

Chapter 18

Fast Ethernet Interfaces Monitoring and Troubleshooting

This chapter summarizes the command-line interface (CLI) commands you can use to monitor and troubleshoot Fast Ethernet interfaces.

show interfaces (for Fast Ethernet Interfaces)

Syntax	<pre>show interfaces fe-fpc/pic/port <brief detail extensive> <interface-name destination-class destination-class-name> <interface-name source-class source-class-name> show interfaces fe-fpc/pic/port <brief detail extensive> <media> show interfaces fe-fpc/pic/port <brief detail extensive> <statistics></pre>
Description	Display status information about Fast Ethernet router interfaces.
Options	<p>none—Display information about all interfaces.</p> <p>brief—(Optional) Display brief interface information.</p> <p>detail—(Optional) Display detailed interface information.</p> <p>extensive—(Optional) Display very detailed interface information.</p> <p>destination-class <i>destination-class-name</i>—(Optional) Name of a logical grouping of prefixes that count packets having the destination address matching those prefixes. Whenever a destination class is specified, you must also specify a particular logical interface, not all interfaces.</p> <p><i>fe-fpc/pic/port</i>—Name of an interface.</p> <p>media—(Optional) Display media-specific information about network interfaces.</p> <p>source-class <i>source-class-name</i>—(Optional) Name of a logical grouping of prefixes that count packets having the source address matching those prefixes. Whenever a source class is specified, you must also specify a particular logical interface, not all interfaces.</p> <p>statistics—(Optional) Display static interface statistics.</p>
Required Privilege Level	view

- **Sample Output** show interfaces (standard) (for Fast Ethernet interfaces) on page 342
- show interfaces brief (for Fast Ethernet interfaces) on page 342
- show interfaces detail (for Fast Ethernet interfaces) on page 343
- show interfaces extensive (for Fast Ethernet interfaces) on page 344
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- show interfaces statistics (for Fast Ethernet interfaces) on page 346

Output Fields at a Glance Table 35 summarizes which information is included in the output fields of each show interfaces command option for Fast Ethernet interfaces. In this table, output fields are listed in alphabetical order. In Table 36, the output fields are listed in more detail in the order in which they are displayed.

Table 35: Fast Ethernet Show Interfaces Output Field Summary

Options	Field Description
Physical Interface	
Extensive	ANSI LMI settings—Settings for link management can be either ANSI LMI settings or ITU LMI settings. ANSI LMI settings is the default. The format is ANSI LMI settings: <i>value, value... xx</i> seconds
Standard Detail Extensive	Active alarms and Active defects—Ethernet-specific defects that can render the interface unable to pass packets.
Extensive	Autonegotiation information—Information about link autonegotiation.
Extensive	Bucket Drops—Drops due to traffic load exceeding the interface transmit/receive leaky bucket configuration. The default is off.
Standard Detail Extensive	Current address—Configured MAC address.
Detail Extensive	Destination class—List of the names of destination class usage (DCU) counters per family and per class for this interface. The counters display Packets and Bytes going to designated user-selected prefixes.
All	Device Flags—Information about the physical device.
Extensive	Drops—Number of packets dropped by the output queue of the I/O Manager ASIC. If the interface is saturated, this number increments once for every packet that is dropped by the ASIC's RED mechanism.
All	Enabled—State of the interface.
Standard Detail Extensive	Encapsulation—Encapsulation being used on the physical interface.
Extensive	Filter Statistics—Statistics reported by the PIC's filter subsystem.
All	Flow control—Whether flow control is enabled.
Extensive	Framing errors—Sum of AAL5 packets that have FCS errors, AAL5 packets that have reassembly timeout errors, and AAL5 packets that have length errors.
Extensive	Giants—Frames received that are larger than the giant threshold.
Extensive	Hardware address—Hardware MAC address.
Detail Extensive	Hold-times—Current interface hold-time up and hold-time down, in milliseconds.
Extensive	ITU LMI settings—Settings for link management can be either ANSI LMI settings or ITU LMI settings. ANSI LMI settings is the default. The format is ITU LMI settings: <i>value, value... xx</i> seconds
All	Ingress Rate Limit—Configured ingress limit. It can be from 1 to 1000 Mbps.
Extensive	Input errors—Input errors on the interface.
Standard	Input rate, Output rate—Rate of bits and packets received and transmitted on the interface.
All	Interface Flags—Information about the interface.
Extensive	LMI Statistics—Statistics about link management, including a count of packets sent and received, and the time of the last activity.
All	Last flapped—Date, time, and how long ago the interface went from down to up.
All	Link flags—Information about the link.

Options	Field Description
All	Link-level type—Encapsulation being used on the physical interface.
All	Loopback—Whether loopback is enabled and the type of loopback (either local or remote).
Extensive	MAC Statistics—Statistics reported by the PIC's MAC subsystem.
All	Minimum links needed—(For aggregate Ethernet only) Number of child links that must be operational for the aggregate interface to be operational.
All	MTU—MTU size on the physical interface.
Extensive	Output errors—Output errors on the interface.
Extensive	PFE configuration—Information about how the Packet Forwarding Engine is configured.
All	Physical interface and Index—Name of the physical interface and the physical interface's index number, which reflects its initialization sequence.
Extensive	Runts—Frames received that are smaller than the runt threshold.
All	Source filtering—Whether source filter is configured.
All	Speed—Speed at which the interface is running.
Detail Extensive	Statistics last cleared—Time when the statistics for the interface were last zeroed.
Detail Extensive	Traffic statistics—Number of packets and bytes received and transmitted on the physical interface.
Logical Interface	
All	Addresses—Addresses associated with the logical interface.
All	Broadcast—Broadcast address.
All	Destination—IP address of the remote side of the connection.
All	Family Flags—Information about the protocol family flags.
Detail Extensive	Filters—Name of the firewall filters to be evaluated when packets are received or transmitted on the interface.
All	Local—IP address of the logical interface.
All	Logical interface and Index—Name of the logical interface and the logical interface's index number, which reflects its initialization sequence.
All	Logical Interface Flags—Information about the logical interface.
All	MTU—MTU size on the logical interface.
Detail Extensive	Policer—Policers to be evaluated when packets are received or transmitted on the interface.
All	Protocol—Protocol running on the logical interface.
Detail Extensive	RPF Failures: Packets: xx, Bytes: yy—The amount of incoming traffic (in packets and bytes) that failed a unicast Reverse Path Forwarding (RPF) check on this interface.
Detail Extensive	Source class—List of the names of source class usage (SCU) counters per family and per class for this interface. The counters display Packets and Bytes arriving from designated user-selected prefixes.
All	Statistics—(For aggregate Ethernet only) Information about the number of packets, packets per second, number of bytes and bytes per second on this aggregate interface.

Table 36: Fast Ethernet Show Interfaces Output Field Summary in Order of Appearance

Output Field	Output Field Description
Physical Interface	
Physical interface	Name of the physical interface.
Enabled	State of the interface. Possible values are described in "Enabled Field" on page 190.
Interface index	Physical interface's index number, which reflects its initialization sequence.
SNMP ifIndex	SNMP index number for the interface.
Generation	A unique number for use by Juniper Networks Customer Support only.
Link-level type	Encapsulation being used on the physical interface.
MTU	MTU size on the physical interface.
Source filtering	Whether source filter is configured.
Speed	Speed at which the interface is running.
Loopback	Whether loopback is enabled and the type of loopback (either local or remote).
Flow control	Whether flow control is enabled.
Ingress Rate Limit	Performs port-based rate-limiting to the ingress traffic at the PIC. This value may vary from 1 to 100 Mbps. This feature is only supported for 12- and 48-port Fast Ethernet PICs.
Minimum links needed	(For aggregate Ethernet only) Number of child links that must be operational for the aggregate interface to be operational.
Device flags	Information about the physical device. Possible values are described in "Device Flags Field" on page 190.
Interface flags	Information about the interface.
Link flags	Information about the link. Possible values are described in "Link Flags Field" on page 191.
LMI settings	(Extensive output only) Settings for link management can be either ANSI LMI settings or ITU LMI settings. ANSI LMI settings is the default. The format is (ANSI or ITU) LMI settings: <i>value, value... xx</i> seconds, where <i>value</i> can be: n391dte—DTE full status polling interval (1..255) n392dce—DCE error threshold (1..10) n392dte—DTE error threshold (1..10) n393dce—DCE monitored event count (1..10) n393dte—DTE monitored event count (1..10) t391dte—DTE polling timer (5..30 seconds) t392dce—DCE polling verification timer (5..30 seconds)
LMI Statistics	(Extensive output only) Statistics about the link management. Input—Number of packets coming in on the interface (<i>nn</i>) and how much time has passed since the last packet arrived. The format is Input: <i>nn</i> (last seen <i>hh:mm:ss</i> ago). Output—Number of packets sent out on the interface (<i>nn</i>) and how much time has passed since the last packet was sent. The format is Output: <i>nn</i> (last sent <i>hh:mm:ss</i> ago).
Hold-times	Current interface hold-time up and hold-time down, in milliseconds.
LCP state	Specific PPP bits. Opened indicates that they have been initialized and opened, which means that the link is healthy.
NCP state	Specific PPP bits. Opened indicates that they have been initialized and opened, which means that the link is healthy.
Current address	Configured MAC address.
Hardware address	(Extensive output only) Hardware MAC address.
Statistics last cleared	Time when the statistics for the interface were last zeroed.
Last Flapped	Date, time, and how long ago the interface went from down to up. The format is Last flapped : <i>year-month-day hour:minute:second</i> timezone (hour:minute:second ago). For example, Last flapped : 2002-04-26 10:52:40 PDT (04:33:20 ago).
Traffic statistics	Number and rate of bytes and packets received and transmitted on the physical interface. Input bytes, Output bytes—Number of bytes received and transmitted on the interface. Input packets, Output packets—Number of packets received and transmitted on the interface.

Output Field	Output Field Description
Input rate, Output rate	(Standard output only) Rate of bits (in bbs) and packets (in pps) received and transmitted on the interface.
Input errors	<p>(Extensive output only) Input errors on the interface. The following paragraphs explain the nonobvious counters:</p> <p>Errors—Sum of the incoming frame aborts and FCS errors.</p> <p>Drops—Number of packets dropped by the output queue of the I/O Manager ASIC. If the interface is saturated, this number increments once for every packet that is dropped by the ASIC's RED mechanism.</p> <p>Invalid VCs—Number of cells that arrived for a nonexistent VC.</p> <p>Framing errors—Sum of AAL5 packets that have FCS errors, AAL5 packets that have reassembly timeout errors, and AAL5 packets that have length errors.</p> <p>Bucket Drops—Drops due to traffic load exceeding the interface transmit/receive leaky bucket configuration. The default is off.</p> <p>Giants—Frames received that are larger than the giant threshold.</p> <p>Runts—Frames received that are smaller than the runt threshold.</p> <p>Policed discards—Frames that the incoming packet match code discarded because they were not recognized or of interest. Usually, this field reports protocols that the JUNOS software does not handle, such as CDP.</p> <p>L3 incompletes—Increments when the incoming packet fails Layer 3 (usually IPv4) sanity checks of the header. For example, a frame with less than 20 bytes of available IP header would be discarded and this counter would increment.</p> <p>L2 channel errors—This counter increments when the software could not find a valid logical interface for an incoming frame.</p> <p>L2 mismatch timeouts—Count of malformed or short packets that cause the incoming packet handler to discard the frame as unreadable.</p> <p>SRAM errors—This counter increments when a hardware error has occurred in the SRAM on the PIC. The value in this field should always be 0. If it increments, the PIC is broken.</p> <p>HS link FCS errors—Number of errors on the high-speed links between the ASICs responsible for handling the router interfaces.</p> <p>FIFO errors—Number of FIFO errors in the receive direction as reported by the ASIC on the PIC. If this value is ever nonzero, the PIC is probably broken.</p>
Output errors	<p>(Extensive output only) Output errors on the interface. The following paragraphs explain the nonobvious counters:</p> <p>Carrier transitions—Number of times the interface has gone from down to up. This number should not increment quickly, increasing only when the cable is unplugged, the far-end system is powered down and up, or a similar problem occurs. If it increments quickly (perhaps once every 10 seconds), then either the cable, the far-end system, or the PIC is broken.</p> <p>Errors—Sum of the outgoing frame aborts and FCS errors.</p> <p>Drops—Number of packets dropped by the output queue of the I/O Manager ASIC. If the interface is saturated, this number increments once for every packet that is dropped by the ASIC's RED mechanism.</p> <p>Aged packets—Number of packets that remained in shared packet SDRAM for so long that the system automatically purged them. The value in this field should never increment. If it does, it is most likely a software bug or possibly broken hardware.</p> <p>HS link FCS errors—Number of errors on the high-speed links between the ASICs responsible for handling the router interfaces.</p> <p>FIFO errors—Number of FIFO errors in the receive direction as reported by the ASIC on the PIC. If this value is ever nonzero, the PIC is probably broken.</p>
Active alarms and Active defects	Ethernet-specific defects that can render the interface unable to pass packets. When a defect persists for a certain amount of time, it is promoted to an alarm. Based on the router configuration, an alarm can ring the red or yellow alarm bell on the router, or the turn on the red or yellow alarm LED on the craft interface. These fields can contain the value None or Link. Link means that the interface has lost its link state, which usually means that the cable is unplugged, the far-end system has been turned off, or the PIC is broken.
MAC statistics	(Extensive output only) Statistics reported by the PIC's MAC subsystem.

Output Field	Output Field Description
Filter Statistics	<p>(Extensive output only) Statistics reported by the PIC's MAC address filter subsystem. The filtering is done by the content-addressable memory (CAM) on the PIC. The filter examines a packet's source and destination MAC addresses to determine whether the packet should enter the system or be rejected.</p> <p>Input packet count—Number of packets received from the MAC hardware that the filter processed.</p> <p>Input packet rejects—Number of packets that the filter rejected because of either the source MAC address or the destination MAC address.</p> <p>Input DA rejects—Number of packets that the filter rejected because the destination MAC address of the packet is not on the accept list. It is normal for this value to increment. When it increments very quickly and no traffic is entering the router from the far-end system, either there is a bad ARP entry on the far-end system, or multicast routing is not on and the far-end system is sending many multicast packets to the local router (which the router is rejecting).</p> <p>Input SA rejects—Number of packets that the filter rejected because the source MAC address of the packet is not on the "accept" list. The value in this field should increment only if source MAC address filtering has been enabled. If filtering is enabled, if the value increments quickly, and if the system is not receiving traffic that it should from the far-end system, it means that the user-configured source MAC addresses for this interface are incorrect.</p> <p>Output packet count—Number of packets that the filter has given to the MAC hardware.</p> <p>Output packet pad count—Number of packets the filter padded to the minimum Ethernet size (60 bytes) before giving the packet to the MAC hardware. Usually, padding is done only on small ARP packets, but some very small IP packets can also require padding. If this value increments rapidly, either the system is trying to find an ARP entry for a far-end system that does not exist or it is misconfigured.</p> <p>Output packet error count—Number of packets with an indicated error that the filter was given to transmit. These packets are usually aged packets or are the result of a bandwidth problem on the FPC hardware. On a normal system, the value of this field should not increment.</p> <p>CAM destination filters, CAM source filters—Number of entries in the CAM dedicated to destination and source MAC address filters. There can only be up to 64 source entries. If source filtering is disabled, which is the default, the values for these fields should be 0.</p>
Autonegotiation information	<p>(Extensive output only) Information about link autonegotiation.</p>
Packet Forwarding Engine configuration	<p>(Extensive output only) Information about the configuration of the Packet Forwarding Engine:</p> <p>Destination slot—FPC slot number.</p> <p>PLP byte</p> <p>Stream number—Stream used by the ASIC on the FPC.</p> <p>CoS transmit queue—The queue number and its associated user-configured forwarding class name.</p> <p>Bandwidth %—Percentage of bandwidth allocated to the queue.</p> <p>Bandwidth bps—Bandwidth allocated to the queue (in bps).</p> <p>Buffer %—Percentage of buffer space allocated to the queue.</p> <p>Buffer Bytes—Number of bytes allocated to the queue. This value is only nonzero if the buffer size is configured in terms of time.</p> <p>Priority—Queue priority. Possible values are low and high.</p> <p>Limit—Displayed if rate limiting is configured for the queue. Possible values are none and exact. If exact is configured, the queue will only transmit up to the configured bandwidth, even if there is excess bandwidth available. If none is configured, the queue will transmit beyond the configured bandwidth if there is bandwidth available.</p>

Output Field	Output Field Description
Logical Interface	
Logical interface, Index, SNMP ifIndex	Name of the logical interface, the logical interface's index number (which reflects its initialization sequence), and the logical interface's SNMP interface index number.
Flags	Information about the logical interface. Possible values are described in "Logical Interface Flags Field" on page 192.
Statistics	(For aggregate Ethernet only) Information about the number of packets, packets per second, number of bytes, and bytes per second on this aggregate interface. Bundle—Information about input and output bundles. Link—Information about specific links in the aggregate. Marker Statistics—Information about 802.3ad marker protocol statistics on the specified links. Marker Rx—Marker PDUs received. The number of valid marker PDUs received on this aggregation port. Resp Tx—Marker response PDUs transmitted. The number of marker response PDUs transmitted on this aggregation port. Unknown Rx—Unknown received. The number of frames received that either carry the slow protocols Ethernet type value (43B.4), but contain an unknown PDU, or are addressed to the slow protocols group MAC address (43B.3), but do not carry the slow protocols Ethernet type. Illegal Rx—Illegal received. The number of frames received that carry the slow protocols Ethernet type value (43B.4), but contain a badly formed PDU or an illegal value of protocol subtype (43B.4). Addresses—Addresses associated with the logical interface.
Protocol	Protocol running on the logical interface, such as iso, inet6, mpls.
MTU	MTU size on the logical interface.
Encapsulation	Encapsulation on the logical interface.
Traffic statistics	Total number of bytes and packets received and transmitted on the logical interface. These statistics are the sum of the local and transit statistics. When a burst of traffic is received, the value in the output packet rate field might briefly exceed the peak cell rate. It takes a while (generally, less than 1 second) for this counter to stabilize. Input rate—Rate of bits and packets received on the interface. Output rate—Rate of bits and packets transmitted on the interface.
Local statistics	Statistics for traffic received from and transmitted to the Routing Engine. When a burst of traffic is received, the value in the output packet rate field might briefly exceed the peak cell rate. It takes a while (generally, less than 1 second) for this counter to stabilize.
Transit statistics	Statistics for traffic transiting the router. When a burst of traffic is received, the value in the output packet rate field might briefly exceed the peak cell rate. It takes a while (generally, less than 1 second) for this counter to stabilize.
Flags	Information about the protocol family flags. Possible values are described in "Family Flags Field" on page 192.
Generation	A unique number for use by Juniper Networks Customer Support only.
Route table	The address is located in this route table. For example, Route table:0 refers to inet.0.
Filters	Name of the firewall filters to be evaluated when packets are received or transmitted on the interface. The format is Filters: Input: <i>input-filter-name</i> , Output: <i>output-filter-name</i> .
RPF Failures: Packets: xx, Bytes: yy	The amount of incoming traffic (in packets and bytes) that failed a unicast Reverse Path Forwarding (RPF) check on this interface.
Destination class	List of the names of destination class usage (DCU) counters per family and per class for this interface. The counters display Packets and Bytes going to designated user-selected prefixes.
Source class	List of the names of source class usage (SCU) counters per family and per class for this interface. The counters display Packets and Bytes arriving from designated user-selected prefixes.
Policer	Policers to be evaluated when packets are received or transmitted on the interface. The format is Policer: Input: <i>type-fpc/pic/port-in-policer</i> , Output: <i>type-fpc/pic/port-out-policer</i> .
Addresses	Addresses associated with the logical interface.
Flags	Information about the address flags. Possible values are described in "Address Flags Field" on page 192.
Destination	IP address of the remote side of the connection.
Local	IP address of the logical interface.
Broadcast	Broadcast address.

• show interfaces (standard) (for Fast Ethernet interfaces)

```
user@host> show interfaces fe-0/3/3
Physical interface: fe-0/3/3, Enabled, Physical link is Up
  Interface index: 66, SNMP ifIndex: 22
  Link-level type: Ethernet, MTU: 1514, Speed: 100mbps, Loopback: Disabled,
  Source filtering: Disabled, Flow control: Enabled
  Device flags   : Present Running
  Interface flags: SNMP-Traps
  Current address: 00:90:69:0d:24:60, Hardware address: 00:90:69:0d:24:60
  Last flapped   : 2002-04-17 18:54:15 PDT (00:03:35 ago)
  Input rate     : 0 bps (0 pps)
  Output rate    : 0 bps (0 pps)
  Active alarms  : None
  Active defects : None

Logical interface fe-0/3/3.0 (Index 70) (SNMP ifIndex 112)
  Flags: SNMP-Traps Encapsulation: ENET2
  Protocol inet, MTU: 1500, Flags: None
  Addresses, Flags: Is-Preferred Is-Primary
    Destination: 10.54.33/24, Local: 10.54.33.1, Broadcast: 10.54.33.255
```

• show interfaces brief (for Fast Ethernet interfaces)

```
user@host> show interfaces brief fe-0/3/0
Physical interface: fe-0/3/0, Enabled, Physical link is Up
  Link-level type: Ethernet, MTU: 1514, Speed: 100mbps, Loopback: Disabled,
  Source filtering: Disabled, Flow control: Enabled
  Device flags   : Present Running
  Interface flags: SNMP-Traps

Logical interface fe-0/3/0.0
  Flags: SNMP-Traps VLAN 200 Encapsulation: ENET2
  aenet
```

show interfaces detail (for Fast Ethernet interfaces)

```

user@host> show interfaces detail fe-0/3/0
Physical interface: fe-0/3/0, Enabled, Physical link is Up
Interface index: 63, SNMP ifIndex: 19, Generation: 62
Link-level type: Ethernet, MTU: 1514, Speed: 100Mbps, Loopback: Disabled,
Source filtering: Disabled, Flow control: Enabled
Device flags   : Present Running
Interface flags: SNMP-Traps
Hold-times     : Up 0 ms, Down 0 ms
Current address: 00:90:69:0d:27:f2, Hardware address: 00:90:69:0d:24:5d
Last flapped   : 2002-04-17 18:54:15 PDT (00:05:47 ago)
Statistics last cleared: Never
Traffic statistics:
  Input bytes   :                84                0 bps
  Output bytes  :                 0                0 bps
  Input packets :                 3                0 pps
  Output packets:                 0                0 pps
Active alarms  : None
Active defects : None

Logical interface fe-0/3/0.0 (Index 67) (SNMP ifIndex 60) (Generation 66)
Flags: SNMP-Traps VLAN 200 Encapsulation: ENET2
Traffic statistics:
  Input bytes   :                84                0 bps
  Output bytes  :                 0                0 bps
  Input packets :                 3                0 pps
  Output packets:                 0                0 pps
Local statistics:
  Input bytes   :                 0                0 bps
  Output bytes  :                 0                0 bps
  Input packets :                 0                0 pps
  Output packets:                 0                0 pps
Transit statistics:
  Input bytes   :                84                0 bps
  Output bytes  :                 0                0 bps
  Input packets :                 3                0 pps
  Output packets:                 0                0 pps
Protocol aenet, AE bundle: ae2.0, MTU: 0, Flags: Generation: 159
Route table: 0

```

show interfaces extensive (for Fast Ethernet interfaces)

```

user@host> show interfaces extensive fe-0/3/0
Physical interface: fe-0/3/0, Enabled, Physical link is Up
Interface index: 63, SNMP ifIndex: 19, Generation: 62
Link-level type: Ethernet, MTU: 1514, Speed: 100Mbps, Loopback: Disabled,
Source filtering: Disabled, Flow control: Enabled
Device flags   : Present Running
Interface flags: SNMP-Traps
Hold-times    : Up 0 ms, Down 0 ms
Current address: 00:90:69:0d:27:f2, Hardware address: 00:90:69:0d:24:5d
Last flapped  : 2002-04-17 18:54:15 PDT (00:05:47 ago)
Statistics last cleared: Never
Traffic statistics:
  Input bytes   :                84                0 bps
  Output bytes  :                 0                0 bps
  Input packets :                 3                0 pps
  Output packets:                 0                0 pps
Input errors:
  Errors: 0, Drops: 0, Framing errors: 0, Runts: 0, Policed discards: 0,
  L3 incompletes: 13, L2 channel errors: 0, L2 mismatch timeouts: 0,
  FIFO errors: 0
Output errors:
  Carrier transitions: 1, Errors: 0, Drops: 0, Collisions: 0, Aged packets: 0,
  FIFO errors: 0, HS link CRC errors: 0
Active alarms   : None
Active defects  : None
MAC statistics:
                Receive          Transmit
Total octets    1272              0
Total packets   19                0
Unicast packets 0                  0
Broadcast packets 0                0
Multicast packets 19              0
CRC/Align errors 0                  0
FIFO errors      0                  0
MAC control frames 0                0
MAC pause frames 0                  0
Oversized frames 0                  0
Jabber frames    0                  0
Fragment frames  0                  0
VLAN tagged frames 0                0
Code violations  0
Filter statistics:
  Input packet count          16
  Input packet rejects        0
  Input DA rejects            13
  Input SA rejects            0
  Output packet count         0
  Output packet pad count     0
  Output packet error count   0
  CAM destination filters: 1, CAM source filters: 0
Autonegotiation information:
  Negotiation status: Complete, Link partner status: Ok,
  Link partner: Full-duplex, Flow control: None
Packet Forwarding Engine configuration:
  Destination slot: 0
  CoS transmit queue          Bandwidth          Buffer          Priority  Limit
                                %          bps    %          bytes
  0 best-effort                0            0    0            0      low  none
  1 expedited-forwarding       0            0    0            0      low  none
  2 assured-forwarding         0            0    0            0      low  none
  3 network-control            0            0    0            0      low  none

```

```

Logical interface fe-0/3/0.0 (Index 67) (SNMP ifIndex 60) (Generation 66)
Flags: SNMP-Traps VLAN 200 Encapsulation: ENET2
Traffic statistics:
  Input bytes   :                84
  Output bytes  :                 0
  Input packets:                 3
  Output packets:                0
Local statistics:
  Input bytes   :                 0
  Output bytes  :                 0
  Input packets:                 0
  Output packets:                0
Transit statistics:
  Input bytes   :                84          0 bps
  Output bytes  :                 0          0 bps
  Input packets:                 3          0 pps
  Output packets:                0          0 pps
Protocol aenet, AE bundle: ae2.0, MTU: 0, Flags: Generation: 159
Route table: 0

```

show interfaces media (for Fast Ethernet interfaces)

```

user@host> show interfaces media fe-0/3/0
Physical interface: fe-0/3/0, Enabled, Physical link is Up
  Interface index: 63, SNMP ifIndex: 19
  Link-level type: Ethernet, MTU: 1514, Speed: 100mbps, Loopback: Disabled,
  Source filtering: Disabled, Flow control: Enabled
  Device flags   : Present Running
  Interface flags: SNMP-Traps
  Current address: 00:90:69:0d:27:f2, Hardware address: 00:90:69:0d:24:5d
  Last flapped   : 2002-04-17 18:54:15 PDT (00:05:47 ago)
  Input rate     : 0 bps (0 pps)
  Output rate    : 0 bps (0 pps)
  Active alarms  : None
  Active defects : None
  MAC statistics:
    Input bytes: 1272, Input packets: 19, Output bytes: 0, Output packets: 0
  Filter statistics:
    Filtered packets: 0, Padded packets: 0, Output packet errors: 0
  Autonegotiation information:
    Negotiation status: Complete, Link partner status: Ok,
    Link partner: Full-duplex, Flow control: None

```

• show interfaces statistics (for Fast Ethernet interfaces)

```
user@host> show interfaces statistics fe-0/3/0
Physical interface: fe-0/3/0, Enabled, Physical link is Up
  Interface index: 63, SNMP ifIndex: 19
  Link-level type: Ethernet, MTU: 1514, Speed: 100Mbps, Loopback: Disabled,
  Source filtering: Disabled, Flow control: Enabled
  Device flags   : Present Running
  Interface flags: SNMP-Traps
  Current address: 00:90:69:0d:27:f2, Hardware address: 00:90:69:0d:24:5d
  Last flapped   : 2002-04-17 18:54:15 PDT (00:05:47 ago)
  Statistics last cleared: Never
  Input rate      : 0 bps (0 pps)
  Output rate     : 0 bps (0 pps)
  Input errors: 13, Output errors: 0
  Active alarms   : None
  Active defects  : None

Logical interface fe-0/3/0.0 (Index 67) (SNMP ifIndex 60)
  Flags: SNMP-Traps VLAN 200 Encapsulation: ENET2
  Input packets : 3
  Output packets: 0
  Protocol aenet, AE bundle: ae2.0, MTU: 0, Flags:
```