APPENDIX B

Report Samples for Monitor and Reports

This appendix provides sample Cisco PVM reports and detailed descriptions of report fields. The suites and individual reports shown here are available under both the Monitor and Report tabs in the Cisco PVM GUI.

This appendix includes the following sections:

Report Suites Overview

Table B-1 describes the report suites available under both Monitor and Reports.

Table B-1 Report Suites

Suite	Description
Application	Provides the ability to see which applications are consuming network bandwidth, and reports on the number of packets and bytes for each application protocol.
Hosts	Provides an analysis of the traffic for each specific host. These reports display data on the host IP address, in/out packets, in/out bytes, and non-unicast, broadcast, and multicast packets collected.
Conversations	Displays data on the conversation traffic between various sources and destinations. Information displayed includes source IP address, destination IP address, packets and bytes.
DSCP Group	Displays data on specific encoded information related to how packets traverse the network. These reports display data on the Aggregation Group, in/out packets, in/out bytes, application protocols, and host IP addresses.
Switch/Router	Displays the port name, bytes, packets, broadcast packets, multicast packets, link utilization, and errors collected for switches and routers.
VLANs	Displays data on the VLAN ID, errors, packets, bytes, non-unicast packets, and non-unicast bytes collected.

General Report Formats

All reports contain hyperlinks, which allow drill-down to related reports. For example, the Applications Report contains protocol names as hyperlinks, which jump to the Application Details Report when clicked. Information about using drill-down links is available in both the Monitor and Reports chapters of this guide.

Additionally, tabular reports contain blue "T" and "R" hyperlinks in each table row. These links are used to open the Trend report and Real-Time Chart, respectively, for individual sources, such as protocols or hosts. Information about using Trend reports and Real-Time Charts is available in the Monitor and Reports chapters of this guide.

Finally, column header names in Cisco PVM reports contain sorting arrows that display a new window with data sorted in either ascending or descending order (see Figure B-1).

Figure B-1 Sorting Arrows

Sample Report Views

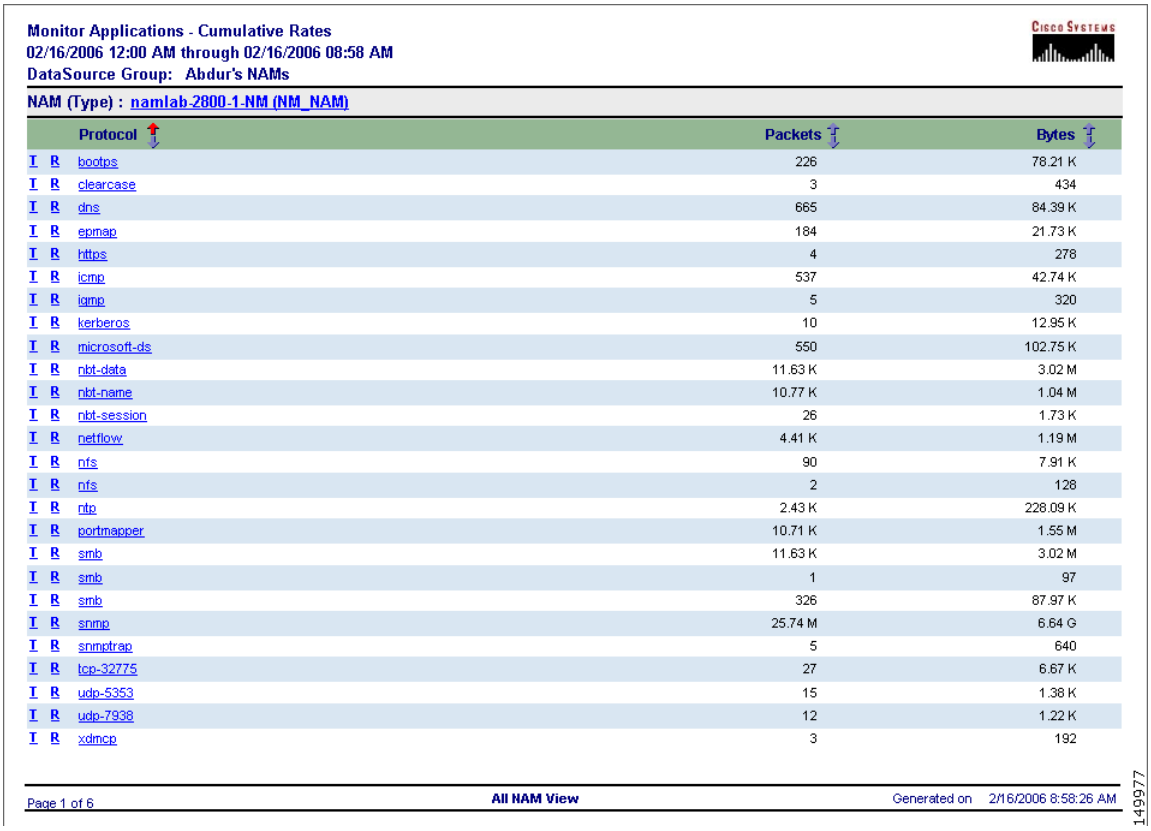
Report data can be viewed in different ways.

- **Current Rates**—Displays the statistics collected over the selected time period.
- **Cumulative Rates—**Displays the statistics collected for the selected report element since the collection was created or within the selected time period.
- **TopN**—Displays the data collected for the TopN selected report elements, such as Hosts, VLANs, or Hosts, over the selected time period.

The following figures show samples of the Cumulative Rates (Figure B-2), Current Rates (Figure B-3), and TopN (Figure B-4) report views for the Monitor – Applications report.

Note The value of N in TopN reports is configured, under **Setup > Preferences**, to values from 1—15. See Editing Preferences, page 2-50 for information on configuring the system-wide value of N for all TopN reports.

Figure B-2 Cumulative Rate Report View



Monitor Applications - Cumulative Rates
02/16/2006 12:00 AM through 02/16/2006 08:58 AM
DataSource Group: Abdur's NAMs

NAM (Type) : namlab-2800-1-NM (NM_NAM)

	Protocol	Packets	Bytes
I R	bootps	226	78.21 K
I R	clearcase	3	434
I R	dns	665	84.39 K
I R	epmap	184	21.73 K
I R	https	4	278
I R	icmp	537	42.74 K
I R	igmp	5	320
I R	kerberos	10	12.95 K
I R	microsoft-ds	550	102.75 K
I R	nbt-data	11.63 K	3.02 M
I R	nbt-name	10.77 K	1.04 M
I R	nbt-session	26	1.73 K
I R	netflow	4.41 K	1.19 M
I R	nfs	90	7.91 K
I R	nfs	2	128
I R	ntp	2.43 K	228.09 K
I R	portmapper	10.71 K	1.55 M
I R	smb	11.63 K	3.02 M
I R	smb	1	97
I R	smb	326	87.97 K
I R	snmp	25.74 M	6.64 G
I R	snmptrap	5	640
I R	tcp-32775	27	6.67 K
I R	udp-5353	15	1.38 K
I R	udp-7938	12	1.22 K
I R	xdmcp	3	192

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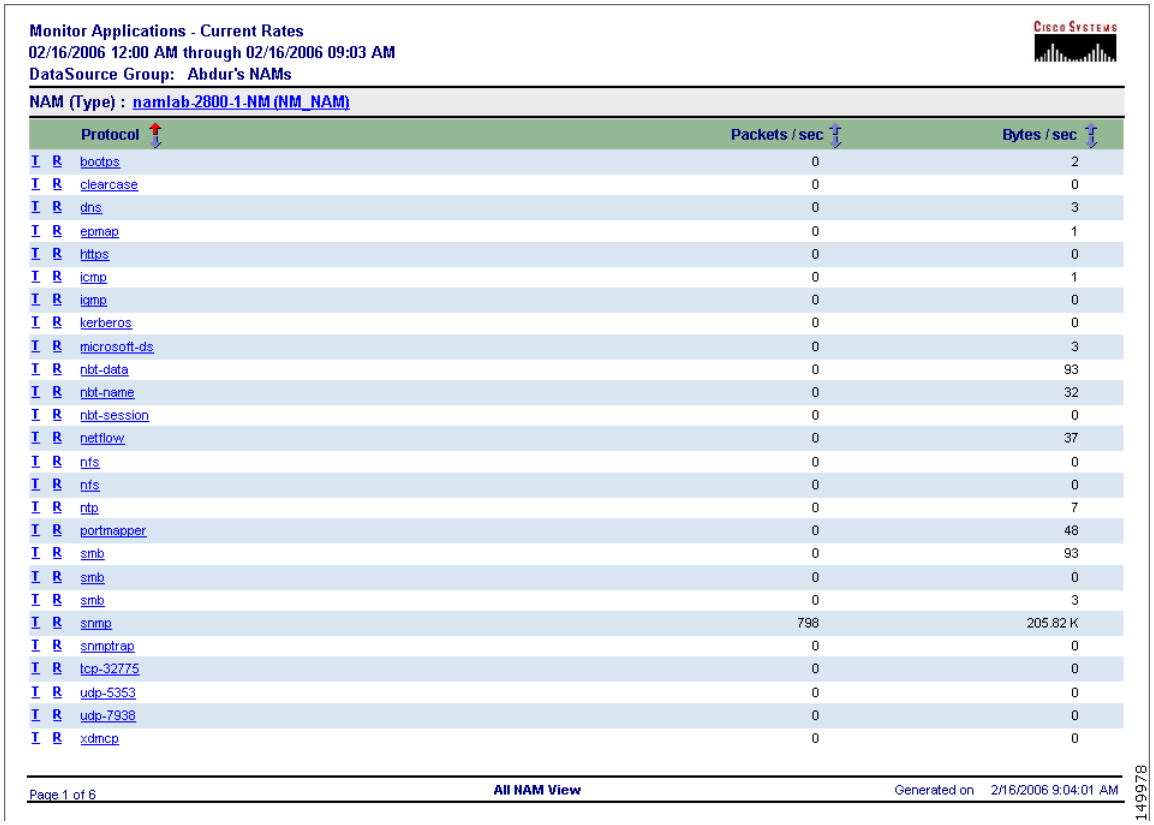
Figure B-3 Current Rate Report View



Monitor Applications - Current Rates
02/16/2006 12:00 AM through 02/16/2006 09:03 AM
DataSource Group: Abdur's NAMs

NAM (Type) : namlab-2800-1-NM (NM_NAM)

	Protocol	Packets / sec	Bytes / sec
I R	bootps	0	2
I R	clearcase	0	0
I R	dns	0	3
I R	epmap	0	1
I R	https	0	0
I R	icmp	0	1
I R	igmp	0	0
I R	kerberos	0	0
I R	microsoft-ds	0	3
I R	nbt-data	0	93
I R	nbt-name	0	32
I R	nbt-session	0	0
I R	netflow	0	37
I R	nfs	0	0
I R	nfs	0	0
I R	ntp	0	7
I R	portmapper	0	48
I R	smb	0	93
I R	smb	0	0
I R	smb	0	3
I R	snmp	798	205.82 K
I R	snmptrap	0	0
I R	tcp-32775	0	0
I R	udp-5353	0	0
I R	udp-7938	0	0
I R	xdmcp	0	0

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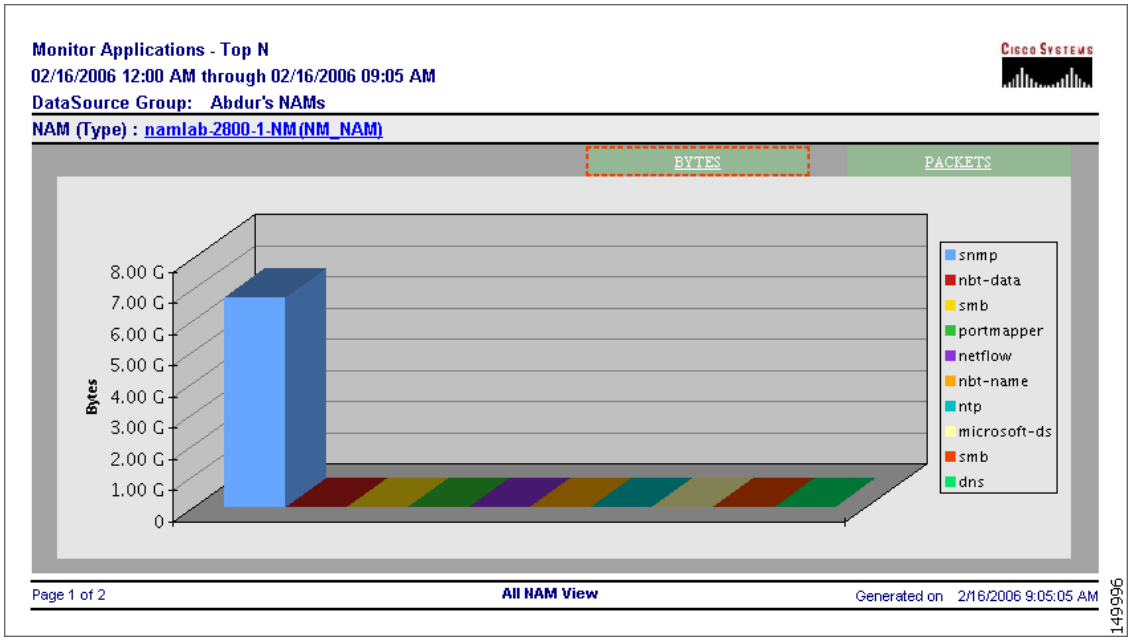
Figure B-4 TopN Report View



Note The report samples shown in the remainder of this appendix are Cumulative Rate views only.

Sample Reports by Suite

This section describes individual reports under each suite:

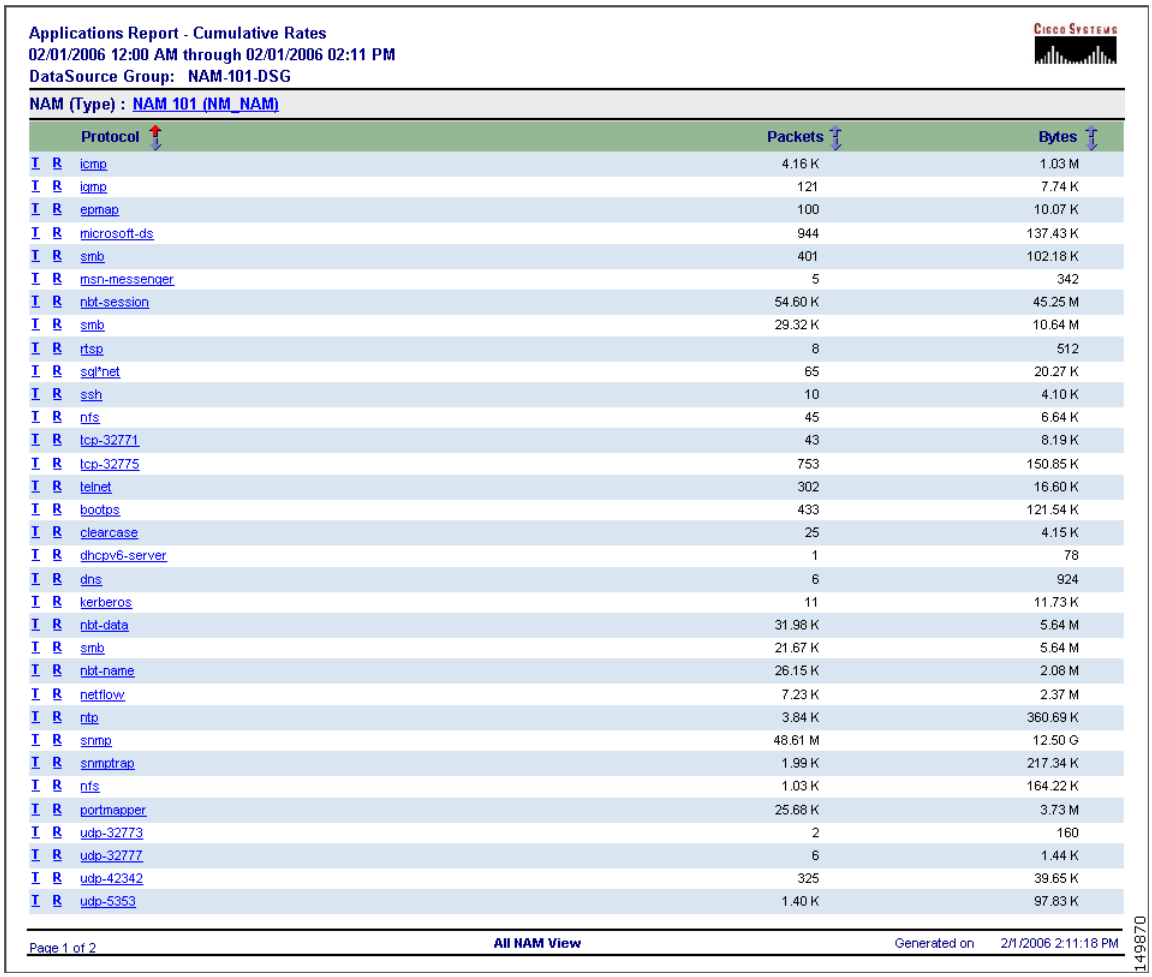
Applications

These reports provide the ability to see which applications are consuming network bandwidth. The Applications suite contains the following reports:

Applications Report

The Applications Report (Figure B-5) provides the number of packets and bytes collected for each application protocol.

Figure B-5 Sample Applications Report



Applications Report - Cumulative Rates
02/01/2006 12:00 AM through 02/01/2006 02:11 PM
DataSource Group: NAM-101-DSG

NAM (Type) : NAM 101 (NM_NAM)

	Protocol	Packets	Bytes
I R	icmp	4.16 K	1.03 M
I R	igmp	121	7.74 K
I R	epmap	100	10.07 K
I R	microsoft-ds	944	137.43 K
I R	smb	401	102.18 K
I R	msn-messenger	5	342
I R	nbt-session	54.60 K	45.25 M
I R	smb	29.32 K	10.64 M
I R	rtsp	8	512
I R	sql*net	65	20.27 K
I R	ssh	10	4.10 K
I R	nfs	45	6.64 K
I R	tcp-32771	43	8.19 K
I R	tcp-32775	753	150.85 K
I R	telnet	302	16.60 K
I R	bootps	433	121.54 K
I R	clearcase	25	4.15 K
I R	dhcpv6-server	1	78
I R	dns	6	924
I R	kerberos	11	11.73 K
I R	nbt-data	31.98 K	5.64 M
I R	smb	21.67 K	5.64 M
I R	nbt-name	26.15 K	2.08 M
I R	netflow	7.23 K	2.37 M
I R	ntp	3.84 K	360.69 K
I R	snmp	48.61 M	12.50 G
I R	snmptrap	1.99 K	217.34 K
I R	nfs	1.03 K	164.22 K
I R	portmapper	25.68 K	3.73 M
I R	udp-32773	2	160
I R	udp-32777	6	1.44 K
I R	udp-42342	325	39.65 K
I R	udp-5353	1.40 K	97.83 K

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Table B-2 describes the fields in the Applications Report.

Table B-2 Applications Report Field Descriptions

Field	Description
Protocol	Name of the application protocol.
Packets	Number of packets collected.
Bytes	Number of bytes collected.

Application Details Report

The Application Details Report (Figure B-6) may be accessed via drill-down from the Applications Report or directly from the navigation menu. It lists, for a selected protocol, the host, in/out packets, and in/out bytes to provide a detailed view of the application traffic for each host.

Note The Application Details report is not available as a report selection in the Monitor GUI. However, you can drill down to this report from the Applications report

Figure B-6 Sample Application Details Report

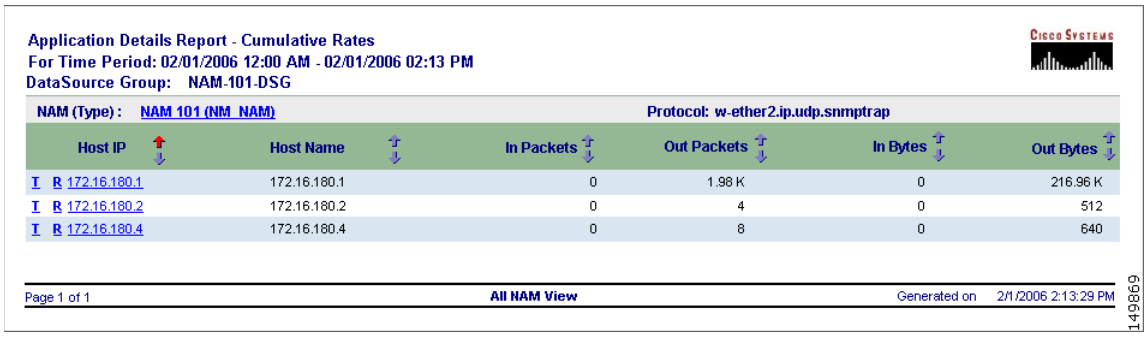


Table B-3 describes the fields in the Application Details Report.

Table B-3 Application Details Report Field Descriptions

Field	Description
Host IP	IP address of each host using the selected protocol.
In Packets	Number of inbound packets collected.
Out Packets	Number of outbound packets collected.
In Bytes	Number of inbound bytes collected.
Out Bytes	Number of outbound bytes collected.

Hosts

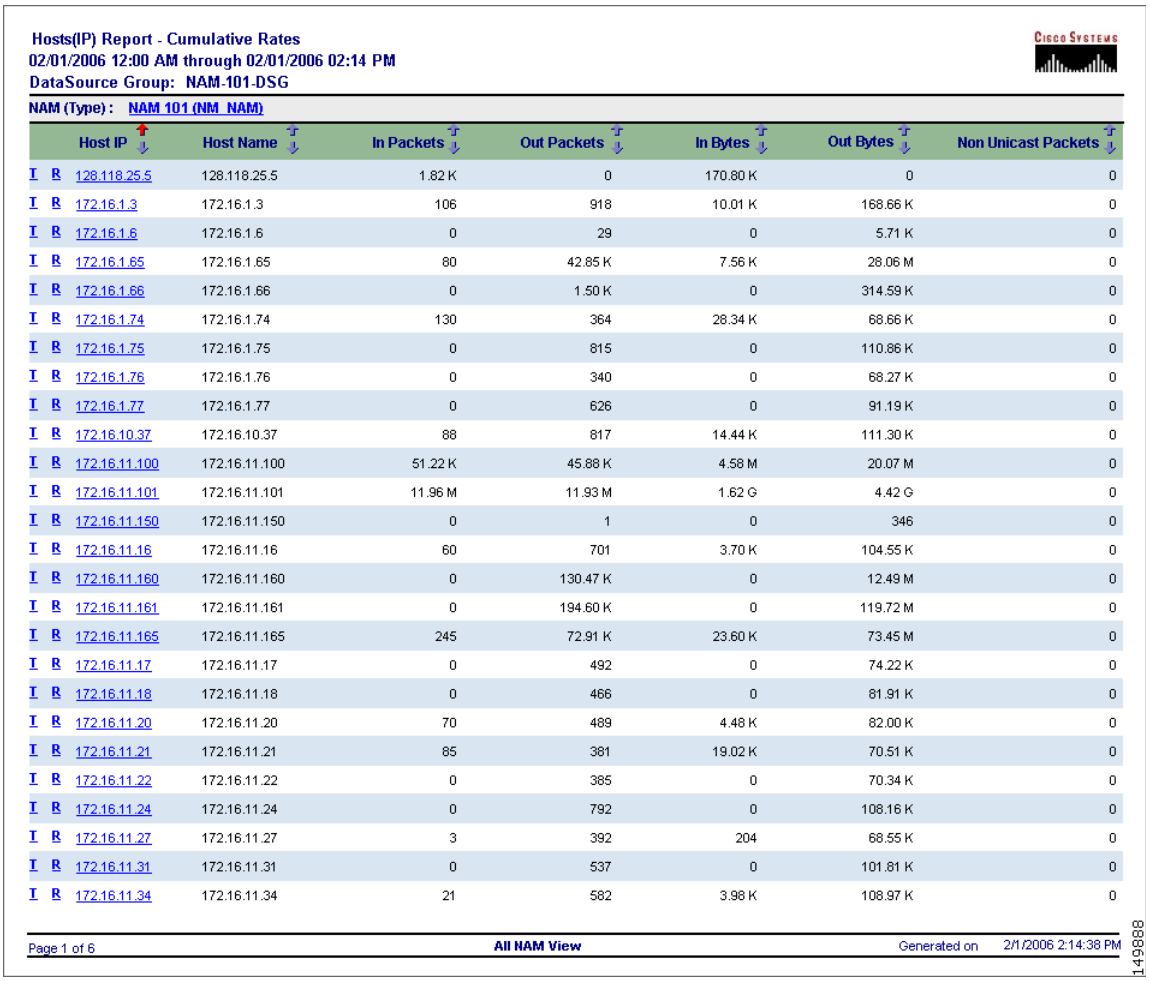
Host reports provide an analysis of the traffic for each specific host, including host IP and MAC addresses. The Hosts suite contains the following reports:

- Hosts (IP) Report, page B-7
- Hosts (MAC) Report, page B-8
- Host Details Report, page B-9

Hosts (IP) Report

The Hosts (IP) Report (Figure B-7) displays detailed traffic information by host IP address.

Figure B-7 Sample Hosts (IP) Report



Hosts(IP) Report - Cumulative Rates
02/01/2006 12:00 AM through 02/01/2006 02:14 PM
DataSource Group: NAM-101-DSG

NAM (Type) : NAM 101 (NM_NAM)

	Host IP	Host Name	In Packets	Out Packets	In Bytes	Out Bytes	Non Unicast Packets
I R	128.118.25.5	128.118.25.5	1.82 K	0	170.80 K	0	0
I R	172.16.1.3	172.16.1.3	106	918	10.01 K	168.66 K	0
I R	172.16.1.6	172.16.1.6	0	29	0	5.71 K	0
I R	172.16.1.65	172.16.1.65	80	42.85 K	7.56 K	28.06 M	0
I R	172.16.1.66	172.16.1.66	0	1.50 K	0	314.59 K	0
I R	172.16.1.74	172.16.1.74	130	364	28.34 K	68.66 K	0
I R	172.16.1.75	172.16.1.75	0	815	0	110.86 K	0
I R	172.16.1.76	172.16.1.76	0	340	0	68.27 K	0
I R	172.16.1.77	172.16.1.77	0	626	0	91.19 K	0
I R	172.16.10.37	172.16.10.37	88	817	14.44 K	111.30 K	0
I R	172.16.11.100	172.16.11.100	51.22 K	45.88 K	4.58 M	20.07 M	0
I R	172.16.11.101	172.16.11.101	11.96 M	11.93 M	1.62 G	4.42 G	0
I R	172.16.11.150	172.16.11.150	0	1	0	346	0
I R	172.16.11.16	172.16.11.16	60	701	3.70 K	104.55 K	0
I R	172.16.11.160	172.16.11.160	0	130.47 K	0	12.49 M	0
I R	172.16.11.161	172.16.11.161	0	194.60 K	0	119.72 M	0
I R	172.16.11.165	172.16.11.165	245	72.91 K	23.60 K	73.45 M	0
I R	172.16.11.17	172.16.11.17	0	492	0	74.22 K	0
I R	172.16.11.18	172.16.11.18	0	466	0	81.91 K	0
I R	172.16.11.20	172.16.11.20	70	489	4.48 K	82.00 K	0
I R	172.16.11.21	172.16.11.21	85	381	19.02 K	70.51 K	0
I R	172.16.11.22	172.16.11.22	0	385	0	70.34 K	0
I R	172.16.11.24	172.16.11.24	0	792	0	108.16 K	0
I R	172.16.11.27	172.16.11.27	3	392	204	68.55 K	0
I R	172.16.11.31	172.16.11.31	0	537	0	101.81 K	0
I R	172.16.11.34	172.16.11.34	21	582	3.98 K	108.97 K	0

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Table B-4 describes the fields in the Hosts (IP) Report.

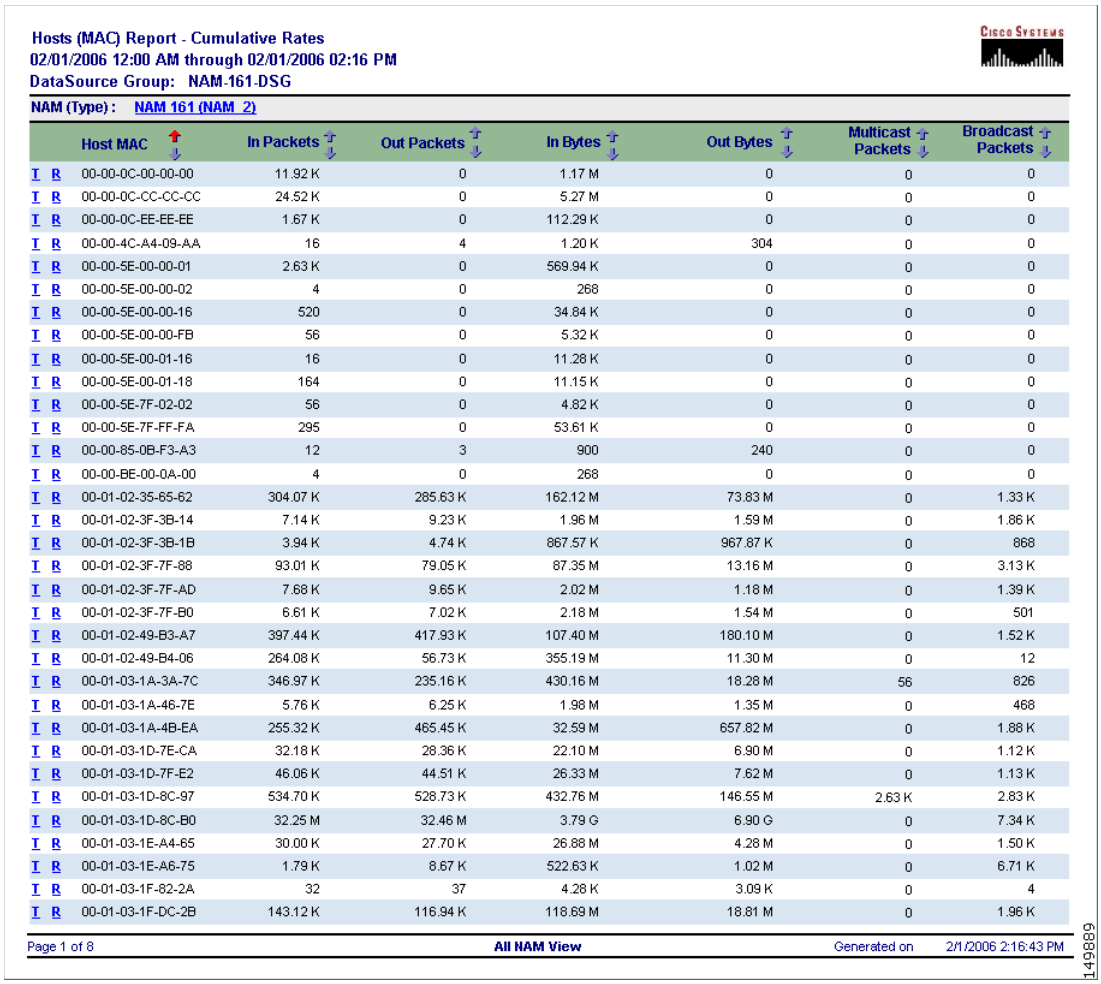
Table B-4 Hosts (IP) Report Field Descriptions

Field	Description
Host IP	Network address of the host.
Host Name	The name of the host at the corresponding IP address.
In Packets	Number of input packets collected.
Out Packets	Number of output packets collected.
In Bytes	Number of input bytes collected.
Out Bytes	Number of output bytes collected.
Non Unicast Packets	Number of non-unicast broadcast packets collected.

Hosts (MAC) Report

The Hosts (MAC) Report (Figure B-8) displays detailed information by host MAC address.

Figure B-8 Sample Hosts (MAC) Report



Hosts (MAC) Report - Cumulative Rates
02/01/2006 12:00 AM through 02/01/2006 02:16 PM
DataSource Group: NAM-161-DSG

NAM (Type) : NAM 161 (NAM_2)

	Host MAC	In Packets	Out Packets	In Bytes	Out Bytes	Multicast Packets	Broadcast Packets
T R	00-00-0C-00-00-00	11.92 K	0	1.17 M	0	0	0
T R	00-00-0C-CC-CC-CC	24.52 K	0	5.27 M	0	0	0
T R	00-00-0C-EE-EE-EE	1.67 K	0	112.29 K	0	0	0
T R	00-00-4C-A4-09-AA	16	4	1.20 K	304	0	0
T R	00-00-5E-00-00-01	2.63 K	0	569.94 K	0	0	0
T R	00-00-5E-00-00-02	4	0	268	0	0	0
T R	00-00-5E-00-00-16	520	0	34.84 K	0	0	0
T R	00-00-5E-00-00-FB	56	0	5.32 K	0	0	0
T R	00-00-5E-00-01-16	16	0	11.28 K	0	0	0
T R	00-00-5E-00-01-18	164	0	11.15 K	0	0	0
T R	00-00-5E-7F-02-02	56	0	4.82 K	0	0	0
T R	00-00-5E-7F-FF-FA	295	0	53.61 K	0	0	0
T R	00-00-85-0B-F3-A3	12	3	900	240	0	0
T R	00-00-BE-00-0A-00	4	0	268	0	0	0
T R	00-01-02-35-65-62	304.07 K	285.63 K	162.12 M	73.83 M	0	1.33 K
T R	00-01-02-3F-3B-14	7.14 K	9.23 K	1.96 M	1.59 M	0	1.86 K
T R	00-01-02-3F-3B-1B	3.94 K	4.74 K	867.57 K	967.87 K	0	868
T R	00-01-02-3F-7F-88	93.01 K	79.05 K	87.35 M	13.16 M	0	3.13 K
T R	00-01-02-3F-7F-AD	7.68 K	9.65 K	2.02 M	1.18 M	0	1.39 K
T R	00-01-02-3F-7F-B0	6.61 K	7.02 K	2.18 M	1.54 M	0	501
T R	00-01-02-49-B3-A7	397.44 K	417.93 K	107.40 M	180.10 M	0	1.52 K
T R	00-01-02-49-B4-06	264.08 K	56.73 K	355.19 M	11.30 M	0	12
T R	00-01-03-1A-3A-7C	346.97 K	235.16 K	430.16 M	18.28 M	56	826
T R	00-01-03-1A-46-7E	5.76 K	6.25 K	1.98 M	1.35 M	0	468
T R	00-01-03-1A-4B-EA	255.32 K	465.45 K	32.59 M	657.82 M	0	1.88 K
T R	00-01-03-1D-7E-CA	32.18 K	28.36 K	22.10 M	6.90 M	0	1.12 K
T R	00-01-03-1D-7F-E2	46.06 K	44.51 K	26.33 M	7.62 M	0	1.13 K
T R	00-01-03-1D-8C-97	534.70 K	528.73 K	432.76 M	146.55 M	2.63 K	2.83 K
T R	00-01-03-1D-8C-B0	32.25 M	32.46 M	3.79 G	6.90 G	0	7.34 K
T R	00-01-03-1E-A4-65	30.00 K	27.70 K	26.88 M	4.28 M	0	1.50 K
T R	00-01-03-1E-A6-75	1.79 K	8.67 K	522.63 K	1.02 M	0	6.71 K
T R	00-01-03-1F-82-2A	32	37	4.28 K	3.09 K	0	4
T R	00-01-03-1F-DC-2B	143.12 K	116.94 K	118.69 M	18.81 M	0	1.96 K

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Table B-5 describes the fields in the Hosts (MAC) Report.

Table B-5 Hosts (MAC) Report Field Descriptions

Field	Description
Host MAC	Network address of the host.
In Packets	Number of input packets collected.
Out Packets	Number of output packets collected.
In Bytes	Number of input bytes collected.
Out Bytes	Number of output bytes collected.
Multicast Packets	Number of multicast packets collected.
Broadcast Packets	Number of broadcast packets collected.

Host Details Report

The Host Details Report (Figure B-9) displays detailed information on traffic by application.

Note The Host Details Report is not available as a report selection in the Monitor GUI. However, you can still drill down to this report from another Host report.

Figure B-9 Sample Host Details Report

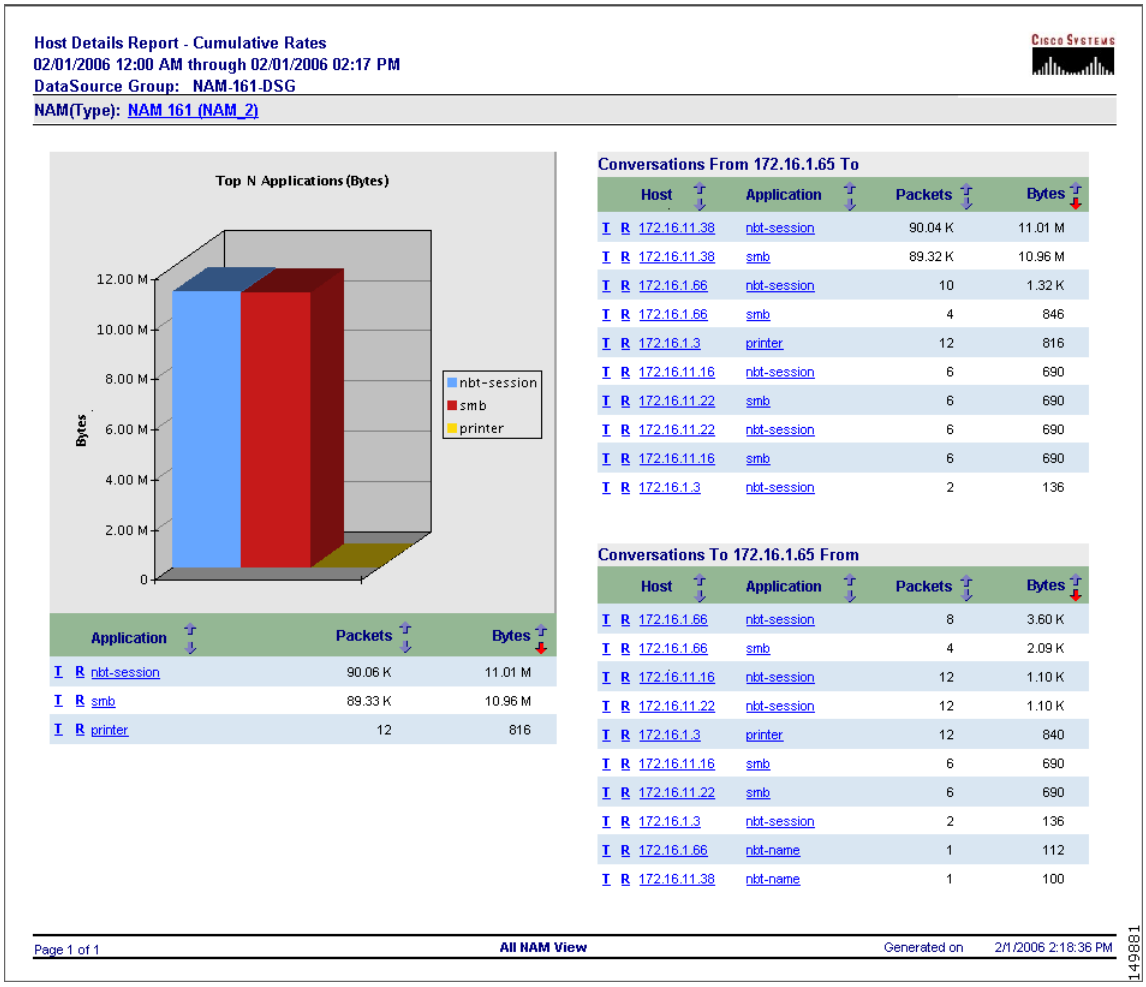


Table B-6 describes the fields in the Host Details Report.

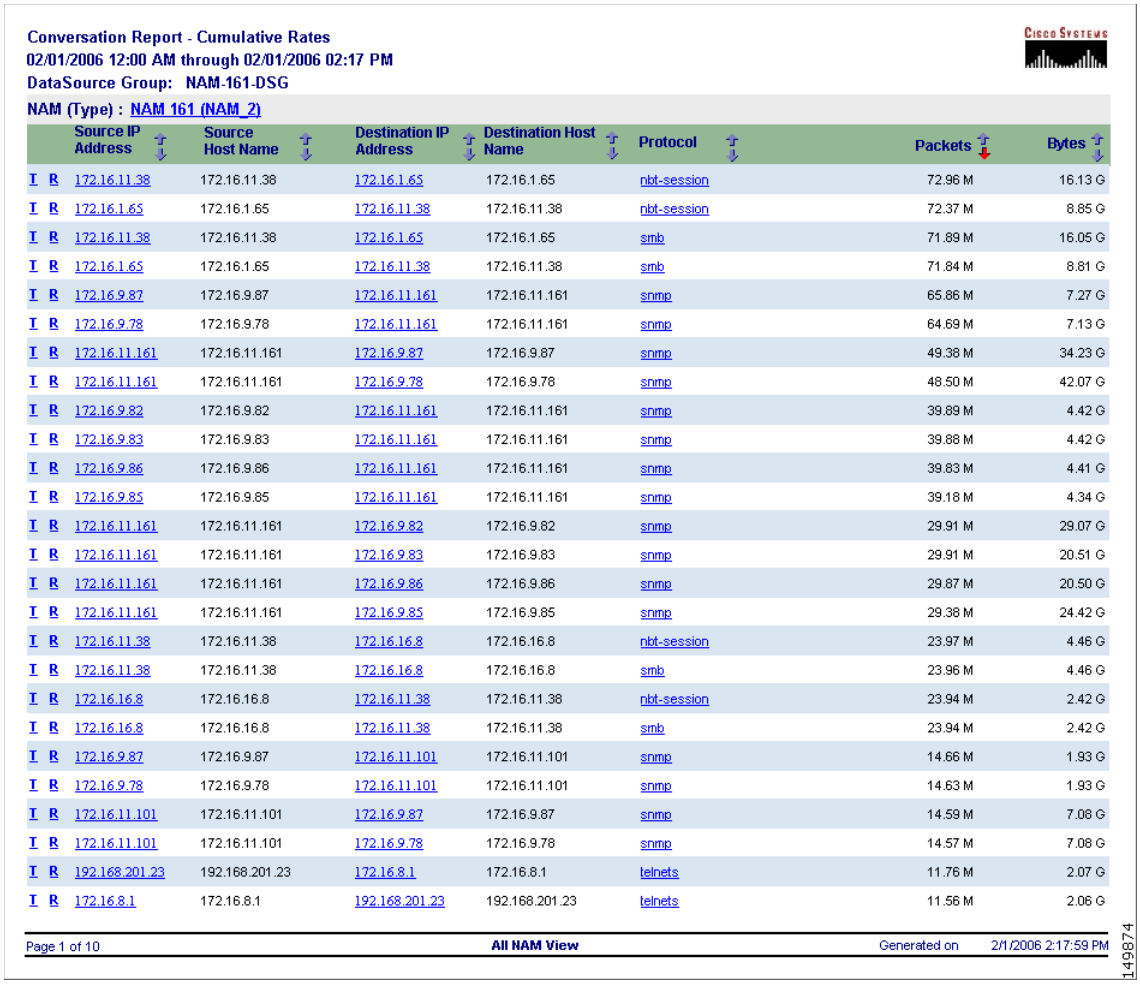
Table B-6 Host Details Report Field Descriptions

Field	Description
Host	Network address of the host.
Application	Name of the application protocol.
Packets	Number of packets collected.
Bytes	Number of bytes collected.

Conversations

The Conversations suite contains a single Conversation Report (Figure B-10) that displays data on the traffic between various sources and destinations.

Figure B-10 Sample Conversation Report



Conversation Report - Cumulative Rates
02/01/2006 12:00 AM through 02/01/2006 02:17 PM
DataSource Group: NAM-161-DSG
NAM (Type) : NAM 161 (NAM_2)

	Source IP Address	Source Host Name	Destination IP Address	Destination Host Name	Protocol	Packets	Bytes
I R	172.16.11.38	172.16.11.38	172.16.1.65	172.16.1.65	nbt-session	72.96 M	16.13 G
I R	172.16.1.65	172.16.1.65	172.16.11.38	172.16.11.38	nbt-session	72.37 M	8.85 G
I R	172.16.11.38	172.16.11.38	172.16.1.65	172.16.1.65	smb	71.89 M	16.05 G
I R	172.16.1.65	172.16.1.65	172.16.11.38	172.16.11.38	smb	71.84 M	8.81 G
I R	172.16.9.87	172.16.9.87	172.16.11.161	172.16.11.161	snmp	65.86 M	7.27 G
I R	172.16.9.78	172.16.9.78	172.16.11.161	172.16.11.161	snmp	64.69 M	7.13 G
I R	172.16.11.161	172.16.11.161	172.16.9.87	172.16.9.87	snmp	49.38 M	34.23 G
I R	172.16.11.161	172.16.11.161	172.16.9.78	172.16.9.78	snmp	48.50 M	42.07 G
I R	172.16.9.82	172.16.9.82	172.16.11.161	172.16.11.161	snmp	39.89 M	4.42 G
I R	172.16.9.83	172.16.9.83	172.16.11.161	172.16.11.161	snmp	39.88 M	4.42 G
I R	172.16.9.86	172.16.9.86	172.16.11.161	172.16.11.161	snmp	39.83 M	4.41 G
I R	172.16.9.85	172.16.9.85	172.16.11.161	172.16.11.161	snmp	39.18 M	4.34 G
I R	172.16.11.161	172.16.11.161	172.16.9.82	172.16.9.82	snmp	29.91 M	29.07 G
I R	172.16.11.161	172.16.11.161	172.16.9.83	172.16.9.83	snmp	29.91 M	20.51 G
I R	172.16.11.161	172.16.11.161	172.16.9.86	172.16.9.86	snmp	29.87 M	20.50 G
I R	172.16.11.161	172.16.11.161	172.16.9.85	172.16.9.85	snmp	29.38 M	24.42 G
I R	172.16.11.38	172.16.11.38	172.16.16.8	172.16.16.8	nbt-session	23.97 M	4.46 G
I R	172.16.11.38	172.16.11.38	172.16.16.8	172.16.16.8	smb	23.96 M	4.46 G
I R	172.16.16.8	172.16.16.8	172.16.11.38	172.16.11.38	nbt-session	23.94 M	2.42 G
I R	172.16.16.8	172.16.16.8	172.16.11.38	172.16.11.38	smb	23.94 M	2.42 G
I R	172.16.9.87	172.16.9.87	172.16.11.101	172.16.11.101	snmp	14.66 M	1.93 G
I R	172.16.9.78	172.16.9.78	172.16.11.101	172.16.11.101	snmp	14.63 M	1.93 G
I R	172.16.11.101	172.16.11.101	172.16.9.87	172.16.9.87	snmp	14.59 M	7.08 G
I R	172.16.11.101	172.16.11.101	172.16.9.78	172.16.9.78	snmp	14.57 M	7.08 G
I R	192.168.201.23	192.168.201.23	172.16.8.1	172.16.8.1	telnets	11.76 M	2.07 G
I R	172.16.8.1	172.16.8.1	192.168.201.23	192.168.201.23	telnets	11.56 M	2.06 G

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Table B-7 describes the fields in the Conversation Report.

Table B-7 Conversation Report Field Descriptions

Field	Description
Source IP Address	Source IP address for the conversation.
Destination IP Address	Destination IP address for the conversation.
Packets	Number of packets collected for the conversation over the last interval.
Bytes	Number of bytes collected for the conversation over the last interval.

DSCP Group

The Differentiated Services Code Point (DSCP) suite reports on specific encoded information related to how a packet traverses the network. DSCP monitoring allows you to validate and fine-tune planning and Quality of Service (QoS) allocations.

DSCP reports are based on the data obtained from the DSMON MIB, which is an extension of RMON-2 that looks into the IP header of every packet to identify the code point that defines how that packet should be handled by DiffServ-enabled devices. DSMON MIB allows creation of DSCP counter aggregation profiles for up to 64 values that can be grouped for aggregation. Each DSCP value may be given a different treatment by a forwarding device, affecting which packets get dropped or delayed during periods of network congestion. The DSCP reports show traffic information for the various configured DSCP aggregation groups.

Aggregation Profiles

By monitoring DSCP bits, throughput for different services can be determined. The DSMON MIB allows different DSCP values to be aggregated into *aggregation groups*, and associates these groups with *aggregation profiles* for the following reasons:

- To reduce the number of DSCP counters to monitor.
- Some DSCP values may never be used in a network.
- Different DSCP values may have similar packet treatments.
- To reduce the network management station polling data.

Cisco PVM aggregates the DSCP statistics collected from multiple NAMs. For reporting purposes, Cisco PVM assigns each DSCP profile a unique ID in the database. The system distinguishes one profile from another by examining the definition of each profile. Cisco PVM treats profile definitions as follows:

- If two profiles have the same name but differing DSCP groups, the system will assign a new ID to one of the groups, the data will be aggregated separately, and the groups will appear as two different profiles in the reports.
- If two profiles have the same definition but differing names, the system ignores the name of the new profile and aggregates the newly collected data along with other data belonging to the previously existing profile.

In each case, the system sends an alert that Administrators can view under the Cisco PVM Alerts tab.

Note Aggregation profiles and groups are configured and named in the NAM Traffic Analyzer, external to Cisco PVM.

The DSCP Group suite contains the following reports:

- DSCP Report, page B-12
- DSCP Applications Report, page B-13
- DSCP Hosts Report, page B-15

DSCP Report

The DSCP Report (Figure B-11) provides details on the Aggregation Index and traffic.

Figure B-11 Sample DSCP Report

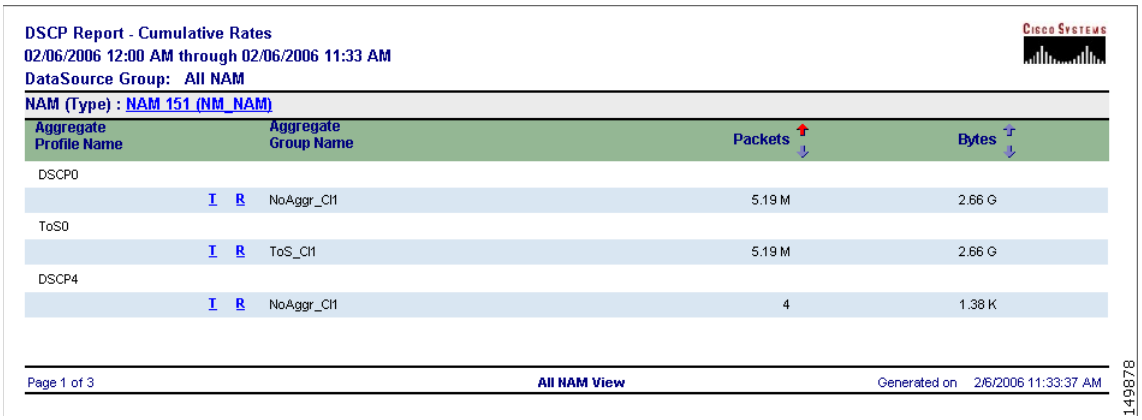


Table B-8 describes the fields in the DSCP Report.

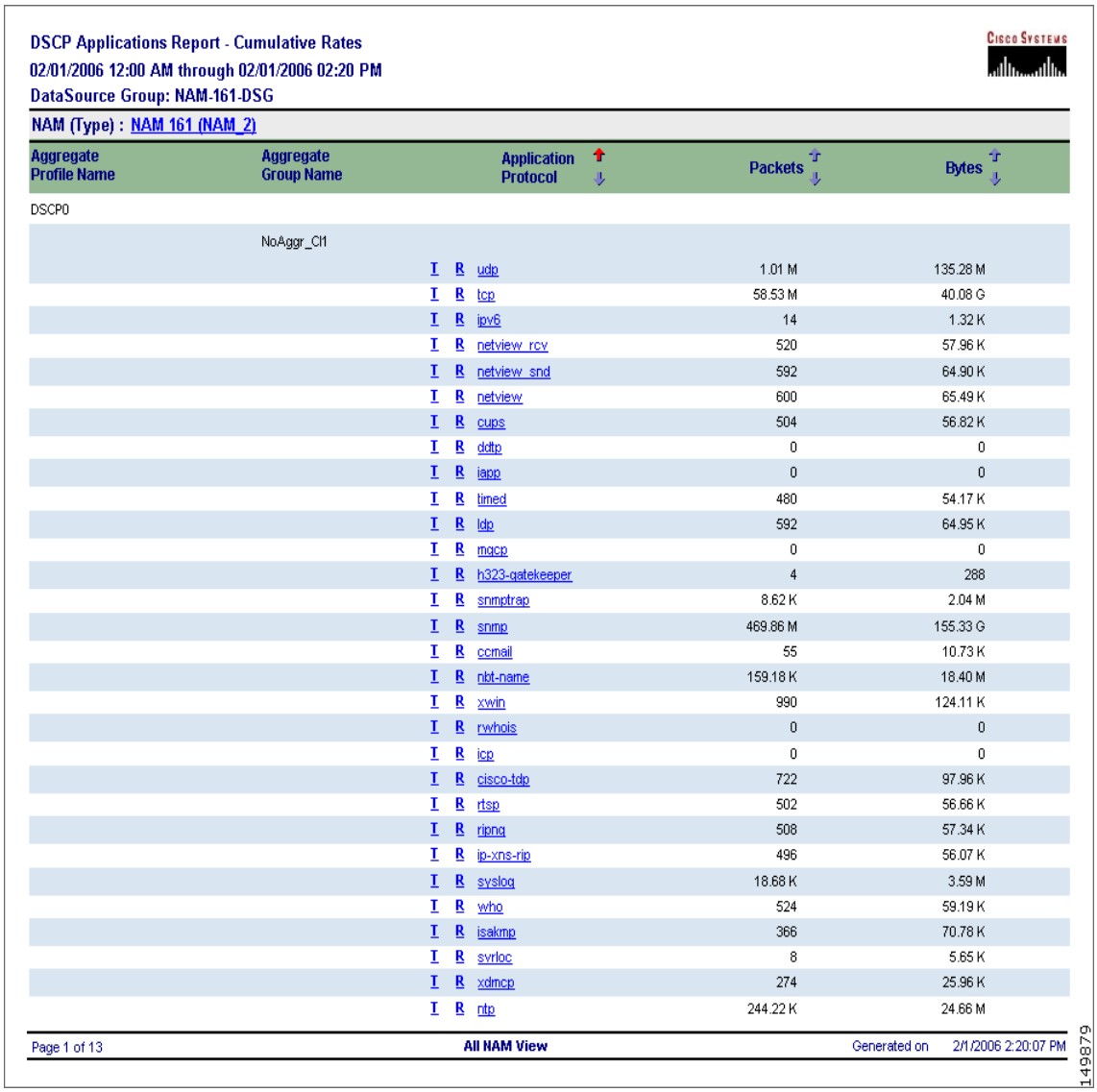
Table B-8 DSCP Report Field Descriptions

Field	Description
Aggregated Profile Name	Name of the aggregation profile.
Aggregated Group Name	Name of the aggregation group.
Packets	Total packets collected per second over the last interval.
Bytes	Total bytes collected per second over the last interval.

DSCP Applications Report

The DSCP Application Report (Figure B-12) displays details on the Aggregation Index, applications, and traffic.

Figure B-12 Sample DSCP Applications Report



DSCP Applications Report - Cumulative Rates
02/01/2006 12:00 AM through 02/01/2006 02:20 PM
DataSource Group: NAM-161-DSG

NAM (Type) : NAM 161 (NAM_2)

Aggregate Profile Name	Aggregate Group Name	Application Protocol	Packets	Bytes
DSCP0				
	NoAggr_Cl1			
		T R udp	1.01 M	135.28 M
		T R tcp	58.53 M	40.08 G
		T R ipv6	14	1.32 K
		T R netview_rcv	520	57.96 K
		T R netview_snd	592	64.90 K
		T R netview	600	65.49 K
		T R cups	504	56.82 K
		T R ddtp	0	0
		T R iapp	0	0
		T R timed	480	54.17 K
		T R ldp	592	64.95 K
		T R mqcp	0	0
		T R h323-gatekeeper	4	288
		T R snmptrap	8.62 K	2.04 M
		T R snmp	469.86 M	155.33 G
		T R ccmail	55	10.73 K
		T R nbt-name	159.18 K	18.40 M
		T R xwin	990	124.11 K
		T R rwhois	0	0
		T R icp	0	0
		T R cisco-tdp	722	97.96 K
		T R rtsp	502	56.66 K
		T R ripng	508	57.34 K
		T R ip-xns-rip	496	56.07 K
		T R syslog	18.68 K	3.59 M
		T R who	524	59.19 K
		T R isakmp	366	70.78 K
		T R svrloc	8	5.65 K
		T R xdmcp	274	25.96 K
		T R ntp	244.22 K	24.66 M

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Table B-9 describes the fields in the DSCP Applications Report.

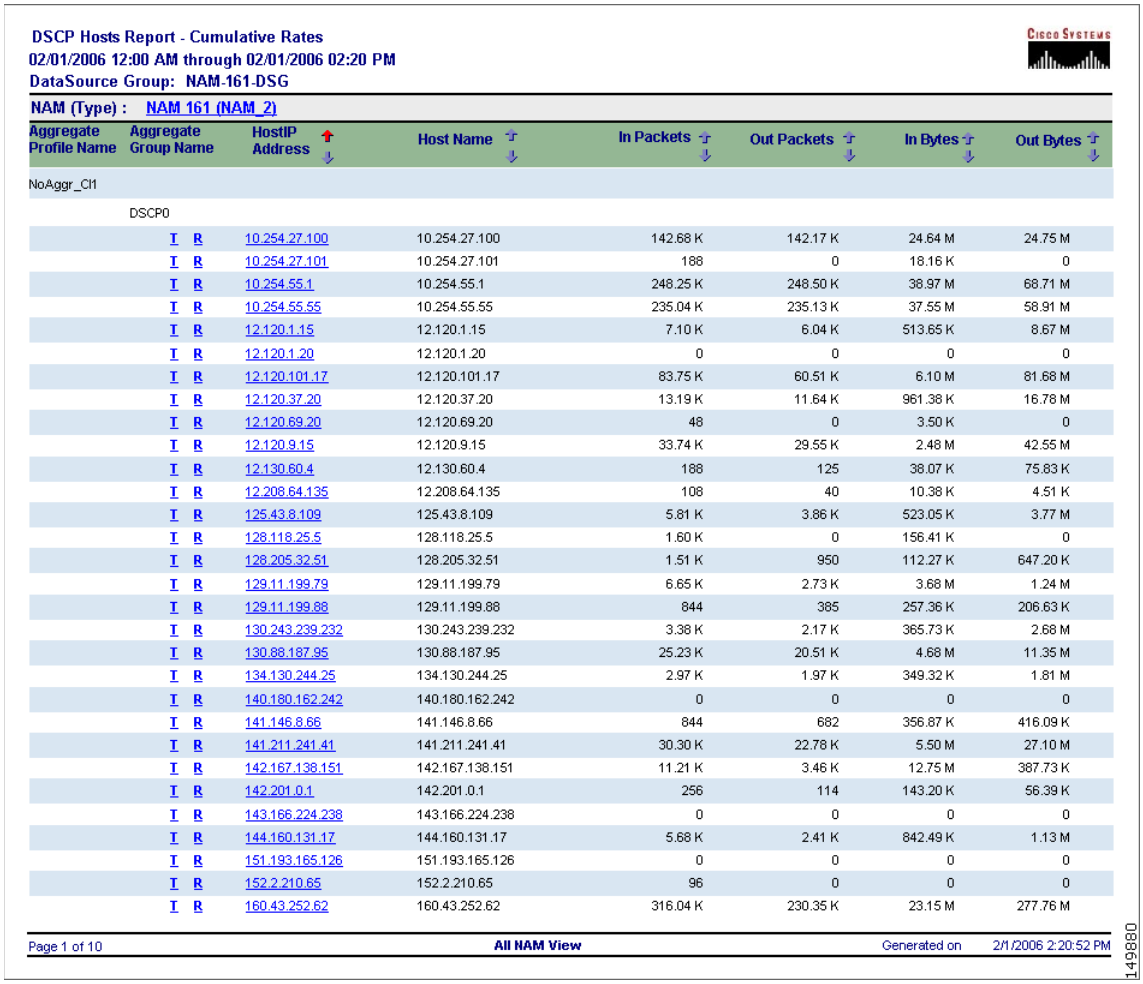
Table B-9 DSCP Applications Report Field Descriptions

Field	Description
Aggregated Profile Name	Name of the aggregation profile.
Aggregated Group Name	Name of the aggregation group.
Application Protocol	Name of the application protocol.
Packets	Total packets collected.
Bytes	Total bytes collected.

DSCP Hosts Report

The DSCP Hosts Report (Figure B-13) displays information on the Aggregation Index, host IP address, and traffic.

Figure B-13 Sample DSCP Hosts Report



DSCP Hosts Report - Cumulative Rates
02/01/2006 12:00 AM through 02/01/2006 02:20 PM
DataSource Group: NAM-161-DSG

NAM (Type) : NAM 161 (NAM_2)

Aggregate Profile Name	Aggregate Group Name	HostIP Address	Host Name	In Packets	Out Packets	In Bytes	Out Bytes
NoAggr_Cl1							
	DSCP0						
	T R	10.254.27.100	10.254.27.100	142.68 K	142.17 K	24.64 M	24.75 M
	T R	10.254.27.101	10.254.27.101	188	0	18.16 K	0
	T R	10.254.55.1	10.254.55.1	248.25 K	248.50 K	38.97 M	68.71 M
	T R	10.254.55.55	10.254.55.55	235.04 K	235.13 K	37.55 M	58.91 M
	T R	12.120.1.15	12.120.1.15	7.10 K	6.04 K	513.65 K	8.67 M
	T R	12.120.1.20	12.120.1.20	0	0	0	0
	T R	12.120.101.17	12.120.101.17	83.75 K	60.51 K	6.10 M	81.68 M
	T R	12.120.37.20	12.120.37.20	13.19 K	11.64 K	961.38 K	16.78 M
	T R	12.120.69.20	12.120.69.20	48	0	3.50 K	0
	T R	12.120.9.15	12.120.9.15	33.74 K	29.55 K	2.48 M	42.55 M
	T R	12.130.60.4	12.130.60.4	188	125	38.07 K	75.83 K
	T R	12.208.64.135	12.208.64.135	108	40	10.38 K	4.51 K
	T R	125.43.8.109	125.43.8.109	5.81 K	3.86 K	523.05 K	3.77 M
	T R	128.118.25.5	128.118.25.5	1.60 K	0	156.41 K	0
	T R	128.205.32.51	128.205.32.51	1.51 K	950	112.27 K	647.20 K
	T R	129.11.199.79	129.11.199.79	6.65 K	2.73 K	3.68 M	1.24 M
	T R	129.11.199.88	129.11.199.88	844	385	257.36 K	206.63 K
	T R	130.243.239.232	130.243.239.232	3.38 K	2.17 K	365.73 K	2.68 M
	T R	130.88.187.95	130.88.187.95	25.23 K	20.51 K	4.68 M	11.35 M
	T R	134.130.244.25	134.130.244.25	2.97 K	1.97 K	349.32 K	1.81 M
	T R	140.180.162.242	140.180.162.242	0	0	0	0
	T R	141.146.8.66	141.146.8.66	844	682	356.87 K	416.09 K
	T R	141.211.241.41	141.211.241.41	30.30 K	22.78 K	5.50 M	27.10 M
	T R	142.167.138.151	142.167.138.151	11.21 K	3.46 K	12.75 M	387.73 K
	T R	142.201.0.1	142.201.0.1	256	114	143.20 K	56.39 K
	T R	143.166.224.238	143.166.224.238	0	0	0	0
	T R	144.160.131.17	144.160.131.17	5.68 K	2.41 K	842.49 K	1.13 M
	T R	151.193.165.126	151.193.165.126	0	0	0	0
	T R	152.2.210.65	152.2.210.65	96	0	0	0
	T R	160.43.252.62	160.43.252.62	316.04 K	230.35 K	23.15 M	277.76 M

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Table B-10 describes the fields in the DSCP Hosts Report.

Table B-10 DSCP Hosts Report Field Descriptions

Field	Description
Aggregated Profile Name	Name of the aggregation profile.
Aggregated Group Name	Name of the aggregation group.
Host IP Address	IP address of each host.
Host Name	Name of the host at the corresponding IP address.
In Packets	Number of inbound packets collected.
Out Packets	Number of outbound packets collected.

Table B-10 DSCP Hosts Report Field Descriptions (continued)

Field	Description
In Bytes	Number of inbound bytes collected.
Out Bytes	Number of outbound bytes collected.

Switch/Router

This suite provides reports on metrics from switches and routers. Reports contain:

- Ethernet statistics if the switch/router supports the mini-RMON MIB.
- Interface statistics if the switch/router does not support the mini-RMON MIB.

Statistics displayed include:

- **Interface—**Reports on the Interface Name, In/Out Bytes, In/Out Packets, In/Out Non-unicast Packets, In/Out Discards, In/Out Errors, and In/Out Link Utilization percentages.
- **Ethernet Traffic Statistics**—Reports on the Port Name, Bytes, Packets, Broadcast Packets, Multicast Packets, and Errors collected.
- **Ethernet Error Statistics**—Reports on the Port Name, Dropped Events, CRC Align Errors, Undersize Packets, Oversize Packets, Fragments, Jabbers, and Collisions collected.

The Switch/Router suite contains the following reports:

- Interface Report, page B-16
- Ethernet Traffic Report, page B-17
- Ethernet Error Report, page B-18

Interface Report

For switches and routers that do not support the mini-RMON MIB, the Interface Report (Figure B-14) displays in/out traffic, the amount of discarded traffic data, the number of errors, and the percent link utilization The interface data collection includes data for both edge and core routers and switches.

Figure B-14 Sample Interface Report

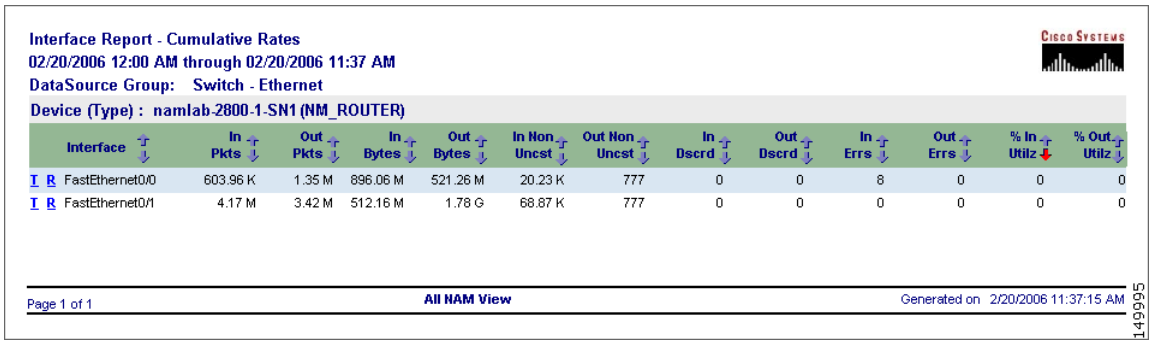

Table B-11 describes the fields in the Interface Statistics Report.

Table B-11 Interface Statistics Report Field Descriptions

Field	Description
Interface	Interface number.
In Packets	Number of incoming packets.
Out Packets	Number of outgoing packets.
In Bytes	Number of incoming bytes.
Out Bytes	Number of outgoing bytes.
In Non-Unicast	Number of incoming non-unicast bytes.
Out Non-Unicast	Number of outgoing non-unicast bytes.
In Discard	Number of discards for incoming traffic.
Out Discard	Number of discards for outgoing traffic.
In Errors	Number of errors for incoming traffic.
Out Errors	Number of errors for outgoing traffic.
% In Utilz	Percentage incoming link utilization.
% Out Utilz	Percentage outgoing link utilization.

Ethernet Traffic Report

For switches and routers that support the mini-RMON MIB, the Ethernet Traffic Report (Figure B-15) displays traffic by NAM and the Data Source Group assigned in Cisco PVM.

Figure B-15 Sample Ethernet Traffic Report

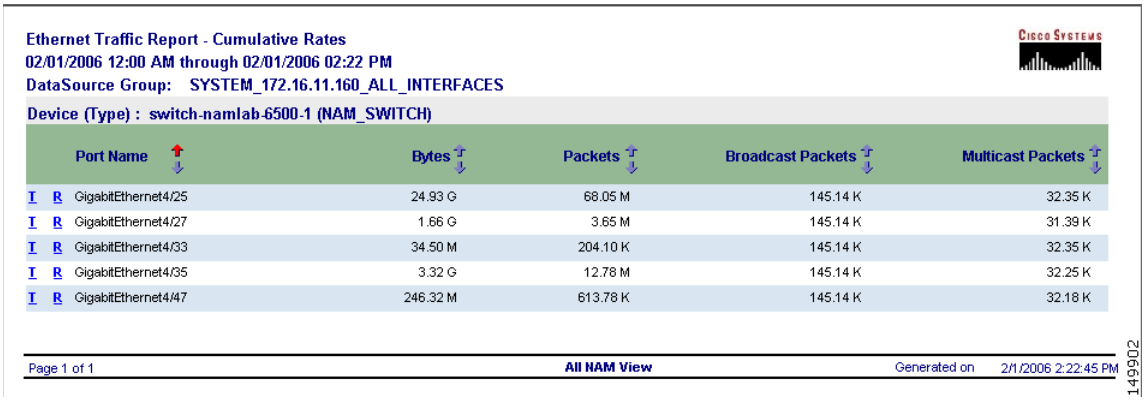

Table B-12 describes the fields in the Ethernet Traffic Statistics Report.

Table B-12 Ethernet Traffic Statistics Report Field Descriptions

Field	Description
Data Source Group Name	Name of the user-defined grouping of data sources.
NAM	Name of the related NAM.
Port Name	Port number.

Table B-12 Ethernet Traffic Statistics Report Field Descriptions (continued)

Field	Description
Bytes	Number of bytes collected over the last time interval.
Packets	Number of packets collected over the last time interval.
Broadcast Packets	Number of broadcast packets collected over the last time interval.
Multicast Packets	Number of multicast packets collected over the last time interval.

Ethernet Error Report

For switches and routers that support the mini-RMON MIB, the Ethernet Error Report (Figure B-16) displays detailed errors by NAM and the Data Source Group assigned in Cisco PVM.

Figure B-16 Sample Ethernet Error Report

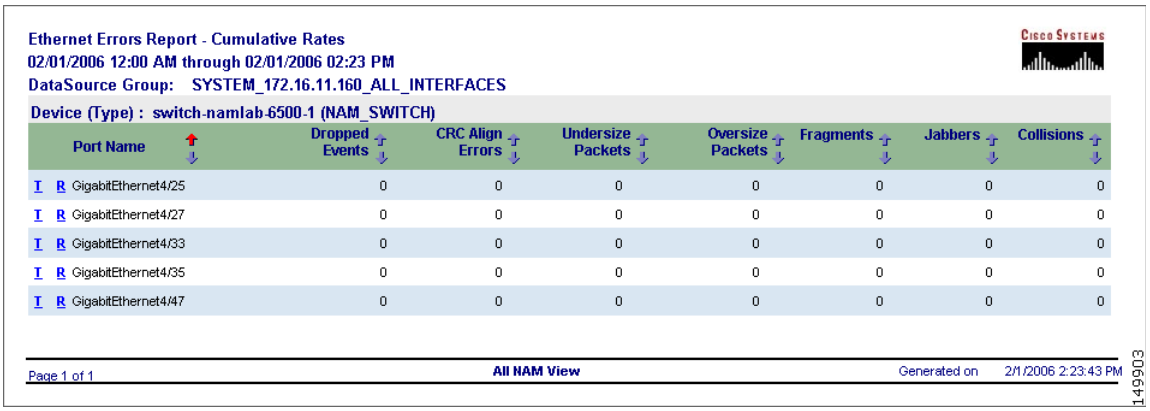

Table B-13 describes the fields in the Ethernet Error Report.

Table B-13 Ethernet Error Report Field Descriptions

Field	Description
Data Source Group Name	Name of the user-defined grouping of data sources.
NAM	Name of the related NAM.
Port Name	Port number.
Dropped Events	Number of dropped events.
CRC Align Errors	Number of CRC errors.
Undersize Packets	Number of undersize packets.
Oversize Packets	Number of oversize packets.
Fragments	Number of fragments.
Jabbers	Number of jabbers.
Collisions	Number of collisions.

VLANs

The VLANs suite displays detailed information on data collected for each VLAN ID and VLAN Priority. The VLANs suite contains the following reports:

- VLAN ID Report, page B-19
- VLAN Priority Report, page B-19

VLAN ID Report

The VLAN ID Report (Figure B-17) details traffic collected per second over the last time interval by VLAN identifier.

Figure B-17 Sample VLAN ID Report

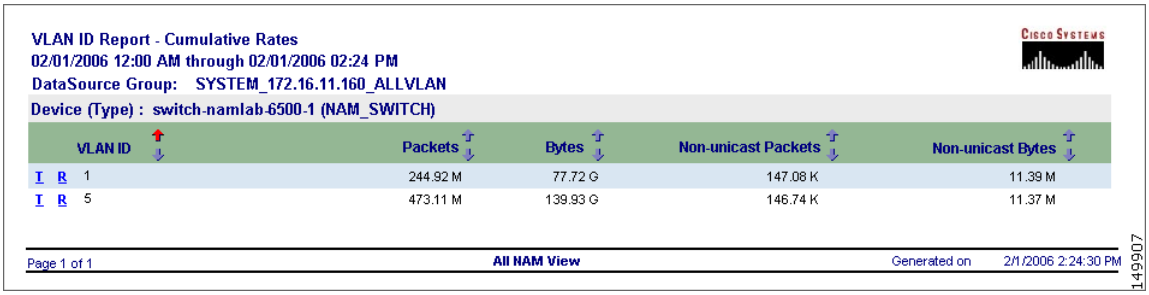

Table B-14 describes the fields in the VLAN ID Report.

Table B-14 VLAN ID Report Field Descriptions

Field	Description
Packets	Number of packets collected per second over the last time interval.
Bytes	Number of bytes collected per second over the last time interval.
Non-Unicast Packets	Number of non-unicast packets collected per second over the last time interval
Non-Unicast Bytes	Number of non-unicast bytes collected per second over the last time interval
VLAN ID	VLAN identifier

VLAN Priority Report

The VLAN Priority Report (Figure B-18) displays detailed information on the traffic by VLAN Priority ID number.

Figure B-18 Sample VLAN Priority Report

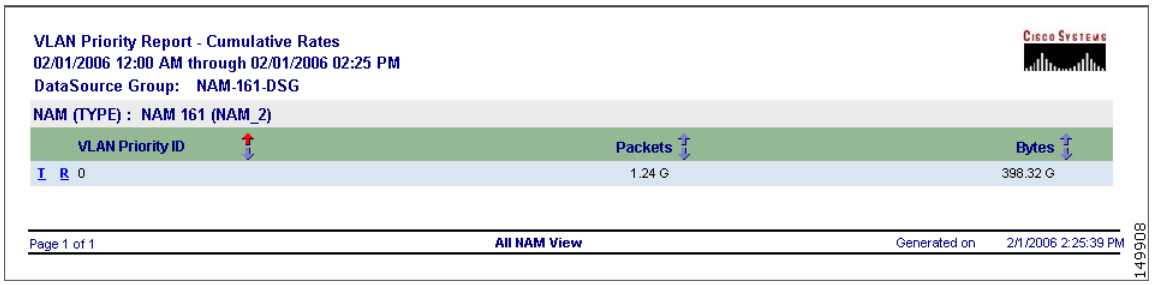

Table B-15 describes the fields in the VLAN Priority Report.

Table B-15 VLAN Priority Report Field Descriptions

Field	Description
VLAN Priority ID	VLAN Priority ID number.
Packets	Number of packets collected per second over the last time interval.
Bytes	Number of bytes collected per second over the last time interval.