New and Changed QoS Features

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Table 1: QoS Features Added or Modified in IOS XR Release 7.4.x

Feature	Description	Changed in Release	Where Documented
Cisco NC57 Native Mode: 802.1P marking	This feature marks priority code point (PCP) and drop eligible indicator (DEI) fields on VLAN-tagged ethernet frames egressing out of the Layer 3 subinterface and helps achieve differentiated QoS in the network based on PCP and DEI marking. This feature is now supported for multicast traffic on routers that have the Cisco NC57 line cards installed and operate in the native mode.	Release 7.4.2	QoS L2 Re-Marking of Ethernet Packets on L3 Flows in Egress Direction on L3 sub-interfaces

Feature	Description	Changed in Release	Where Documented
Explicit Congestion Notification	This feature marks packets instead of dropping them when the average queue length exceeds a specific threshold value, ensuring timely and efficient end-to-end congestion notification leading to fewer packet drops. This feature is now supported on routers that have Cisco NC57 line cards installed and operate in the native mode.	Release 7.4.2	#unique_8
Cisco NC57 Native Mode: QoS Enablement on Layer 2 Services	This feature is now supported on routers that have the Cisco NC57 line cards installed and operate in the native mode.	Release 7.4.1	Packet Classification Overview
Cisco NC57 Native Mode: 802.1P marking	This feature is now supported on routers that have the Cisco NC57 line cards installed and operate in the native mode.	Release 7.4.1	QoS L2 Re-Marking of Ethernet Packets on L3 Flows in Egress Direction on L3 sub-interfaces
Packets-Per-Second-Based Policer	Prior to this functionality, when configuring policers, the only available option for policer rates was bit-rate measured in units of bits per second (bps). With this release, you can configure policer rates in units of packets per second (pps) as well.	Release 7.4.1	Packets-Per-Second-Based Policer
Configure WRED Counters by Class	This feature enables the display of WRED statistics per class, thus providing a more accurate and granular statistics profile for packet drops.	Release 7.4.1	Configure WRED Counters by Class

Feature	Description	Changed in Release	Where Documented
Class-based Unconditional Packet Marking	This feature is now supported on routers that have the Cisco NC57 line cards installed and operate in native and compatibility modes.	Release 7.4.1	Class-based Unconditional Packet Marking
Set Peak Burst Size for Egress Shaping	This feature is now supported on routers that have the Cisco NC57 line cards installed and operate in native and compatibility modes.	Release 7.4.1	Configure VOQ-Level Traffic Shaping
Absolute Rates for Bundle Interfaces for Traffic Shapers and Traffic Policers	This feature is now supported on routers that have the Cisco NC57 line cards installed and operate in native and compatibility modes.	Release 7.4.1	Configure VOQ-Level Traffic Shaping and Configure Traffic Policing (Single-Rate Three-Color)
Scaling of Unique Ingress Policy Maps	This feature is now supported on routers that have the Cisco NC57 line cards installed and operate in native mode.	Release 7.4.1	Scaling of Unique Ingress Policy Maps
Shared Policer	This feature is now supported on routers that have the Cisco NC57 line cards installed and operate in native and compatibility modes.	Release 7.4.1	Shared Policer
Shared Policy Instance	This feature is now supported on routers that have the Cisco NC57 line cards installed and operate in native and compatibility modes.	Release 7.4.1	Shared Policy Instance
Ingress Policing on BVI (Bridge Group Virtual Interface) and Low-Latency Queueing (LLQ)	This feature is now supported on routers that have the Cisco NC57 line cards installed and operate in native and compatibility modes.	Release 7.4.1	"Restrictions for QoS on BVI" under Restrictions and Low-Latency Queuing with Strict Priority Queuing