

show ethernet-switching statistics mac-learning

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|---------------------------------|--|
| Syntax | show ethernet-switching statistics mac-learning |
| Release Information | Command introduced in JUNOS Release 9.4 for EX Series switches. |
| Description | Display media access control (MAC) learning statistics. |
| Options | <p>none—(Optional) Display MAC learning statistics for all interfaces.</p> <p>brief detail—(Optional) Display the specified level of output.</p> <p>interface <i>interface-name</i> —(Optional) Display MAC learning statistics for the specified interface.</p> |
| Required Privilege Level | view |
| Related Topics | <ul style="list-style-type: none">■ show ethernet-switching statistics aging■ show ethernet-switching mac-learning-log■ show ethernet-switching table■ show ethernet-switching interfaces■ Example: Setting Up Basic Bridging and a VLAN for an EX Series Switch■ Example: Setting Up Bridging with Multiple VLANs for EX Series Switches■ Example: Configure Automatic VLAN Administration Using GVRP |
| List of Sample Output | <p>show ethernet-switching statistics mac-learning on page 2</p> <p>show ethernet-switching statistics mac-learning detail on page 2</p> <p>show ethernet-switching statistics mac-learning interface ge-0/0/1 on page 3</p> |
| Output Fields | Table 1 lists the output fields for the show ethernet-switching statistics mac-learning command. Output fields are listed in the approximate order in which they appear. |

Table 1: show ethernet-switching statistics mac-learning Output Fields

| Field Name | Field Description | Level of Output |
|---------------------------------------|--|-----------------|
| Interface | Name of the interface for which statistics are being reported. | All levels |
| Learning message from local packets | MAC learning message generated due to packets coming in on the management interface. | All levels |
| Learning message from transit packets | MAC learning message generated due to packets coming in on network interfaces. | All levels |

Table 1: show ethernet-switching statistics mac-learning Output Fields (continued)

| Field Name | Field Description | Level of Output |
|-----------------------------|---|-----------------|
| Learning message with error | <p>MAC learning messages received with errors:</p> <ul style="list-style-type: none"> ■ Invalid VLAN—The VLAN of the packet does not exist. ■ Invalid MAC—The MAC address is either NULL or a multicast MAC address. ■ Security violation—The MAC address is not an allowed MAC address. ■ Interface down—The MAC address is learned on an interface that is down. ■ Incorrect membership—The MAC address is learned on an interface that is not a member of the VLAN. ■ Interface limit—The number of MAC addresses learned on the interface has exceeded the limit. ■ MAC move limit—This MAC address has moved among multiple interfaces too many times in a given interval. ■ VLAN limit—The number of MAC addresses learned on the VLAN has exceeded the limit. ■ Invalid VLAN index—The VLAN of the packet, while configured, does not yet exist in the kernel. ■ Interface not learning—The MAC address is learned on an interface that does not yet allow learning—for example, the interface is blocked. ■ No nexthop—The MAC address is learned on an interface that does not have a unicast next hop. ■ MAC learning disabled—The MAC address is learned on an interface on which MAC learning has been disabled. ■ Others—The message contains some other error. | All levels |

show ethernet-switching statistics mac-learning

```
user@switch> show ethernet-switching statistics mac-learning
```

```
Learning stats: 0 learn msg rcvd, 0 error
Interface      Local pkts      Transit pkts      Error
ge-0/0/0.0      0                0                0
ge-0/0/1.0      0                0                0
ge-0/0/2.0      0                0                0
ge-0/0/3.0      0                0                0
```

show ethernet-switching statistics mac-learning detail

```
user@switch> show ethernet-switching statistics mac-learning detail
```

```
Learning stats: 0 learn msg rcvd, 0 error

Interface: ge-0/0/0.0
Learning message from local packets: 0
Learning message from transit packets: 1
Learning message with error: 0
  Invalid VLAN: 0      Invalid MAC: 0
  Security violation: 0      Interface down: 0
  Incorrect membership: 0      Interface limit: 0
  MAC move limit: 0      VLAN limit: 0
  Invalid VLAN index: 0      Interface not learning: 0
  No nexthop: 0      MAC learning disabled: 0
  Others: 0

Interface: ge-0/0/1.0
Learning message from local packets: 0
Learning message from transit packets: 2
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|------------------------------|---|-------------------------|---|
| Learning message with error: | 0 | | |
| Invalid VLAN: | 0 | Invalid MAC: | 0 |
| Security violation: | 0 | Interface down: | 0 |
| Incorrect membership: | 0 | Interface limit: | 0 |
| MAC move limit: | 0 | VLAN limit: | 0 |
| Invalid VLAN index: | 0 | Interface not learning: | 0 |
| No nexthop: | 0 | MAC learning disabled: | 0 |
| Others: | 0 | | |

```

show ethernet-switching user@switch> show ethernet-switching statistics mac-learning interface ge-0/0/1
statistics mac-learning Interface      Local pkts      Transit pkts      Error
interface ge-0/0/1    ge-0/0/1.0      0                1                1

```

Published: 2009-07-22