System management features

System management features in Cisco devices encompass a variety of capabilities designed to facilitate efficient configuration, monitoring, and maintenance of network systems.

Starting with Cisco NX-OS Release 10.6(1s), you can configure these security features on the Cisco N9324C-SE1U, Cisco N9348Y2C6D-SE1U switches.

- Sampled Flow (sFlow)

- Switched Port Analyzer (SPAN)

- Encapsulated Remote SPAN (ERSPAN)

- Link Layer Discovery Protocol (LLDP)

sFlow

sFlow (Sampled Flow) is a standards-based network traffic monitoring technology that enables real-time monitoring of traffic in data networks containing switches and routers.

For information on sFlow, see Configuring sFlow.

SPAN

SPAN is a network monitoring feature on Cisco devices that allows duplication of traffic from specified source ports to a designated destination port. This enables analysis of network traffic by sending a copy of the packets to an external analyzer connected to the destination port.

For information on SPAN, see Switched Port Analyzer.

ERSPAN

ERSPAN is used to transport mirrored traffic over an IP network, enabling remote monitoring of multiple switches across a network by sending traffic from source ports or VLANs on one device to destination ports or analyzers on another device.

For information on ERSPAN, see Configuring ERSPAN.

LLDP

LLDP is a vendor-neutral, one-way device discovery protocol defined by the IEEE 802.1AB standard. It enables network devices to advertise information about themselves to other devices on the same local network segment, facilitating device discovery and network topology mapping.

For information on LLDP, see Configuring ERSPAN.

System management feature guidelines

This section outlines the supported system management features, corresponding switches, software releases, and known limitations for Cisco N9324C-SE1U, Cisco N9348Y2C6D-SE1U switches.

Table 1: Supported System management features and releases

Features	Release
SPAN	10.6(1s)
ERSPAN	10.6(1s)
sFlow	10.6(1s)
LLDP	10.6(1s)

PTP is not supported on Cisco N9324C-SE1U, Cisco N9348Y2C6D-SE1U switches.

SPAN limitations

- **Sessions**—A maximum of 10 active monitor (SPAN) sessions are supported at a time.

- **Packet mirroring**—Sharing of the same source port or interface across multiple sessions is not supported. SPAN mirrored packets use the default egress queue and do not have a dedicated SPAN egress queue.

- **SPAN to CPU**—Monitor statistics are not displayed for SPAN to CPU. Both Rx and Tx mirroring are supported for SPAN to CPU.

- **Port-channel interface**—When a port-channel interface with multiple member ports is configured as a SPAN destination, only one member interface is used for mirrored traffic. Member selection is handled in software, which results in packet loss when membership changes.

- **MTU truncation**—MTU truncation is supported only for 144 bytes in Rx mirroring and 80 bytes in Tx mirroring, excluding FCS.

- **Unsupported features**—The features that are not supported include:

    - SPAN on subinterfaces,

    - sharing of the same source port or interface across sessions,

    - tunnel ports,

    - VLAN source,

    - UDF, and

    - ACL filter.

ERSPAN limitations

- **Sessions**—A maximum of 10 active monitor (ERSPAN) sessions are supported at a time.

- **Packet mirroring**—Sharing of the same source port or interface across multiple sessions is not supported. ERSPAN mirrored packets use the default egress queue and do not have a dedicated ERSPAN egress queue.

- **MTU truncation**— MTU truncation is supported only for 144 bytes in Rx mirroring and 80 bytes in Tx mirroring, excluding FCS.

- **Port-channel interface**—When port-channel interface with multiple member ports is configured as an ERSPAN destination, only one member interface is used for mirrored traffic. Member selection is handled in software, which results in packet loss when membership changes.

- **Unsupported features**—The features that are not supported include:

    - ERSPAN on subinterfaces

    - sharing of the same source port or interface across sessions,

    - tunnel ports,

    - VLAN as source,

    - UDF, and

    - ACL filter.

sFLOW limitations

- For egress sampled packet, re-written information is not available in sFlow record.

- Egress Layer 2 source interface is not supported.

- sFlow is not supported on the sub-interface traffic.

System management feature guidelines