



Release Notes for Cisco IOS XRd, IOS XR Release 25.2.1



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Cisco IOS XRd, IOS XR Release 25.2.1

Cisco IOS XR Release 25.2.1 introduces new features for XRd, including compatibility with Amazon EC2 m6in.16xlarge instances for cost-effective cloud router deployment and support for Amazon Linux 2023, offering kernel 6.1 and cgroup v2 features. It also adds a gRPC-based North Bound API for exporting BGP-LS topology objects, enabling real-time updates for external controllers. Supported deployments include AWS EKS and lab environments.

New software features

Table 1. New software features for Cisco IOS XRd, Release 25.2.1

Product Impact	Feature	Description
Upgrade	XRd vRouter compatibility with Amazon EC2 m6in.16xlarge instances	You can now select the Amazon EC2 m6in.16xlarge instance type for deploying the XRd vRouter as a cloud router. This option provides customers with the flexibility to optimise for cost and performance based on their deployment needs. The m6in.16xlarge instance type may offer a more cost-effective balance of price and performance compared to the m5n.24xlarge instance type, depending on the specific deployment scenario. However, support for the m5n.24xlarge instance type will continue, ensuring a choice of options to suit different requirements.
Upgrade	XRd support for Amazon Linux 2023	You can now deploy the XRd Control Plane and XRd vRouter with Amazon Linux 2023 as the base operating system on AWS. This upgrade from Amazon Linux 2 offers significant advantages, including Linux kernel version 6.1 and cgroup v2 features. Note that support for Amazon Linux 2 is not available from Cisco IOS XR Release 25.2.1 onward.
API Experience	gRPC based North Bound API for BGP-LS objects	<p>This gRPC-based API exports BGP-LS topology objects, which include Nodes, Links, IPv4 and IPv6 Prefixes, SRv6 SIDs, and SR Policy Candidate Paths. The API designed to provide real-time updates to external controllers and applications, enabling them to perform tasks such as re-optimization, service placement, and network visualization.</p> <p>This NB-API is supported on LSLIB Server</p> <p>For more information, refer to the Cisco Crosswork Optimization Engine User Guides.</p>

Changes in behavior

- The **Cisco-IOS-XR-pmengine-oper.yang data** model has been updated to ensure consistency. The naming convention has been standardized by renaming elements such as **hour24fec** to **hour24-fec**, **minute15pcs** to **minute15-pcs**, and **second30pcs** to **second30-pcs** across all layers, including OTN, OTNSEC, PCS, FEC, PRBS, Ether, and GFP. For more details on the sensor paths or the updated 25.2.1 Yang models, refer to the [GitHub](#) repository.

Open issues

There are no open caveats in this release.

Known issues

There are no known issues in this release.

Compatibility

Supported deployments

This section details the supported XRd deployments in this release.

Table 2. Supported deployments for Cisco IOS XRd, Release 25.2.1

Deployment	Reference
Amazon Elastic Kubernetes Service (AWS EKS)	XRd vRouter or XRd Control Plane on AWS EKS
XRd lab deployments	XR docs virtual routing

Related resource

Table 3. Related resource

Resource	Description
Smart licensing	Provides information about Smart Licensing Using Policy solutions and their deployment on IOS XR routers.
Cisco XRd documentation	Provides CDC documentation for Cisco XRd.
XRd tools	Provides utilities to verify host resource sufficiency and assist in launching Cisco IOS XRd instances in lab environment.
XR docs virtual routing	Provides instructions for deploying XRd in lab settings, along with information on other deployment environments that are not yet officially supported.
Transceiver Module Group (TMG) compatibility matrix	Allows searching by product family, product ID, data rate, reach, cable type, or form factor to determine the transceivers that Cisco hardware device supports.
Cisco IOS XR Error messages	Allows searching by release number, error strings, or comparing release numbers to view a detailed repository of error messages and descriptions.
Cisco IOS XR MIBs	Allows selecting the MIB of your choice from a drop-down to explore an extensive repository of MIB information.
Yang data models in GitHub	Provides yang data models introduced and enhanced in every IOS XR release.
Recommended release	Provides a general guide in case of upgrading IOS XR routers or new deployments that involve IOS XR routers.

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