

## **New and Changed Information**

This chapter provides release-specific information about all features.

• New and Changed Information, on page 1

## **New and Changed Information**

This table summarizes the new and changed features, the supported platforms, and links to features.

Table 1: New and Changed Feature Information

Feature	Release & Platform
Provisioning	

Feature	Release & Platform
Zero-Touch Provisioning	

Feature	Release & Platf	orm
	Cisco IOS XE E	Everest 16.5.1a
	• Cisco Cata	lyst 3650 Series Switches
	• Cisco Cata	lyst 3850 Series Switches
	Cisco Cata	lyst 9300 Series Switches
	• Cisco Cata	lyst 9500 Series Switches
	Cisco IOS XE E	Everest 16.5.1b
	• Cisco 4000	Series Integrated Services Routers
	Cisco IOS XE E	Everest 16.6.2
	• Cisco Cata	lyst 9400 Series Switches
	Cisco IOS XE F	ʻuji 16.7.1
		1000 Aggregation Services Routers (ASR1001-X, HX, ASR1002-X, ASR1002-HX)
	Cisco IOS XE F	uji 16.8.1a
	Cisco Cata	lyst 9500-High Performance Series Switches
	Cisco IOS XE F	Tuji 16.8.2
		1000 Series Aggregation Services Routers , ASR1006, ASR1006-X, ASR1009-X, ASR1013)
	Cisco IOS XE C	Gibraltar 16.12.1
	Cisco Cata	lyst 9200 Series Switches
	Note	This feature is not supported on C9200L SKUs.
	• Cisco Cata	lyst 9300L SKUs
	• Cisco Cata	lyst 9600 Series Switches
	• Cisco Cata	lyst 9800-40 Wireless Controllers
	• Cisco Cata	lyst 9800-80 Wireless Controllers
	Cisco IOS XE A	Amsterdam 17.2.1
	• Cisco Clou	d Services Router 1000V Series
		00 Terminal Services Gateway (Supported only on K-1N24P32A)
	Cisco IOS XE A	Amsterdam 17.3.1
	• Cisco Cata	lyst 8200 Series Edge Platforms

Feature	Release & Platform
	Cisco Catalyst 8300 Series Edge Platforms
	Cisco IOS XE Cupertino 17.8.1
	Cisco Catalyst 9800-L Wireless Controllers
Secure Zero-Touch Provisioning	Cisco IOS XE Dublin 17.11.1
	Cisco Catalyst 9300 and 9300L Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 and 9500-High Performance Series Switches
	Cisco Catalyst 9600 Series Switches
Zero Touch Provisioning: HTTP	Cisco IOS XE Fuji 16.8.1
Download	Cisco 4000 Series Integrated Services Routers
	Cisco Catalyst 3650 Series Switches
	Cisco Catalyst 3850 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco IOS XE Fuji 16.8.1a
	Cisco Catalyst 9500-High Performance Series Switches
DHCPv6 Support for Zero-Touch	Cisco IOS XE Fuji 16.9.1
Provisioning	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco IOS XE Amsterdam 17.3.2a
	Cisco Catalyst 9800-40 Series Wireless Controllers
	Cisco Catalyst 9800-80 Series Wireless Controllers
Zero-Touch Provisioning Through	Cisco IOS XE Cupertino 17.7.1
YANG Models	This feature is supported on all platforms that support NETCONF-YANG.

Feature	Release & Platform
iPXE	Cisco IOS XE Denali 16.3.2 and Cisco IOS XE Everest 16.5.1a
	Cisco Catalyst 3650 Series Switches
	Cisco Catalyst 3650 Series Switches
	Cisco IOS XE Everest 16.6.1
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco IOS XE Everest 16.6.2
	Cisco Catalyst 9400 Series Switches
	Cisco IOS XE Fuji 16.8.1a
	Cisco Catalyst 9500-High Performance Series Switches
	Cisco IOS XE Fuji 16.9.2
	Cisco Catalyst 9200 Series Switches
	Cisco IOS XE Gibraltar 16.11.1
	Cisco Catalyst 9600 Series Switches
Shells and Scripting	

Feature	Release & Platform
Guest Shell	Cisco IOS XE Everest 16.5.1a
	Cisco Catalyst 3650 Series Switches
	Cisco Catalyst 3850 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco IOS XE Everest 16.5.1b
	Cisco 4000 Series Integrated Services Routers
	Cisco IOS XE Everest 16.6.2
	Cisco Catalyst 9400 Series Switches
	Cisco IOS XE Fuji 16.7.1
	Cisco ASR 1000 Aggregation Services Routers (ASR1001-X, ASR1001-HX, ASR1002-X, ASR1002-HX)
	Cisco Cloud Services Router 1000V Series
	Cisco IOS XE Fuji 16.8.1
	Cisco Catalyst 9500-High Performance Series Switches
	Cisco IOS XE Fuji 16.9.1
	Cisco 1000 Series Integrated Services Routers
	Cisco IOS XE Gibraltar 16.11.1b
	Cisco Catalyst 9800-40 Wireless Controllers
	Cisco Catalyst 9800-80 Wireless Controllers
	Cisco IOS XE Gibraltar 16.12.1
	Cisco Catalyst 9200 Series Switches
	Note This feature is not supported on C9200L SKUs.
	Cisco Catalyst 9300L SKUs
	Cisco Catalyst 9600 Series Switches
	Cisco IOS XE Amsterdam 17.3.1
	Cisco Catalyst 8200 Series Edge Platforms
	Cisco Catalyst 8300 Series Edge Platforms

Feature	Release & Platform
Python 3 Support in Guest Shell	Cisco IOS XE Amsterdam 17.1.1
	Cisco 1000 Series Integrated Services Routers
	Cisco ASR 1000 Aggregation Services Routers     (ASR1000-RP1, ASR1000-RP2, ASR1000-RP3, ASR1001-X, ASR1001-HX, ASR1002-X, ASR1002-HX)
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco Catalyst 9600 Series Switches
	Cisco ISR 4000 Series Integrated Services Routers
NETCONF Access from Guest Shell	Cisco IOS XE Bengaluru 17.6.1
	Cisco Catalyst 9200 Series Switches
	Cisco Catalyst 9300 and 9300L Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 and 9500-High Performance Series Switches
	Cisco Catalyst 9600 Series Switches

Feature	Release & Platform
Python APIs	Cisco IOS XE Everest 16.5.1a
	Cisco Catalyst 3650 Series Switches
	Cisco Catalyst 3850 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco IOS XE Everest 16.5.1b
	Cisco 4000 Series Integrated Services Routers
	Cisco IOS XE Everest 16.6.2
	Cisco Catalyst 9400 Series Switches
	Cisco IOS XE Fuji 16.7.1
	Cisco ASR 1000 Aggregation Services Routers (ASR1001-X, ASR1001-HX, ASR1002-X, ASR1002-HX)
	Cisco Cloud Services Router 1000V Series
	Cisco IOS XE Fuji 16.8.1a
	Cisco Catalyst 9500-High Performance Series Switches

Feature	Release & Platform
Python CLI Module	Cisco IOS XE Everest 16.5.1a
	Cisco Catalyst 3650 Series Switches
	Cisco Catalyst 3850 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco IOS XE Everest 16.5.1b
	Cisco 4000 Series Integrated Services Routers
	Cisco IOS XE Everest 16.6.2
	Cisco Catalyst 9400 Series Switches
	Cisco IOS XE Fuji 16.7.1
	Cisco ASR 1000 Aggregation Services Routers (ASR1001-X, ASR1001-HX, ASR1002-X, ASR1002-HX)
	Cisco Cloud Services Router 1000V Series
	Cisco IOS XE Fuji 16.8.1
	Cisco 4000 Series Integrated Services Router models with a minimum of 4 GB RAM.
	Cisco ASR 1000 Series Aggregation Services Routers (ASR1004, ASR1006, ASR1006-X, ASR1009-X, ASR1013)
	Cisco IOS XE Fuji 16.8.1a
	Cisco Catalyst 9500-High Performance Series Switches

Feature	Release & Platform
EEM Python Module	Cisco IOS XE Everest 16.5.1a
	Cisco Catalyst 3650 Series Switches
	Cisco Catalyst 3850 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco IOS XE Everest 16.5.1b
	Cisco 4000 Series Integrated Services Routers
	Cisco IOS XE Everest 16.6.2.
	Cisco Catalyst 9400 Series Switches
	Cisco IOS XE Fuji 16.7.1
	Cisco ASR 1000 Aggregation Services Routers (ASR1001-X, ASR1001-HX, ASR1002-X, ASR1002-HX)
	Cisco Cloud Services Router 1000V Series
	Cisco IOS XE Fuji 16.8.1a
	Cisco Catalyst 9500-High Performance Series Switches
Model-Driven Programmability	

Feature	Release & Platform
NETCONF Protocol	Cisco IOS XE Denali 16.3.1
	Cisco Catalyst 3650 Series Switches
	Cisco Catalyst 3850 Series Switches
	Cisco 4000 Series Integrated Services Routers
	Cisco IOS XE Everest 16.5.1a
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco IOS XE Everest 16.6.2
	Cisco Catalyst 9400 Series Switches
	Cisco IOS XE Fuji 16.7.1
	Cisco ASR 900 Series Aggregation Services Routers
	Cisco Network Convergence System 4200 Series
	Cisco IOS XE Fuji 16.9.2
	Cisco Catalyst 9200 Series Switches
	Cisco IOS XE Gibraltar 16.10.1
	Cisco Catalyst 9800 Series Wireless Controllers
	Cisco Network Convergence System 520 Series
	Cisco IR1101 Integrated Services Router Rugged
	Cisco IOS XE Gibraltar 16.11.1
	Cisco Catalyst IE 3200, 3300, 3400 Rugged Series
	Cisco Embedded Service 3300 Series Switches

Feature	Release & Platform
NETCONF and RESTCONF IPv6 Support	Cisco IOS XE Fuji 16.8.1a
	Cisco 4000 Series Integrated Services Routers
	Cisco ASR 1000 Series Aggregation Services Routers
	Cisco ASR 900 Series Aggregation Services Routers
	Cisco Catalyst 3650 Series Switches
	Cisco Catalyst 3850 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco cBR-8 Converged Broadband Router
	Cisco Cloud Services Router 1000V Series
	Cisco IOS XE Gibraltar 16.11.1
	Cisco Catalyst 9500-High Performance Series Switches
NETCONF Global Lock and Kill	Cisco IOS XE Fuji 16.8.1a
Session	Cisco 1100 Series Integrated Services Routers
	Cisco 4000 Series Integrated Services Routers
	Cisco ASR 1000 Series Aggregation Services Routers
	Cisco ASR 900 Series Aggregation Services Routers
	Cisco Catalyst 3650 Series Switches
	Cisco Catalyst 3850 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco cBR-8 Converged Broadband Router
	Cisco Cloud Services Router 1000v Series

Feature	Release & Platform
NETCONF-YANG SSH Server Support	Cisco IOS XE Gibraltar 16.12.1
	Cisco 1000 Series Integrated Services Routers
	Cisco 4000 Series Integrated Services Routers
	Cisco ASR 900 Series Aggregation Services Routers
	Cisco ASR 920 Series Aggregation Services Routers
	Cisco ASR 1000 Aggregation Services Routers
	Cisco Catalyst 3650 Series Switches
	Cisco Catalyst 3850 Series Switches
	Cisco Catalyst 9200 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco Catalyst 9600 Series Switches
	Cisco Catalyst 9800 Series Wireless Controllers
	Cisco cBR-8 Converged Broadband Router
	Cisco Cloud Services Router 1000V Series
	Cisco Network Convergence System 520 Series
	Cisco Network Convergence System 4200 Series

Feature	Release & Platform
Named Method List	Cisco IOS XE Cupertino 17.9.1
	Cisco 1000 Series Integrated Services Routers
	Cisco 4000 Series Integrated Services Routers
	Cisco ASR 900 Series Aggregation Services Routers
	Cisco ASR 920 Series Aggregation Services Routers
	Cisco ASR 1000 Aggregation Services Routers
	Cisco Catalyst 8200 Series Edge Platforms
	Cisco Catalyst 8300 Series Edge Platforms
	Cisco Catalyst 8500 Series and 8500L Series Edge Platforms
	Cisco Catalyst 9200 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco Catalyst 9600 Series Switches
	Cisco Catalyst 9800 Series Wireless Controllers
	Cisco Cloud Services Router 1000V Series
	Cisco Network Convergence System 520 Series
	Cisco Network Convergence System 4200 Series
Side-Effect Synchronization of the	Cisco IOS XE Bengaluru 17.4.1
Configuration Database	Cisco ASR 1000 Series Aggregated Services Routers
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco Catalyst 9600 Series Switches

Feature	Release & Platform
YANG Model Version 1.1	Cisco IOS XE Cupertino 17.7.1
	Cisco 1000 Series Integrated Services Routers
	Cisco 4000 Series Integrated Services Routers
	Cisco ASR 900 Aggregation Services Routers
	Cisco ASR 920 Aggregation Services Routers
	Cisco ASR 1000 Aggregation Services Routers
	Cisco Catalyst 9200 and 9200L Series Switches
	Cisco Catalyst 9300 and 9300L Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 and 9500-High Performance Series Switches
	Cisco Catalyst 9600 Series Switches
	Cisco Catalyst 9800-40 Wireless Controllers
	Cisco Catalyst 9800-80 Wireless Controllers
	Cisco cBR-8 Converged Broadband Router
	Cisco Cloud Services Router 1000V Series
	Cisco Network Convergence System 520 Series
	Cisco Network Convergence System 4200 Series

Feature	Release & Platform
Upgrade YANG Models to YANG 1.1	Cisco IOS XE Dublin 17.10.1
	Cisco 1000 Series Integrated Services Routers
	Cisco 4000 Series Integrated Services Routers
	Cisco ASR 900 Aggregation Services Routers
	Cisco ASR 920 Aggregation Services Routers
	Cisco ASR 1000 Aggregation Services Routers
	Cisco Catalyst 9200 and 9200L Series Switches
	Cisco Catalyst 9300 and 9300L Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 and 9500-High Performance Series Switches
	Cisco Catalyst 9600 Series Switches
	Cisco Catalyst 9800-40 Wireless Controllers
	Cisco Catalyst 9800-80 Wireless Controllers
	Cisco cBR-8 Converged Broadband Router
	Cisco Cloud Services Router 1000V Series
	Cisco Network Convergence System 520 Series
	Cisco Network Convergence System 4200 Series
Converting IOS Commands to XML	Cisco IOS XE Cupertino 17.7.1
	This feature is supported on all platforms that support NETCONF-YANG.

Feature	Release & Platform
RESTCONF Protocol	Cisco IOS XE Everest 16.6.1
	Cisco 4000 Series Integrated Services Router
	Cisco ASR 1000 Aggregation Services Routers
	Cisco Cloud Services Router 1000V Series
	Cisco IOS XE Fuji 16.8.1a
	Cisco 1000 Series Integrated Services Routers
	Cisco ASR 900 Series Aggregation Services Routers
	Cisco ASR 920 Series Aggregation Services Router
	Cisco Catalyst 3650 Series Switches
	Cisco Catalyst 3850 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 and 9500-High Performance Series Switches
	Cisco cBR-8 Converged Broadband Router
	Cisco Network Convergence System 4200 Series
	Cisco IOS XE Fuji 16.9.2
	Cisco Catalyst 9200 Series Switches
	Cisco IOS XE Gibraltar 16.11.1
	Cisco Catalyst 9600 Series Switches
	Cisco Catalyst 9800-CL Wireless Controller for Cloud
	Cisco Catalyst 9800-40 Wireless Controllers
	Cisco Catalyst 9800-80 Wireless Controllers
	Cisco Network Convergence System 520 Series
	Cisco IOS XE Gibraltar 16.12.1
	Cisco Catalyst 9800-L Wireless Controllers
	Cisco IOS XE Amsterdam 17.3.1
	Cisco Catalyst 8200 Series Edge Platforms
	Cisco Catalyst 8300 Series Edge Platforms

Feature	Release & Platform
RESTCONF YANG-Patch Support	Cisco IOS XE Amsterdam 17.1.1
	Cisco 1000 Series Integrated Services Routers
	Cisco 4000 Series Integrated Services Routers
	Cisco ASR 900 Series Aggregation Services Routers
	Cisco ASR 1000 Aggregation Services Routers (ASR1000-RP2, ASR1000-RP3, ASR1001-HX, ASR1001-X, ASR1002-HX, ASR1002-X)
	Cisco Catalyst 9200 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco cBR-8 Converged Broadband Router
	Cisco Cloud Services Router 1000V Series
	Cisco Catalyst IE3200 Rugged Series
	Cisco Catalyst IE3300 Rugged Series
	Cisco Catalyst IE3400 Rugged Series
	Cisco IR1101 Integrated Services Router Rugged
	Cisco Network Convergence System 520 Series
	Cisco Network Convergence System 4200 Series

Feature	Release & Platform
NETCONF and RESTCONF Service-Level ACLs	Cisco IOS XE Gibraltar 16.11.1
	Cisco ASR 900 Series Aggregation Services Routers
	Cisco ASR 920 Series Aggregated Services Routers
	Cisco Catalyst 3650 Series Switches
	Cisco Catalyst 3850 Series Switches
	Cisco Catalyst 9200 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco Catalyst IE3200 Rugged Series
	Cisco Catalyst IE3300 Rugged Series
	Cisco Catalyst IE3400 Rugged Series
	Cisco Embedded Services 3300 Series Switches
	Cisco IR1101 Integrated Services Router Rugged
	Cisco Network Convergence System 4200 Series
	Cisco Network Convergence System 520 Series

Feature	Release & Platform
gNMI Protocol	Cisco IOS XE Fuji 16.8.1a
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco IOS XE Gibraltar 16.10.1
	Cisco Catalyst 9500-High Performance Series Switches
	Cisco IOS XE Gibraltar 16.11.1
	Cisco Catalyst 9600 Series Switches
	Cisco IOS XE Gibraltar 16.12.1
	Cisco Catalyst 9200 and 9200L Series Switches
	Cisco Catalyst 9300L SKUs
	Cisco cBR-8 Converged Broadband Router
	Cisco IOS XE Amsterdam 17.1.1
	Cisco ASR 900 Series Aggregation Services Routers
	Cisco ASR 920 Series Aggregation Services Router
	Cisco Network Convergence System 520 Series
	Cisco Network Convergence System 4200 Series
	Cisco IOS XE Amsterdam 17.2.1r
	Cisco ASR 1000 Series Aggregation Services Routers
	Cisco IOS XE Cupertino 17.8.1
	Cisco 1000 Series Integrated Services Routers
	Cisco 4000 Series Integrated Services Routers
	Cisco Catalyst 8200 Series Edge Platforms
	Cisco Catalyst 8300 Series Edge Platforms
	Cisco Catalyst 9800-CL Wireless Controller for Cloud
	Cisco Catalyst 9800-40 Wireless Controllers
	Cisco Catalyst 9800-80 Wireless Controllers

Feature	Release & Platform
gNMI IPv6 support	Cisco IOS XE Dublin 17.10.1
	Cisco Catalyst 9200, 9200L Series Switches
	Cisco Catalyst 9300, 9300L, 9300X Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 and 9500-High Performance Series Switches
	Cisco Catalyst 9600 Series Switches
gNMI Username and Password	Cisco IOS XE Gibraltar 16.12.1
Authentication	Cisco Catalyst 9200 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco Catalyst 9600 Series Switches
	Cisco Catalyst IE3200 Rugged Series
	Cisco Catalyst IE3200 Rugged Series
	Cisco Catalyst IE3300 Rugged Series
	Cisco Catalyst IE3400 Rugged Series
	Cisco Embedded Service 3300 Series Switches
PROTO Encoding	Cisco IOS XE Dublin 17.11.1
	<ul> <li>Cisco Catalyst 9200, 9200L, and 9200X Series Switches</li> </ul>
	<ul> <li>Cisco Catalyst 9300, 9300L, and 9300X Series Switches</li> </ul>
	Cisco Catalyst 9400 and 9400X Series Switches
	Cisco Catalyst 9500, 9500-High Performance, and 9500X Series Switches
	Cisco Catalyst 9600 Series Switches

Feature	Release & Platform
gRPC Network Operations Interface: gNOI Certificate Management & gNOI Bootstrapping with Certificate Service	Cisco IOS XE Amsterdam 17.3.1
	Cisco Catalyst 9200 Series Switches
Deciding with continuous services	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco Catalyst 9600 Series Switches
gNOI OS Installation Service	Cisco IOS XE Bengaluru 17.5.1
	Cisco Catalyst 9200 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco Catalyst 9600 Series Switches
gNOI Factory Reset Service	Cisco IOS XE Cupertino 17.7.1
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 and 9500-High Performance Series Switches
	Cisco Catalyst 9800-40 Wireless Controllers
	Cisco Catalyst 9800-80 Wireless Controllers
gNMI Dial-Out Using the gRPC Tunnel	Cisco IOS XE Dublin 17.11.1
Service	Cisco Catalyst 9200, 9200L, and 9200CX Series Switches
	Cisco Catalyst 9300, 9300L, and 9300X Series Switches
	Cisco Catalyst 9400 and 9400X Series Switches
	Cisco Catalyst 9500 and 9500-High Performance Series Switches
	Cisco Catalyst 9600 and 9600X Series Switches
	Cisco Network Convergence System 4200 Series

Feature	Release & Platform
Model-Based AAA	Cisco IOS XE Fuji 16.8.1
	Cisco 1000 Series Integrated Services Routers
	Cisco 4000 Series Integrated Services Routers
	Cisco ASR 1000 Series Aggregation Services Routers
	Cisco ASR 900 Series Aggregation Services Routers
	Cisco ASR 920 Series Aggregation Services Routers
	Cisco Cloud Services Router 1000v Series
	Cisco Network Convergence System 4200
	Cisco IOS XE Fuji 16.8.1a
	Cisco Catalyst 3650 Series Switches
	Cisco Catalyst 3850 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 Series Switches

Feature	Release & Platform
Model-Driven Telemetry NETCONF Dial-In	

Feature	Release & Platform
	Cisco IOS XE Everest 16.6.1
	Cisco Catalyst 3650 Series Switches
	Cisco Catalyst 3850 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco IOS XE Everest 16.6.2
	Cisco Catalyst 9400 Series Switches
	Cisco IOS XE Fuji 16.7.1
	Cisco 4000 Series Integrated Services Routers
	Cisco ASR 1000 Aggregation Services Routers (ASR1001-HX, ASR1001-X, ASR1002-HX, ASR1002-X
	Cisco IOS XE Fuji 16.8.1
	Cisco 1000 Series Integrated Services Routers
	Cisco ASR 1000 RP2 and RP3 Series Aggregation Services Routers
	Cisco IOS XE Fuji 16.8.1a
	Cisco Catalyst 9500-High Performance Series Switches
	Cisco IOS XE Fuji 16.9.1
	Cisco ASR 900 Series Aggregation Services Routers
	Cisco ASR 920 Series Aggregation Services Router
	Cisco cBR-8 Converged Broadband Router
	Cisco Network Convergence System 4200 Series
	Cisco IOS XE Fuji 16.9.2
	Cisco Catalyst 9200 and 9200L Series Switches
	Cisco Catalyst 9300L SKUs
	Cisco IOS XE Gibraltar 16.10.1
	Cisco Cloud Services Router 1000v
	Cisco Network Convergence System 520 Series
	Cisco IOS XE Gibraltar 16.11.1
	Cisco Catalyst 9600 Series Switches

Feature	Release & Platform
	Cisco IOS XE Amsterdam 17.3.1
	Cisco Catalyst 8200 Series Edge Platforms
	Cisco Catalyst 8300 Series Edge Platforms
Model-Driven Telemetry gRPC	Cisco IOS XE Gibraltar 16.10.1
Dial-out	Cisco 1000 Series Integrated Services Routers
	Cisco 4000 Series Integrated Services Routers
	Cisco ASR 1000 Series Aggregation Services Routers
	Cisco ASR 900 Series Aggregation Services Routers
	Cisco ASR 920 Series Aggregated Services Router
	Cisco Catalyst 9200 and 9200L Series Switches
	Cisco Catalyst 9300 and 9300L Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 and 9500-High Performance Series Switches
	Cisco cBR-8 Converged Broadband Router
	Cisco Cloud Services Router 1000V Series
	Cisco Network Convergence System 520 Series
	Cisco Network Convergence System 4200 Series
	Cisco IOS XE Gibraltar 16.11.1
	Cisco Catalyst 9600 Series Switches
	Cisco IOS XE Amsterdam 17.3.1
	Cisco Catalyst 8200 Series Edge Platforms
	Cisco Catalyst 8300 Series Edge Platforms

Feature	Release & Platform
Model-Driven Telemetry gNMI Dial-In	Cisco IOS XE Gibraltar 16.12.1
	Cisco Catalyst 9200 and 9200L Series Switches
	Cisco Catalyst 9300 and 9300L Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 and 9500-High Performance Series Switches
	Cisco Catalyst 9600 Series Switches
	Cisco cBR-8 Converged Broadband Router
	Cisco IOS XE Amsterdam 17.1.1
	Cisco ASR 900 Series Aggregation Services Routers
	Cisco ASR 920 Series Aggregated Services Router
	Cisco Network Convergence System 520 Series
	Cisco Network Convergence System 4200 Series
	Cisco IOS XE Amsterdam 17.2.1
	Cisco ASR 1000 Series Aggregation Services Routers
	Cisco IOS XE Amsterdam 17.3.1
	Cisco ASR 1000 Series Aggregation Services Routers
	Cisco IOS XE Cupertino 17.8.1
	Cisco 1000 Series Integrated Services Routers
	Cisco 4000 Series Integrated Services Routers
	Cisco Catalyst 8200 Series Edge Platforms
	Cisco Catalyst 8300 Series Edge Platforms

Feature	Release & Platform
TLS for gRPC Dial-Out	Cisco IOS XE Amsterdam 17.1.1
	Cisco 1000 Series Integrated Services Routers
	Cisco 4000 Series Integrated Services Routers
	Cisco ASR 900 Series Aggregation Services Routers
	Cisco ASR 1000 Series Aggregation Services Routers ASR1000-RP1, ASR1000-RP2, ASR1000-RP3, ASR1001-HX, ASR1001-X, ASR1002-HX, ASR1002-X)
	Cisco Catalyst 9200 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 and 9500-High Performance Series Switches
	Cisco Catalyst 9600 Series Switches
	Cisco cBR-8 Converged Broadband Router
	Cisco Cloud Services Router 1000V Series
	Cisco Catalyst IE3200 Rugged Series
	Cisco Catalyst IE3300 Rugged Series
	Cisco Catalyst IE3400 Rugged Series
	Cisco IR1101 Integrated Services Router Rugged
	Cisco Network Convergence System 520 Series
	Cisco Network Convergence System 4200 Series
Address Resolution Protocol	Cisco IOS XE 17.14.1
On-Change Notification	Cisco Catalyst 9200 and 9200L Series Switches
	Cisco Catalyst 9300 and 9300X Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco Catalyst 9600 Series Switches

Feature	Release & Platform
gNMI: Stream Subscriptions with On-Change Mode	Cisco IOS XE Amsterdam 17.14.1
	Cisco 1000 Series Integrated Services Routers
	Cisco Catalyst IE3200 Rugged Series
	Cisco Catalyst IE3300 Rugged Series
	Cisco Catalyst IE3400 Rugged Series
	Cisco Catalyst IR1101 Rugged Series Router
	Cisco Catalyst 9200 and 9200L Series Switches
	Cisco Catalyst 9300 and 9300L Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco Catalyst 9600 Series Switches
	Cisco Catalyst 9800-CLWireless Controller for Cloud
	Cisco Catalyst 9800-40 Wireless Controllers
	Cisco Catalyst 9800-80 Wireless Controllers
	Cisco Cloud Services Router 1000V Series
	Cisco Embedded Services 3300 Series
	Cisco ESR6300 Embedded Series Router

Feature	Release & Platform
gNMI sync_response Message	Cisco IOS XE Amsterdam 17.14.1
	Cisco 1000 Series Integrated Services Routers
	Cisco Catalyst IE3200 Rugged Series
	Cisco Catalyst IE3300 Rugged Series
	Cisco Catalyst IE3400 Rugged Series
	Cisco Catalyst IR1101 Rugged Series Router
	Cisco Catalyst 9200 and 9200L Series Switches
	Cisco Catalyst 9300 and 9300L Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 and 9500-High Performance Series Switches
	Cisco Catalyst 9600 Series Switches
	Cisco Catalyst 9800-CLWireless Controller for Cloud
	Cisco Catalyst 9800-40 Wireless Controllers
	Cisco Catalyst 9800-80 Wireless Controllers
	Cisco Cloud Services Router 1000V Series
	Cisco Embedded Services 3300 Series
	Cisco ESR6300 Embedded Series Router
TLDP On-Change Notifications	Cisco IOS XE Amsterdam 17.2.1
	Cisco 4000 Series Integrated Services Routers
	Cisco Catalyst 9200 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 Series Switches
Subscription Dampening Period for	Cisco IOS XE Dublin 17.11.1
On-Change Telemetry	Cisco Catalyst 9800-CL Series Wireless Controller for Cloud
	Cisco Catalyst 9800-40 Series Wireless Controller
	Cisco Catalyst 9800-80 Series Wireless Controller

Feature	Release & Platform
Kill Telemetry Subscription	Cisco IOS XE Gibraltar 16.11.1
	Cisco ASR 900 Series Aggregation Services Routers
	Cisco ASR 920 Series Aggregated Services Routers
	Cisco Catalyst 3650 Series Switches
	Cisco Catalyst 3850 Series Switches
	Cisco Catalyst 9200 Series Switches
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco IR1101 Integrated Services Router Rugged
	Cisco Network Convergence System 4200 Series
	Cisco Network Convergence System 520 Series
	Cisco IOS XE Gibraltar 16.11.1a
	Cisco 1000 Series Integrated Services Routers
	Cisco 4000 Series Integrated Services Routers
	Cisco ASR 1000 Series Aggregation Services Routers
	Cisco ASR 900 Series Aggregation Services Routers
	Cisco ASR 920 Series Aggregation Services Routers
	Cisco Cloud Services Router 1000V Series
FQDN Support for gRPC Subscriptions	Cisco IOS XE Bengaluru 17.6.1
	Cisco ASR 900 Series Aggregation Services Routers (RSP2)
	Cisco Catalyst 9200 Series Switches
	Cisco Catalyst 9800-40 Wireless Controllers
	Cisco Catalyst 9800-80 Wireless Controllers
Leaf-Level Filtering	Cisco IOS XE Cupertino 17.7.1
	Cisco Catalyst 9300 and 9300L Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 and 9500-High Performance Series Switches
	Cisco Catalyst 9600 Series Switches

Feature	Release & Platform
Mutual Authentication for gRPC Telemetry	Cisco IOS XE Cupertino 17.9.1
	Cisco Catalyst 9800-CL Series Wireless Controller for Cloud
	Cisco Catalyst 9800-40 Series Wireless Controller
	Cisco Catalyst 9800-80 Series Wireless Controller
Pubd Restartability	Cisco IOS XE Cupertino 17.9.1
	Cisco 1000 Series Integrated Services Routers
	Cisco 4000 Series Integrated Services Routers
	Cisco ASR 1000 Series Aggregation Services Routers
	Cisco ASR 900 Series Aggregation Services Routers
	Cisco ASR 920 Series Aggregated Services Router
	Cisco Catalyst 9200 and 9200L Series Switches
	Cisco Catalyst 9300 and 9300L Series Switches
	Cisco Catalyst 9400 Series Switches
	Cisco Catalyst 9500 and 9500-High Performance Series Switches
	Cisco Catalyst 9600 Series Switches
	Cisco Catalyst 9800-CL Series Wireless Controller for Cloud
	Cisco Catalyst 9800-40 Series Wireless Controller
	Cisco Catalyst 9800-80 Series Wireless Controller
	Cisco cBR-8 Converged Broadband Router
	Cisco Cloud Services Router 1000V Series
	Cisco Network Convergence System 520 Series
	Cisco Network Convergence System 4200 Series

Feature	Release & Platform
In-Service Model Updates	Cisco IOS XE Everest 16.5.1a
	Cisco Catalyst 9300 Series Switches
	Cisco Catalyst 9500 Series Switches
	Cisco IOS XE Everest 16.5.1b
	Cisco 4000 Series Integrated Services Routers
	Cisco IOS XE Everest 16.6.1
	Cisco Catalyst 3650 Series Switches
	Cisco Catalyst 3850 Series Switches
	Cisco IOS XE Everest 16.6.2
	Cisco Catalyst 9400 Series Switches
	Cisco IOS XE Fuji 16.7.1
	Cisco ASR 1000 Aggregation Services Routers
	Cisco IOS XE Fuji 16.8.1a
	Cisco Catalyst 9500-High Performance Series Switches.
Application Hosting	
Application Hosting	Cisco IOS XE Gibraltar 16.12.1
	Cisco Catalyst 9300 Series Switches
	Cisco IOS XE Amsterdam 17.1.1
	Cisco Catalyst 9400 Series Switches
	Cisco IOS XE Amsterdam 17.2.1
	Cisco Catalyst 9500-High Performance Series Switches
	Cisco Catalyst 9600 Series Switches
	Cisco IOS XE Bengaluru 17.5.1
	Cisco Catalyst 9410 Series Switches
	Cisco IOS XE Cupertino 17.7.1
	Cisco Catalyst 9500-X Series Switches

Feature	Release & Platform
Application Hosting: Front-Panel Network Port Access	Cisco IOS XE Gibraltar 16.12.1
	Cisco Catalyst 9300 Series Switches
	Cisco IOS XE Amsterdam 17.1.1
	Cisco Catalyst 9400 Series Switches
	Note Cisco Catalyst 9410R Switch does not support front-panel application-hosting.
Application Hosting: Front-Panel USB	Cisco IOS XE Gibraltar 16.12.1
Port Access	Cisco Catalyst 9300 Series Switches
	Cisco IOS XE Amsterdam 17.1.1
	Cisco Catalyst 9400 Series Switches
	Note Cisco Catalyst 9410R Switch does not support front-panel application-hosting.
Native Docker Container: Application	Cisco IOS XE Amsterdam 17.2.1
Auto-Restart	Cisco Catalyst 9300 Series Switches
	Cisco IOS XE Bengaluru 17.5.1
	Cisco Catalyst 9410 Series Switches
Application Hosting: ERSPAN Support	Cisco IOS XE Dublin 17.10.1
on the AppGigabitEthernet Port	Cisco Catalyst 9300, 9300L, 9300X Series Switches
	Cisco Catalyst 9400 Series Switches
Multicast Routing on the	Cisco IOS XE Dublin 17.11.1
AppGigabitEthernet Port	Cisco Catalyst 9300, 9300L, 9300X Series Switches
	Cisco Catalyst 9400 and 9400X Series Switches
	Cisco Catalyst 9500-High Performance Series Switches
	Cisco Catalyst 9600 and 9600X Series Switches

Feature	Release & Platform
Application Hosting: ThousandEyes Integration	Cisco IOS XE Amsterdam 17.3.3  • Cisco Catalyst 9300 and 9300L Series Switches
	Cisco IOS XE Bengaluru 17.5.1
	Cisco Catalyst 9400 Series Switches
	Cisco IOS XE Bengaluru 17.6.1
	Cisco Catalyst 9300X Series Switches
ThousandEyes BrowserBot	Cisco IOS XE Bengaluru 17.6.1
	Cisco Catalyst 9300, 9300L, and 9300X Series Switches
	Cisco Catalyst 9400 Series Switches

**New and Changed Information**