

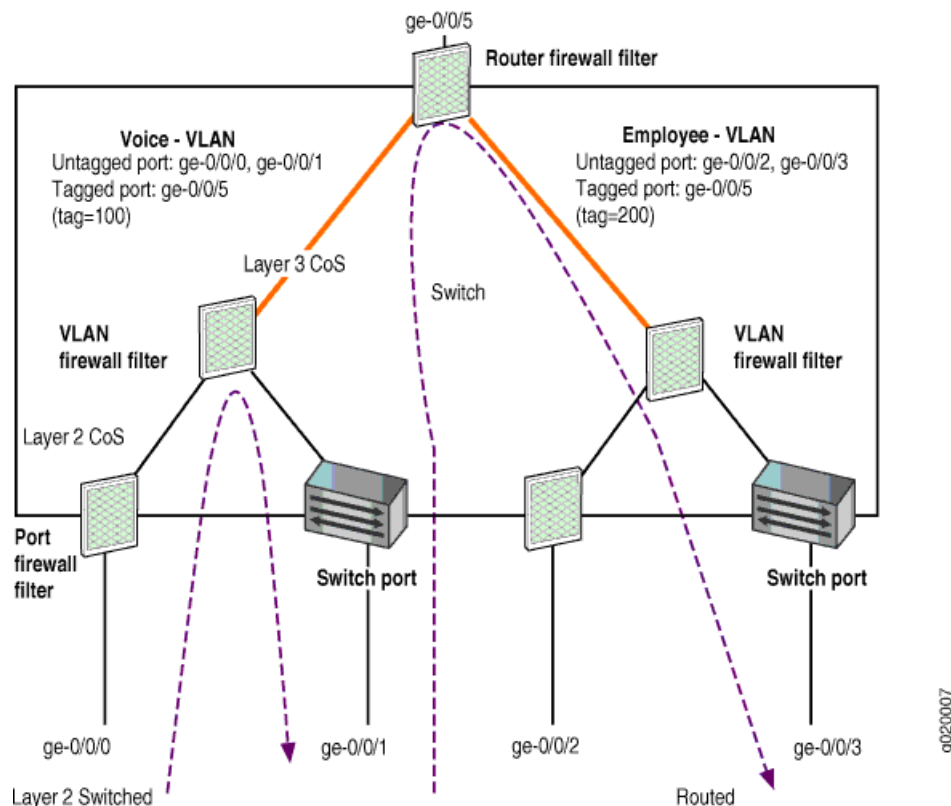
Understanding Firewall Filter Processing Points for Bridged and Routed Packets on EX Series Switches

Juniper Networks EX Series Ethernet Switches are multilayered switches that provide Layer 2 switching and Layer 3 routing. You apply firewall filters at multiple processing points in the packet forwarding path on EX Series switches. At each processing point, the action to be taken on a packet is determined based on the results of the lookup in the switch's forwarding table. A table lookup determines which exit port on the switch to use to forward the packet.

For both bridged unicast packets and routed unicast packets, firewall filters are evaluated and applied hierarchically. First, a packet is checked against the port firewall filter, if present. If the packet is permitted, it is then checked against the VLAN firewall filter, if present. If the packet is permitted, it is then checked against the router firewall filter, if present. The packet must be permitted by the router firewall filter before it is processed.

Figure 1 shows the various firewall filter processing points in the packet forwarding path in a multilayered switching platform.

Figure 1: Firewall Filter Processing Points in the Packet Forwarding Path



For a multicast packet that results in replications, an egress firewall filter is applied to each copy of the packet based on its corresponding egress VLAN.

For Layer 2 (bridged) unicast packets, the following firewall filter processing points apply:

- Ingress port firewall filter
- Ingress VLAN firewall filter
- Egress port firewall filter
- Egress VLAN firewall filter

For Layer 3 (routed and multilayer-switched) unicast packets, the following firewall filter processing points apply:

- Ingress port firewall filter
- Ingress VLAN firewall filter (Layer 2 CoS)
- Ingress router firewall filter (Layer 3 CoS)
- Egress router firewall filter
- Egress VLAN firewall filter

Related Topics

- Firewall Filters for EX Series Switches Overview
- Understanding How Firewall Filters Control Packet Flows
- Understanding Bridging and VLANs on EX Series Switches
- Example: Configuring Firewall Filters for Port, VLAN, and Router Traffic on EX Series Switches

Published: 2009-07-28