New Features

This chapter describes the new hardware and software features supported on the Cisco NCS 4200 Series in this release.

New Software Features for NCS 4201 and NCS 4202 in Cisco IOS XE Fuji 16.8.1b

- **Egress QoS for IPSLA**

  The IPSLA packet classification is enabled in egress QoS. This feature enables you to apply classification and queueing on the egress interface for IPSLA packets. The egress interface can be either a Layer 2 interface under bridge domain interface (BDI) or a Layer 3 physical interface.

  The following new command is introduced for this feature:

  platform ipsla classify cpu packets

  For more information on Egress QoS for IPSLA, see the Quality of Service Configuration Guidelines, Cisco IOS XE 16.8.x (Cisco NCS 4200 Series).

  For more information on the new command, see the Cisco IOS Quality of Service Solutions Command Reference.

- **Programmability**

  - Model-Based AAA— Implements the NETCONF Access Control Model (NACM). NACM is a form of role-based access control (RBAC) specified in RFC 6536.
  - NETCONF Global Session Lock and Kill Session—Provides a global lock and the ability to kill non-responsive sessions in NETCONF. During a session conflict or client misuse of the global lock, NETCONF sessions can be monitored via the show netconf-yang sessions command, and non-responsive sessions can be cleared using the clear configuration lock command.
  - NETCONF and RESTCONF Debug commands—Commands for debugging were added.
  - NETCONF and RESTCONF IPv6 Support—Data model interfaces (DMIs) support the use of IPv6 protocol. DMI IPv6 support helps client applications to communicate with services that use IPv6 addresses. External facing interfaces will provide dual-stack support; both IPv4 and IPv6.

- YANG Data Models—For the list of Cisco IOS XE YANG models available with this release, navigate to https://github.com/YangModels/yang/tree/master/vendor/cisco/xe/1681

  Revision statements embedded in the YANG files indicate if there has been a model revision. The README.md file in the same github location highlights changes that have been made in the release.

For more information on the Programmability features, see the Programmability Configuration Guide, Cisco IOS XE Fuji 16.8.x.

- **Support for Seven Level Priority Queues**

  The Cisco NCS now supports seven priority levels: level 1 (high) and level 7 (low). The device places traffic with a high-priority level on the outbound link ahead of traffic with a low-priority level. High-priority packets, therefore, are not delayed behind low-priority packets.

  For more information, see the QoS: Congestion Management Configuration Guide, Cisco IOS XE Release 3S (Cisco NCS 4200 Series).

- **VPLS over Backup Pseudowire**

  Pseudowire redundancy allows you to detect any failure in the network and reroute the Layer 2 service to another endpoint that can continue to provide service by providing additional backup pseudowire. This feature provides the ability to recover from a failure of either the remote provider edge (PE) router or the link between the PE and customer edge (CE) routers.

  For more information, see the MPLS Layer 2 VPNs Configuration Guide, Cisco IOS XE Fuji 16.8.x (Cisco NCS 4200 Series).

- **Latching Loopback**

  Latching loopback feature is supported.

  For more information, see the Carrier Ethernet Configuration Guide, Cisco IOS XE Fuji 16.8.x (Cisco NCS 4200 Series).

New Hardware Features for NCS 4201 and NCS 4202 in Cisco IOS XE Fuji 16.8.1b

There are no new hardware features in this release.