



Release Notes for Cisco IOS XRd, IOS XR Release 25.4.1

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Cisco IOS XRd, IOS XR Release 25.4.1

Cisco IOS XR Release 25.4.1 is a new feature and hardware release for XRd. Key highlights include enhanced system monitoring and software reliability with the introduction of warning syslog messages.

New software features

Table 1. New software features for IOS XRd, Release 25.4.1

Product impact	Feature	Description
System Monitoring		
Software reliability	Insecure features warning syslog messages	<p>Cisco IOS XR software warns you with a syslog message each time you use an insecure command and repeats the warning every 30 days until you remove the command. This helps you identify potential security risks and suggests safer alternatives to improve your network security.</p> <p>Cisco will systematically deprecate and eventually remove these insecure features and protocols in future IOS XR releases. For more information on insecure commands and their alternatives, see Feature deprecation phasing out insecure capabilities.</p>

Changes in behavior

- **Deprecation and phasing out features with insecure capabilities and its secure alternatives**
From Release 25.4.1, Cisco IOS XR software displays warning messages when you configure features or protocols that lack sufficient security, such as those that transmit sensitive data without encryption or use outdated encryption mechanisms. The software also shows warnings when you do not follow security best practices, and it provides suggestions for secure alternatives.

This list may change, but Cisco plans to generate warnings for the following features and protocols from Release 25.4.1. Each Release Notes will describe the exact changes for that version. These documents list all features planned for removal, including insecure commands, and provide recommended secure alternatives to help you maintain network security and compliance.

- [Feature deprecation phasing out insecure capabilities](#)
- [Feature deprecation and removal details](#)
- [Feature removal and suggested alternatives](#)

Table 2. Deprecation and phasing out features with insecure capabilities and its secure alternatives

If you are using the following insecure features...	Then follow these secure alternatives...
HTTP	Use HTTPS.
FTP client install FTP install TFTP	Use SFTP.
IPv4 source route	There is no alternative. Do not enable IPv4 source routing.

If you are using the following insecure features...	Then follow these secure alternatives...
Telnet client Telnet dscp	There is no alternative. Do not use Telnet client.
Telnet server	Use SSH.
TFTP client	Use SFTP.
TFTP server	Use SSH.
copy ftp copy ftp running-config copy running-config ftp copy running-config tftp copy tftp copy tftp running-config copy xml-schema tftp	Use SFTP or SCP.
install FTP install TFTP	Use SFTP.
TCP or UDP small_servers	There is no alternative. Do not use TCP or UDP small_servers.
SSHv1	Use ssh server v2.
SSH host-key DSA algorithm	Use ECDSA, ED25519, or RSA and so on.
Syslog TLS Version 1.1 (server1)	Configure TLS Version 1.2 or higher.
TLS 1.0 TLS 1.1	Use TLS 1.2 or TLS 1.3.
utility mv ftp utility mv tftp	There is no alternative. Do not use utility mv ftp and utility mv tftp.
load ftp load tftp load script ftp load script tftp load diff ftp load diff tftp load diff reverse ftp load diff reverse tftp	Use scp or sftp.
tacacs and radius server with type-7 shared secret	Use type 6 secret.

Open issues

There are no open issues 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 3. Supported deployments for Cisco IOS XRd, Release 25.4.1

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 4. 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: <ul style="list-style-type: none">- Apply bugfixes to XRd images- Verify the host is setup correctly to run XRd- 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.

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