# Release Notes for Cisco IOS XRd, IOS XR Release 25.3.1

# Contents

## Cisco IOS XRd, IOS XR Release 25.3.1

Cisco IOS XR Release 25.3.1 for XRd introduces configurable SSH session and channel timeouts to improve security and resource efficiency, and upgrades the VPP dataplane to version 23.06. The release also features YANG-Push for enhancing automation and network observability.

## New software features

**Table 1.** New software features for Cisco IOS XRd, Release 25.3.1

| Product impact | Feature | Description |
|---|---|---|
| Software Reliability | Unused connection timeout for SSH sessions | You can prevent session limit exhaustion and maintain optimal system performance by automatically disconnecting SSH connections with no active channels. The feature introduces a configurable timeout for unused SSH connections, ensuring stale sessions do not occupy resources on your routers. The router monitors each SSH connection and terminates it when all channels remain closed and SSH clients do not create new channels within the configured timeout period. |
| Software Reliability | Channel timeout for SSH sessions | You can improve resource efficiency and minimize potential security risks by automatically closing idle SSH channels on the routers after a specific period of inactivity. The feature introduces a configurable timeout for SSH channels which ensures that unused channels do not persist while the parent SSH connection remains active. The router monitors each SSH channel and closes any channel where no data is sent or received within the configured timeout period. |
| Upgrade | VPP Dataplane Upgrade to Version 23.06 | The Vector Packet Processing (VPP) component used in the software dataplane has been upgraded to version 23.06. This update only applies to Cisco IOS XRd vRouter, as VPP is not used on Cisco IOS XRd Control Plane. |
| Software Reliability | YANG-Push | YANG-Push provides a real-time telemetry solution by allowing applications to subscribe to specific YANG datastore updates. This feature enables efficient, low-latency streaming of operational state data to subscribed receivers. By reducing the reliance on traditional polling methods, YANG-Push enhances network observability, accelerates troubleshooting, and optimizes data collection for modern network automation and assurance workflows |

## Changes in behavior

- Full Outgoing Interface Name in Cisco-IOS-XR-mpls-forwarding-oper: The outgoing-interface leaf of Cisco-IOS-XR-mpls-forwarding-oper has been updated to include the full outgoing interface name instead of the shortened interface name.
- Call Home transport mode deprecated: Starting with Release 25.3.1, IOS XR software no longer supports Call Home transport mode for Licensing. Please configure CSLU or Smart Transport to ensure seamless operation of the licensing solution.

## 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 25.3.1

| 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:<br>- Apply bugfixes to XRd images<br>- Verify the host is setup correctly to run XRd<br>- Assist in launching XRd instances in a 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. |
| 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. |

## Legal information