show ip mds forwarding through show monitor event-trace merged-list

show ip traffic

To display the global or system-wide IP traffic statistics for one or more interfaces, use the **show ip traffic** command in user EXEC or privileged EXEC mode.

show ip traffic [**interface** *type number*]

Syntax Description

interface *type number*	(Optional) Displays the global or system-wide IP traffic statistics for a specific interface. If the **interface** keyword is used, the *type* and *number* arguments are required.

Command Default

Using the **show ip traffic**command with no keywords or arguments displays the global or system-wide IP traffic statistics for all interfaces.

Command Modes

User EXEC (>) Privileged EXEC (#)

Command History

Release	Modification
10.0	This command was introduced.
12.2	The output was enhanced to display the number of keepalive, open, update, route-refresh request, and notification messages received and sent by a Border Gateway Protocol (BGP) routing process.
12.2(25)S	The command output was modified.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB and implemented on the Cisco 10000 series routers.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SXH	This command was integrated into Cisco IOS Release 12.2(33)SXH.
12.4(20)T	This command was integrated into Cisco IOS Release 12.4(20)T.
12.2(33)SXH5	This command was modified. The output was changed to display the ARP (proxy) reply counter as the number of ARP replies for real proxies only.
Cisco IOS XE Release 3.1S	This command was integrated into Cisco IOS XE Release 3.1S. This command was modified to include the optional **interface** keyword and associated *type* and *number* arguments. These modifications were made to provide support for the IPv4 MIBs as described in RFC 4293: *Management Information Base for the Internet Protocol (IP)* .

Release	Modification
15.1(4)M	This command was modified. The optional **interface** keyword and associated *type* and *number* arguments were added. These modifications were made to provide support for the IPv4 MIBs as described in RFC 4293, *Management Information Base for the Internet Protocol (IP)* .

Usage Guidelines

Using the **show ip traffic**command with the optional **interface** keyword displays the ipIfStatsTable counters for the specified interface if IPv4 addressing is enabled.

Examples

The following is sample output from the **show ip traffic** command:

```
Router# show ip traffic
IP statistics:
  Rcvd:  27 total, 27 local destination
         0 format errors, 0 checksum errors, 0 bad hop count
         0 unknown protocol, 0 not a gateway
         0 security failures, 0 bad options, 0 with options
  Opts:  0 end, 0 nop, 0 basic security, 0 loose source route
         0 timestamp, 0 extended security, 0 record route
         0 stream ID, 0 strict source route, 0 alert, 0 cipso, 0 ump
         0 other
  Frags: 0 reassembled, 0 timeouts, 0 couldn't reassemble
         0 fragmented, 0 couldn't fragment
  Bcast: 27 received, 0 sent
  Mcast: 0 received, 0 sent
  Sent:  0 generated, 0 forwarded
  Drop:  0 encapsulation failed, 0 unresolved, 0 no adjacency
         0 no route, 0 unicast RPF, 0 forced drop
  Drop:  0 packets with source IP address zero
ICMP statistics:
  Rcvd: 0 format errors, 0 checksum errors, 0 redirects, 0 unreachable
        0 echo, 0 echo reply, 0 mask requests, 0 mask replies, 0 quench
        0 parameter, 0 timestamp, 0 info request, 0 other
        0 irdp solicitations, 0 irdp advertisements
        0 time exceeded, 0 timestamp replies, 0 info replies
  Sent: 0 redirects, 0 unreachable, 0 echo, 0 echo reply
        0 mask requests, 0 mask replies, 0 quench, 0 timestamp
        0 info reply, 0 time exceeded, 0 parameter problem
        0 irdp solicitations, 0 irdp advertisements
BGP statistics:
  Rcvd: 0 total, 0 opens, 0 notifications, 0 updates
        0 keepalives, 0 route-refresh, 0 unrecognized
  Sent: 0 total, 0 opens, 0 notifications, 0 updates
        0 keepalives, 0 route-refresh
EIGRP-IPv4 statistics:
  Rcvd: 0 total
  Sent: 0 total
TCP statistics:
  Rcvd: 0 total, 0 checksum errors, 0 no port
  Sent: 0 total
PIMv2 statistics: Sent/Received
  Total: 0/0, 0 checksum errors, 0 format errors
  Registers: 0/0 (0 non-rp, 0 non-sm-group), Register Stops: 0/0,  Hellos: 0/0
  Join/Prunes: 0/0, Asserts: 0/0, grafts: 0/0
  Bootstraps: 0/0, Candidate_RP_Advertisements: 0/0
  State-Refresh: 0/0
IGMP statistics: Sent/Received
  Total: 0/0, Format errors: 0/0, Checksum errors: 0/0
  Host Queries: 0/0, Host Reports: 0/0, Host Leaves: 0/0
  DVMRP: 0/0, PIM: 0/0
UDP statistics:
  Rcvd: 185515 total, 0 checksum errors, 185515 no port
```

```
  Sent: 0 total, 0 forwarded broadcasts
OSPF statistics:
  Rcvd: 0 total, 0 checksum errors
        0 hello, 0 database desc, 0 link state req
        0 link state updates, 0 link state acks
  Sent: 0 total
        0 hello, 0 database desc, 0 link state req
        0 link state updates, 0 link state acks
Probe statistics:
  Rcvd: 0 address requests, 0 address replies
        0 proxy name requests, 0 where-is requests, 0 other
  Sent: 0 address requests, 0 address replies (0 proxy)
        0 proxy name replies, 0 where-is replies
ARP statistics:
  Rcvd: 1477 requests, 8841 replies, 396 reverse, 0 other
  Sent: 1 requests, 20 replies (0 proxy), 0 reverse
  Drop due to input queue full: 0
```

The following is sample output from the **show ip traffic** command for Ethernet interface 0/0:

```
Router# show ip traffic interface ethernet 0/0
Ethernet0/0 IP-IF statistics :
  Rcvd:  99 total, 9900 total_bytes
         0 format errors, 0 hop count exceeded
         0 bad header, 0 no route
         0 bad destination, 0 not a router
         0 no protocol, 0 truncated
         0 forwarded
         0 fragments, 0 total reassembled
         0 reassembly timeouts, 0 reassembly failures
         0 discards, 99 delivers
  Sent:  99 total, 9900 total_bytes 0 discards
         99 generated, 0 forwarded
         0 fragmented into, 0 fragments, 0 failed
  Mcast: 0 received, 0 received bytes
         0 sent, 0 sent bytes
  Bcast: 0 received, 0 sent
```

Examples

The following is sample output from the **show ip traffic** command when used on a Cisco 10000 series router:

```
Router# show ip traffic
IP statistics:
  Rcvd:  27 total, 27 local destination
         0 format errors, 0 checksum errors, 0 bad hop count
         0 unknown protocol, 0 not a gateway
         0 security failures, 0 bad options, 0 with options
  Opts:  0 end, 0 nop, 0 basic security, 0 loose source route
         0 timestamp, 0 extended security, 0 record route
         0 stream ID, 0 strict source route, 0 alert, 0 cipso, 0 ump
         0 other
  Frags: 0 reassembled, 0 timeouts, 0 couldn't reassemble
         0 fragmented, 0 couldn't fragment
  Bcast: 27 received, 0 sent
  Mcast: 0 received, 0 sent
  Sent:  0 generated, 0 forwarded
  Drop:  0 encapsulation failed, 0 unresolved, 0 no adjacency
         0 no route, 0 unicast RPF, 0 forced drop
         0 options denied, 0 source IP address zero
```

The table below describes the significant fields shown in the display.

Table 1: show ip traffic Field Descriptions

Field	Description
format errors	Indicates a gross error in the packet format, such as an impossible Internet header length.

Field	Description
bad hop count	Occurs when a packet is discarded because its time-to-live (TTL) field was decremented to zero.
encapsulation failed	Usually indicates that the router had no ARP request entry and therefore did not send a datagram.
no route	Counted when the Cisco IOS software discards a datagram that it did not know how to route.

Related Commands

Command	Description
clear ip traffic	Clears the global or system-wide IP traffic statistics for one or more interfaces.