

New Features

This document provides an overview of the new features available in the system.

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New features for Cisco IOS XE 26.2.1

This reference identifies the new features available in Cisco IOS XE 26.2.1 release.

New features in this release are:

- DHCP Option 82
- IKEv2 and IPsec PFS Post Quantum Cryptography
- Post Quantum Cryptography for SSHv2 sessions

New features for Cisco IOS XE 26.1.1

This reference identifies the new features available in Cisco IOS XE 26.1.1 release.

New features in this release are:

- Power Over Ethernet (PoE)
- Unified Threat Defence

New features for Cisco IOS XE 17.18.2

New features in this release are:

- Cisco ThousandEyes Enterprise Agent
- Common HSEC License

New Features for Cisco IOS XE 17.16.1a

This document outlines the new features available in the Cisco IOS XE 17.16.1a release.

- Monitoring Radio Signal Parameters and GPS Coordinates of Cellular Telemetry using Syslog Messages

New Features for Cisco IOS XE 17.15.1a

This document lists the new features available in the Cisco IOS XE 17.15.1a release.

This new feature is available in this release:

- Higher CPU and RAM Allocation for IOx Applications

New Features for Cisco IOS XE 17.14.1a

This document lists the new features available in the Cisco IOS XE 17.14.1a release.

- Direct Parenting of LFN Support in Wi-SUN Mesh Deployment

New features for Cisco IOS XE 17.8.1

This reference provides information about the new features available in Cisco IOS XE 17.8.1 release.

IKEv2 for WPAN support

IKEv2 for WPAN support is a routing capability that:

- enables IKEv2 dynamic routing from Cisco IOS-XE Release 17.8.1 on the IR8140H router,
- allows redistribution of WPAN external routes (such as MAP-T routes) into IKEv2, and
- supports both spoke and hub distribution models.

WPAN high availability support

WPAN high availability support is a redundancy feature that:

- enables high availability for WPAN between two IR8140H routers, each with one WPAN module,
- uses HSRP to track state between the two routers, and

- synchronizes WPAN state (RPL routes, mesh-security sessions and keys, multicast sequence numbers) between the two routers using a reliable UDP based protocol.

WPAN high availability limitations

WPAN HA has specific implementation constraints:

- WPAN HA will not integrate with the rest of the IOS XE HA infrastructure. It is specific to WPAN.
- WPAN HA will only be supported between two IR8140 routers with a single WPAN interface each.
- This feature cannot be used together with the Dual WPAN interface feature.



Note WPAN HA will not integrate with the rest of the IOS XE HA infrastructure. It is specific to WPAN. WPAN HA will only be supported between two IR8140 routers with a single WPAN interface each. This feature cannot be used together with the Dual WPAN interface feature.

Yang model for WPAN

A Yang model for WPAN is an operational model that provides Yang operational model support for information available through WPAN show commands.

Available commands

Yang operational model support includes commands for:

- The WPAN interface (for example, **show wpan 0/X/0**)
- RPL commands (for example, **show wpan 0/X/0 rpl**)
- meshsec (for example, **show mesh-security**)

Cisco IOS-XE Yang Data Models are found here:

https://github.com/YangModels/yang/tree/master/vendor/cisco/xe

Each release has a directory, and the 17.8.1 release is found under 1781.

Yang model for BBU

A Yang model for BBU is a data model that:

- provides operational model support for Battery Backup Unit (BBU) information,
- enables access to BBU information currently available via show commands, and
- follows Cisco IOS-XE Yang Data Model standards.

Yang model availability

The Yang operational model support has been added for the Battery Backup Unit (BBU) information currently available via show commands. For example, **show platform hardware battery**.

For more details on Cisco IOS-XE Yang Data Models, see
https://github.com/YangModels/yang/tree/master/vendor/cisco/xe

Each release has a directory, and the 17.8.1 release is found under 1781.

Yang model for GPS

A Yang model for GPS is an operational model that provides structured access to GNSS information through standardized data formats instead of traditional show commands.

Yang model implementation details

Yang operational model support will be added for GNSS information currently available via show commands.

For example, **show platform hardware gnss**

Cisco IOS-XE Yang Data Models are found here:

https://github.com/YangModels/yang/tree/master/vendor/cisco/xe

Each release has a directory, and the 17.8.1 release is found under 1781.

Itron CAM Module support

The IR8140 supports third party modules from Cisco IOS-XE Release 17.8.1.

Before inserting the 3rd-party module, use the CLI **hw-module subslot 0/1 3rdparty-mode** to configure the slot as 3rd-party mode, to avoid delays during boot caused by the system looking for ACT2, which does not exist on a 3rd-party module.