ATM VP Average Traffic Rate

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This document describes the ATM VP Average Traffic Rate feature.

Finding Feature Information in This Module

Your Cisco IOS software release may not support all of the features documented in this module. To reach links to specific feature documentation in this module and to see a list of the releases in which each feature is supported, use the "Feature Information for ATM VP Average Traffic Rate" section on page 8.

Finding Support Information for Platforms and Cisco IOS and Catalyst OS Software Images

Use Cisco Feature Navigator to find information about platform support and Cisco IOS and Catalyst OS software image support. To access Cisco Feature Navigator, go to http://www.cisco.com/go/cfn. An account on Cisco.com is not required.

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Information About ATM VP Average Traffic Rate

The ATM VP Average Traffic Rate feature is a subscriber and VP traffic reporting feature that enables you to display the 5-minute traffic rates on virtual path (VP) counters. This feature extends the **show atm vp** command to provide rate information. Minute counters on the ATM VPs support the **show atm vp** command.

In releases prior to Cisco IOS Release 12.2(33)SB, the router supports packet and byte counters at the VP and virtual circuit (VC) level. VP-based rate counters are not supported.

In Cisco IOS Release 12.2(33)SB and later releases, the ATM VP Average Traffic Rate feature provides support for VP-based rate counters and enables you to display the average traffic load on the VP for the last 5 minutes. This feature is enabled by default and requires no configuration. The duration of the counters is set at 5 minutes average.

Displaying 5-Minute Traffic Rates

To display the 5-minute traffic rates, use the following command in privileged EXEC mode:

Command	Purpose
Router# **show atm vp** [*vpi*]	Displays statistical information, including the 5-minute traffic rate, for all virtual paths (VPs) on an interface or for a specific VP. (Optional) *vpi* is the ATM network virtual path identifier (VPI) of the permanent virtual path. The range is from 0 to 255. The VPI is an 8-bit field in the header of the ATM cell.

Examples for 5-Minute Traffic Rates

The following example shows sample output from the **show atm vp** command. The output displays the 5-minute traffic rates for VP 100:

```
Router# show atm vp 100
ATM4/0/0 VPI: 100, PeakRate: 1000, CesRate: 0, CDVT: 140.0 Usecs, DataVCs: 0
          CesVCs: 0, Status: ACTIVE

  VCD    VCI   Type   InPkts   OutPkts   AAL/Encap     Status
  1      100   PVC    3915     3914      AAL5-SNAP     ACTIVE

TotalInPkts: 3915, TotalOutPkts: 3914, TotalInFast: 0, TotalOutFast: 0, TotalBroadcasts: 0
5 Min Average Input Rate 312 packets/sec, 269336 bits/sec
5 Min Average Output Rate 311 packets/sec, 269256 bits/sec
TotalInPktDrops: 0, TotalOutPktDrops: 0
Total subscribed rate of active VC's: 100
```

The following example shows the 5-minute traffic rates for VP 21:

```
Router# show atm vp 21
ATM4/0/0 VPI: 21, PeakRate: 3222, CesRate: 0, CDVT: 140.0 Usecs, DataVCs: 0
          CesVCs: 0, Status: ACTIVE

  VCD    VCI   Type   InPkts   OutPkts   AAL/Encap     Status
  1      3     PVC    0        0         F4 OAM        DOWN
  2      4     PVC    0        9882      F4 OAM        DOWN

TotalInPkts: 0, TotalOutPkts: 9882, TotalInFast: 0, TotalOutFast: 0, TotalBroadcasts: 0
5 Min Average Input Rate: 0 packets/sec, 0 bits/sec
5 Min Average Output Rate: 0 packets/sec, 32 bits/sec
TotalInPktDrops: 0, TotalOutPktDrops: 0
Total subscribed rate of active VC's: 0
```

Additional References

The following sections provide references related to the ATM VP Average Traffic Rate feature.

Related Documents

Related Topic	Document Title
show atm vp command	Cisco IOS Command Reference, Release 12.2 SB

Standards

Standard	Title
No new or modified standards are supported by this feature, and support for existing standards has not been modified by this feature.	—

MIBs

MIB	MIBs Link
No new or modified MIBs are supported by this feature, and support for existing MIBs has not been modified by this feature.	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs

RFCs

RFC	Title
No new or modified RFCs are supported by this feature, and support for existing RFCs has not been modified by this feature.	—

Technical Assistance

Description	Link
The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies. To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds. Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.	http://www.cisco.com/techsupport

Command Reference

The following command is modified in the feature documented in this module. For information about all Cisco IOS commands, use the Command Lookup Tool at http://tools.cisco.com/Support/CLILookup or a Cisco IOS master commands list.

- **show atm vp**

show atm vp

To display the statistics for all virtual paths (VPs) on an interface or for a specific VP, use the **show atm vp** command in privileged EXEC mode.

show atm vp [*vpi*]

Syntax Description

vpi	(Optional) ATM network virtual path identifier (VPI) of the permanent virtual path. The range is from 0 to 255. The VPI is an 8-bit field in the header of the ATM cell.

Command Modes

Privileged EXEC

Command History

Release	Modification
11.1	This command was introduced.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2SX	This command is supported in the Cisco IOS Release 12.2SX train. Support in a specific 12.2SX release of this train depends on your feature set, platform, and platform hardware.
12.2(33)SB	This command was enhanced in Cisco IOS Release 12.2(33)SB to support VP-based rate counters and enable you to display the average traffic load on the VP for the last 5 minutes. This was implemented on the Cisco 10000 series router for the PRE3 and PRE4.

Usage Guidelines

Cisco 10000 Series Router

In Cisco IOS Release 12.2(33)SB, the output from the **show atm vp** command nolonger displays "ATM" as the type of interface, as shown in the following sample output:

```
Router# show atm vp
    DataCES PEAKCES Avg/Min BurstMCR
InterfaceVPISCVCsVCsKbpsKbpsKbpsCellsKbpsCDVTStatus
3/0/0200N/A00  20000NANANA 140.0ACTIVE
```

In Cisco IOS Release 12.2(31)SB, the output from the **show atm vp** command displays the ATM interface type:

```
Router# show atm vp
    DataCES PEAKCES Avg/Min BurstMCRCDVT
InterfaceVPISCVCsVCsKbpsKbpsKbpsCellsKbpsUsecsStatus
ATM3/0/020000  20000NANANA 140.0ACTIVE
```

Examples

The following is sample output from the **show atm vp** command. This output shows the interface name, the status of the interface, the administrative status of the interface, the port type, and the number of channels in use on the interface. The status of the interface can be UP (in operation) or DOWN (not in operation).

```
Router# show atm vp 1

ATM6/0  VPI: 1, PeakRate: 155000, CesRate: 1742, DataVCs: 1, CesVCs:1, Status: ACTIVE

     VCD    VCI   Type   InPkts   OutPkts   AAL/Encap     Status
     1      100   PVC    n/a      n/a       CES-AAL1      ACTIVE
     13     13    PVC    0        0         AAL5-SNAP     ACTIVE
     409    3     PVC    0        0         F4 OAM        ACTIVE
     410    4     PVC    0        0         F4 OAM        ACTIVE

   TotalInPkts: 0, TotalOutPkts: 0, TotalInFast: 0, TotalOutFast: 0, TotalBroadcasts: 0
```

Table 1 describes the fields shown in the display.

Table 1 show atm vp Field Descriptions

Field	Description
ATM6/0	Interface type, slot, and port number of the VP.
VPI	Virtual path identifier of the VP.
PeakRate	Maximum rate, in kbps, at which the VP can send data. Range is 84 kbps to line rate. The default is the line rate.
CesRate	Total circuit emulation service (CES) bandwidth allocated for the VP.
DataVCs	Number of data virtual circuits (VCs) on the VP.
CesVCs	Number of CES VC on the VP.
Status	Current status of the VP. Values are ACTIVE and INACTIVE.
VCD	Virtual circuit descriptor of the VC associated with this VP.
VCI	Virtual channel identifier of the VC associated with this VP.
Type	Type of VC associated with this VP. Values are PVC and SVC.
InPkts	Number of packets received on the VP.
OutPkts	Number of packets transmitted on the VP.
AAL/Encap	Type of encapsulation used on the VC associated with this VP.
Status	Status of the VP (ACTIVE or INACTIVE).
TotalInPkts:	Total number of input packets process-switched and fast-switched on the VP.
TotalOutPkts:	Total number of output packets process-switched and fast-switched on the VP.
TotalInFast	Total number of input packets fast-switched.
TotalOutFast:	Total number of output packets fast-switched.
TotalBroadcasts:	Total number of broadcast packets fast-switched.

Related Commands

Command	Description
atm pvp	Creates a PVP used to multiplex (or bundle) one or more VCs (especially CES and data VCs).

Feature Information for ATM VP Average Traffic Rate

Table 2 lists the release history for this feature.

Not all commands may be available in your Cisco IOS software release. For release information about a specific command, see the command reference documentation.

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Note Table 2 lists only the Cisco IOS software release that introduced support for a given feature in a given Cisco IOS software release train. Unless noted otherwise, subsequent releases of that Cisco IOS software release train also support that feature.

Table 2 Feature Information for ATM VP Average Traffic Rate

Feature Name	Releases	Feature Information
ATM VP Average Traffic Rate	12.2(33)SB	Enables you to display 5-minute traffic rates at the VP level. In 12.2(33)SB, this feature was introduced on the Cisco 10000 series router for the PRE2, PRE3, and PRE4. The following command was modified: **show atm vp**.