

Table 123 show vpdn session Field Descriptions

Field	Description
LocID	Local identifier.
RemID	Remote identifier.
TunID	Tunnel identifier.
Intf	Interface associated with the session.
Username	User domain name.
State	Status for the individual user in the tunnel; can be one of the following states: • est • opening • open • closing • closed • waiting_for_tunnel The waiting_for_tunnel state means that the user connection is waiting until the main tunnel can be brought up before it moves to the opening state.
Last Chg	Time interval (in hh:mm:ss) since last change occurred.
Uniq ID (Unique ID:)	The unique identifier used to correlate this particular session with the sessions retrieved from other **show** commands or **debug** command traces.
CLID	A number uniquely identifying the session.
MID	A number uniquely identifying this user in this tunnel.
UID	PPPoE user ID.
SID	PPPoE session ID.
RemMAC	Remote Media Access Control (MAC) address of the host.
LocMAC	Local MAC address of the router. It is the default MAC address of the router.
OIntf	Outgoing interface.

Table 123 show vpdn session Field Descriptions (continued)

Field	Description
Intf VASt	Virtual access interface number and state.
Session state	PPPoE session state.

The **show vpdn session packets** command provides reports on call activity for all the currently active sessions. The following output is from a device carrying an active PPPoE session:

```
Router# show vpdn session packets

%No active L2TP tunnels
%No active L2F tunnels

PPPoE Session Information Total tunnels 1 sessions 1
PPPoE Session Information
SID     Pkts-In         Pkts-Out        Bytes-In        Bytes-Out
1       202333          202337          2832652         2832716
```

Table 124 describes the significant fields shown in the **show vpdn session packets** command display.

Table 124 show vpdn session packets Field Descriptions

Field	Description
SID	Session ID for the PPPoE session.
Pkts-In	Number of packets coming into this session.
Pkts-Out	Number of packets going out of this session.
Bytes-In	Number of bytes coming into this session.
Bytes-Out	Number of bytes going out of this session.

The **show vpdn session all** command provides extensive reports on call activity for all the currently active sessions. The following output is from a device carrying active L2TP, L2F, and PPPoE sessions:

```
Router# show vpdn session all

L2TP Session Information Total tunnels 1 sessions 4

Session id 5 is up, tunnel id 13695
Call serial number is 3355500002
Remote tunnel name is User03
  Internet address is 10.0.0.63
  Session state is established, time since change 00:03:53
    52 Packets sent, 52 received
    2080 Bytes sent, 1316 received
  Last clearing of "show vpdn" counters never
  Session MTU is 1464 bytes
  Session username is nobody@cisco.com
    Interface
    Remote session id is 692, remote tunnel id 58582
  UDP checksums are disabled
  SSS switching enabled
  No FS cached header information available
  Sequencing is off
  Unique ID is 8

Session id 6 is up, tunnel id 13695
```

```
Call serial number is 3355500003
Remote tunnel name is User03
  Internet address is 10.0.0.63
  Session state is established, time since change 00:04:22
    52 Packets sent, 52 received
    2080 Bytes sent, 1316 received
  Last clearing of "show vpdn" counters never
  Session MTU is 1464 bytes
  Session username is nobody@cisco.com
    Interface
    Remote session id is 693, remote tunnel id 58582
  UDP checksums are disabled
  SSS switching enabled
  No FS cached header information available
  Sequencing is off
  Unique ID is 9

Session id 3 is up, tunnel id 13695
Call serial number is 3355500000
Remote tunnel name is User03
  Internet address is 10.0.0.63
  Session state is established, time since change 2d21h
    48693 Packets sent, 48692 received
    1947720 Bytes sent, 1314568 received
  Last clearing of "show vpdn" counters never
  Session MTU is 1464 bytes
  Session username is nobody2@cisco.com
    Interface
    Remote session id is 690, remote tunnel id 58582
  UDP checksums are disabled
  SSS switching enabled
  No FS cached header information available
  Sequencing is off
  Unique ID is 3

Session id 4 is up, tunnel id 13695
Call serial number is 3355500001
Remote tunnel name is User03
  Internet address is 10.0.0.63
  Session state is established, time since change 00:08:40
    109 Packets sent, 3 received
    1756 Bytes sent, 54 received
  Last clearing of "show vpdn" counters never
  Session MTU is 1464 bytes
  Session username is nobody@cisco.com
    Interface Se0/0
    Remote session id is 691, remote tunnel id 58582
  UDP checksums are disabled
  IDB switching enabled
  FS cached header information:
    encap size = 36 bytes
    4500001C BDDC0000 FF11E977 0A00003E
    0A00003F 06A506A5 00080000 0202E4D6
    02B30000
  Sequencing is off
  Unique ID is 4

L2F Session Information Total tunnels 1 sessions 2
MID: 2
User:  nobody@cisco.com
Interface:
State:  open
Packets out: 53
Bytes out: 2264
```

```
Packets in: 51
Bytes in: 1274
Unique ID: 10

  Last clearing of "show vpdn" counters never
MID: 3
User:  nobody@cisco.com
Interface:
State:  open
Packets out: 53
Bytes out: 2264
Packets in: 51
Bytes in: 1274
Unique ID: 11

Last clearing of "show vpdn" counters never

%No active PPTP tunnels

PPPoE Session Information Total tunnels 1 sessions 7

PPPoE Session Information
SID     Pkts-In         Pkts-Out        Bytes-In        Bytes-Out
1       48696           48696           681765          1314657
2       71              73              1019            1043
3       71              73              1019            1043
4       61              62              879             1567
5       61              62              879             1567
6       55              55              791             1363
7       55              55              795             1363
```

The significant fields shown in the **show vpdn session all** command display are similar to those defined in Table 123 and Table 124.

Related Commands

Command	Description
show sss session	Displays Subscriber Service Switch session status.
show vpdn	Displays basic information about all active VPDN tunnels.
show vpdn domain	Shows all VPDN domains and DNIS groups configured on the NAS.
show vpdn group	Shows a summary of the relationships among VPDN groups and customer/VPDN profiles, or summarizes the configuration of a VPDN group including DNIS/domain, load sharing information and current session information.
show vpdn history failure	Shows the content of the failure history table.
show vpdn multilink	Shows the multilink sessions authorized for all VPDN groups.
show vpdn tunnel	Displays information about active Layer 2 tunnels for a VPDN.

show vpdn tunnel

To display information about active Layer 2 tunnels for a virtual private dialup network (VPDN), use the **show vpdn** command in privileged EXEC mode.

show vpdn tunnel [**all** [*filter*] | **packets** [*filter*] | **state** [*filter*] | **summary** [*filter*] | **transport** [*filter*]]

Syntax Description

all	(Optional) Displays summary information about all active tunnels.
filter	(Optional) One of the filter parameters defined in Table 121.
packets	(Optional) Displays packet numbers and packet byte information.
state	(Optional) Displays state information for a tunnel.
summary	(Optional) Displays a summary of tunnel information.
transport	(Optional) Displays tunnel transport information.

Command Modes

Privileged EXEC

Command History

Release	Modification
11.2	This command was introduced.
12.1(1)T	Support was added for the **packet** and **all** keywords.

Usage Guidelines

Use the **show vpdn tunnel** command to display detailed information about L2TP, L2F, and PPTP VPDN tunnels.

Table 121defines the filter parameters available to refine the output of the **show vpdn tunnel** command. You may use any one of the filter parameters in place of the *filter* argument.

Table 125 Filter Parameters for the show vpdn tunnel Command

Syntax	Description
id *local-id*	Filters the output to display only information for the tunnel with the specified local ID. • *local-id*—The local tunnel ID number. Valid values range from 1 to 65535.
local-name *local-name remote-name*	Filters the output to display only information for the tunnel associated with the specified names. • *local-name*—The local tunnel name. • *remote-name*—The remote tunnel name.
remote-name *remote-name local-name*	Filters the output to display only information for the tunnel associated with the specified names. • *remote-name*—The remote tunnel name. • *local-name*—The local tunnel name.

Examples

The following is sample output from the **show vpdn tunnel** command for L2F and L2TP sessions:

```
Router# show vpdn tunnel

L2TP Tunnel Information (Total tunnels=1 sessions=1)
LocID RemID Remote Name   State  Remote Address  Port  Sessions
2     10    router1       est    172.21.9.13     1701  1

L2F Tunnel
 NAS CLID HGW CLID NAS Name        HGW Name        State
 9         1        nas1           HGW1            open
                    172.21.9.4      172.21.9.232

%No active PPTP tunnels
```

Table 126 describes the significant fields shown in the **show vpdn tunnel** command display.

Table 126 show vpdn tunnel Field Descriptions

Field	Description
LocID	Local tunnel identifier.
RemID	Remote tunnel identifier.
Remote Name	Hostname of the remote peer.
State	Status for the individual user in the tunnel; can be one of the following states: • est • opening • open • closing • closed • waiting_for_tunnel The waiting_for_tunnel state means that the user connection is waiting until the main tunnel can be brought up before it moves to the opening state.
Remote address	IP address of the remote peer.
Port	Port ID.
Sessions	Number of sessions using the tunnel.
NAS CLID	A number uniquely identifying the VPDN tunnel on the network access server (NAS).
HGW CLID	A number uniquely identifying the VPDN tunnel on the gateway.
NAS Name	Hostname and IP address of the NAS.
HGW Name	Hostname and IP address of the home gateway.

Related Commands

Command	Description
show vpdn	Displays basic information about all active VPDN tunnels.
show vpdn domain	Shows all VPDN domains and DNIS groups configured on the NAS.

Command	Description
show vpdn group	Shows a summary of the relationships among VPDN groups and customer/VPDN profiles, or summarizes the configuration of a VPDN group including DNIS/domain, load sharing information and current session information.
show vpdn history failure	Shows the content of the failure history table.
show vpdn multilink	Shows the multilink sessions authorized for all VPDN groups.
show vpdn session	Displays session information about active Layer 2 sessions for a VPDN.