

New Features

This chapter describes the new hardware and software features supported on the Cisco ASR 920 Series routers in the following releases:

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- New Software Features in Cisco IOS XE Gibraltar 16.12.8, on page 1
- New Hardware Features in Cisco IOS XE Gibraltar 16.12.7, on page 1
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- New Hardware Features in Cisco IOS XE Gibraltar 16.12.6, on page 2
- New Software Features in Cisco IOS XE Gibraltar 16.12.6, on page 2
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New Hardware Features in Cisco IOS XE Gibraltar 16.12.8

There are no new hardware features for this release.

New Software Features in Cisco IOS XE Gibraltar 16.12.8

There are no new software features for this release.

New Hardware Features in Cisco IOS XE Gibraltar 16.12.7

There are no new hardware features for this release.

New Software Features in Cisco IOS XE Gibraltar 16.12.7

There are no new software features for this release.

New Hardware Features in Cisco IOS XE Gibraltar 16.12.6

There are no new hardware features for this release.

New Software Features in Cisco IOS XE Gibraltar 16.12.6

There are no new software features for this release.

New Hardware Features in Cisco IOS XE Gibraltar 16.12.5

There are no new hardware features for this release.

New Software Features in Cisco IOS XE Gibraltar 16.12.5

There are no new software features for this release.

New Hardware Features in Cisco IOS XE Gibraltar 16.12.4

There are no new hardware features for this release.

New Software Features in Cisco IOS XE Gibraltar 16.12.4

- **Configurable Y.1564 Service Activation Frame Sizes and EMIX Support**

  Enterprise traffic (EMIX) packet size (default abceg pattern) is supported. For EMIX traffic, ITU-T Rec. Y.1564 packet sizes of 64, 128, 256, 1024, and 1518 bytes are supported.

  For more information, see the IP SLAs Configuration Guide, Cisco IOS XE Gibraltar 16 (Cisco ASR 920 Series).

- **SADT Overhead Accounting**

  FPGA measures the following parameters for SADT:

  - Throughput
  - Frame Loss
  - Jitter

- Delay

FPGA has the capability to generate and measure only 1Gbps traffic rate and hence maximum throughput cannot be achieved. To overcome this limitation, use the **platform y1564 shadow-session-enable** command to replicate the packets 10 times in FPGA.

For more information, see IP SLAs Configuration Guide, Cisco IOS XE Gibraltar 16 (Cisco NCS 920 Series).

New Hardware Features in Cisco IOS XE Gibraltar 16.12.3

There are no new hardware features for this release.

New Software Features in Cisco IOS XE Gibraltar 16.12.3

There are no new software features for this release.

New Hardware Features in Cisco IOS XE Gibraltar 16.12.2a

There are no new hardware features for this release.

New Software Features in Cisco IOS XE Gibraltar 16.12.2a

There are no new software features for this release.

New Hardware Features in Cisco IOS XE Gibraltar 16.12.1

There are no new hardware features for this release.

New Software Features in Cisco IOS XE Gibraltar 16.12.1

- **Segment Routing uLoop Avoidance**

  The Segment Routing uLoop Avoidance feature prevents the occurrences of microloops during network convergence after a link-down event or link-up event.

  For more information, see Segment Routing Configuration Guide, Cisco IOS XE Gibraltar 16.12.x (Cisco ASR 920 Series).

- **Transparent PDH over Packet Smart SFP**

  The TPoP smart SFP now transparently encapsulates the T1 stream into a SAToP packet for pseudowire transport over the PSN.

For more information on TPoP smart SFP, see Time Division Multiplexing Configuration Guide, Cisco IOS XE Gibraltar 16.12.x (Cisco ASR 920 Series).

- **Virtual Container over Packet Smart Small Form-factor Pluggable**

  The VCoP smart SFP forwards the PDH/SONET signals transparently across the packet switched network. The VCoP smart SFP is a special type of transceiver which encapsulates SONET frames on STS-1, STS-3C or STS-12C, and T3 frames on STS-1 channels into a single circuit emulating pseudowire and transports them to a single destination over the network.

  The VCoP smart SFP is now supported on the Cisco ASR-920-4SZ-A/D and Cisco ASR-920-12CZ-A/D Routers.

  For more information on VCoP Smart SFP, see Time Division Multiplexing Configuration Guide, Cisco IOS XE Gibraltar 16.12.x (Cisco ASR 920 Series).

- **Y.1564 10G internal mode**

  Y.1564 is an Ethernet service activation test methodology and is the standard for turning up, installing, and troubleshooting Ethernet and IP based services. Y.1564 is the only standard test methodology that allows a complete validation of Ethernet service-level agreements (SLAs) in a single test.

  For more information on the Y.1564. 10G internal mode, see the *IP SLAs Configuration Guide, Cisco IOS XE Gibraltar 16.12.x (Cisco ASR 920 Series)*.