

Assigning Multifield Classifiers in Firewall Filters to Specify Packet-Forwarding Behavior (CLI Procedure)

You can configure firewall filters with multifield classifiers to classify packets transiting a port, VLAN, or Layer 3 interface on an EX Series switch.

You specify multifield classifiers in a firewall filter configuration to set the forwarding class and packet loss priority (PLP) for incoming or outgoing packets. By default, the data traffic that is not classified is assigned to the **best-effort** class associated with queue 0.

You can specify any of the following default forwarding classes:

Forwarding class	Queue
best-effort	0
assured-forwarding	1
expedited-forwarding	5
network-control	7

To assign multifield classifiers in firewall filters:

1. Configure the family name and filter name for the filter at the [edit firewall] hierarchy level, for example:

```
[edit firewall]
user@switch# set family ethernet-switching
user@switch# set family ethernet-switching filter ingress-filter
```

2. Configure the terms of the filter, including the **forwarding-class** and **loss-priority** action modifiers as appropriate. When you specify a forwarding class you must also specify the packet loss priority. For example, each of the following terms examines different packet header fields and assigns an appropriate classifier and the packet loss priority:

- The term **voice-traffic** matches packets on the **voice-vlan** and assigns the forwarding class **expedited-forwarding** and packet loss priority **low**:

```
[edit firewall family ethernet-switching filter ingress-filter]
user@switch# set term voice-traffic from vlan-id voice-vlan
user@switch# set term voice-traffic then forwarding-class
expedited-forwarding
user@switch# set term voice-traffic then loss-priority low
```

- The term **data-traffic** matches packets on **employee-vlan** and assigns the forwarding class **assured-forwarding** and packet loss priority **low**:

```
[edit firewall family ethernet-switching filter ingress-filter]
user@switch# set term data-traffic from vlan-id employee-vlan
user@switch# set term data-traffic then forwarding-class assured-forwarding
user@switch# set term data-traffic then loss-priority low
```

- Because loss of network-generated packets can jeopardize proper network operation, delay is preferable to discard of packets. The following term, **network-traffic**, assigns the forwarding class **network-control** and packet loss priority **low**:

```
[edit firewall family ethernet-switching filter ingress-filter]
user@switch# set term network-traffic from precedence net-control
user@switch# set term network-traffic then forwarding-class network
user@switch# set term network-traffic then loss-priority low
```

- The last term **accept-traffic** matches any packets that did not match on any of the preceding terms and assigns the forwarding class **best-effort** and packet loss priority **low**:

```
[edit firewall family ethernet-switching filter ingress-filter]
user@switch# set term accept-traffic from precedence net-control
user@switch# set term accept-traffic then forwarding-class best-effort
user@switch# set term accept-traffic then loss-priority low
```

3. Apply the filter **ingress-filter** to a port, VLAN or Layer 3 interface. For information about applying the filter, see [Configuring Firewall Filters \(CLI Procedure\)](#).

Related Topics

- [Example: Configuring Firewall Filters for Port, VLAN, and Router Traffic on EX Series Switches](#)
- [Verifying That Firewall Filters Are Operational](#)
- [Monitoring Firewall Filter Traffic](#)
- [Defining CoS Classifiers \(CLI Procedure\)](#)
- [Defining CoS Classifiers \(J-Web Procedure\)](#)
- [Configuring Firewall Filters \(CLI Procedure\)](#)
- [Configuring Firewall Filters \(J-Web Procedure\)](#)

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