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 & Platform
	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 IOS XE Fuji 16.8.1a • Cisco Catalyst 9500-High Performance Series Switches Cisco IOS XE Fuji 16.8.2 • Cisco ASR 1000 Series Aggregation Services Routers (ASR1004, ASR1006, ASR1006-X, ASR1009-X, ASR1013) 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 Catalyst 9800-40 Wireless Controllers • Cisco Catalyst 9800-80 Wireless Controllers Cisco IOS XE Amsterdam 17.2.1 • Cisco Cloud Services Router 1000V Series • Cisco C1100 Terminal Services Gateway (Supported only on C1100TGX-1N24P32A) Cisco IOS XE Amsterdam 17.3.1 • Cisco Catalyst 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 Download	Cisco IOS XE Fuji 16.8.1 • 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 Provisioning	Cisco IOS XE Fuji 16.9.1 • 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 YANG Models	Cisco IOS XE Cupertino 17.7.1 • 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 Session	Cisco IOS XE Fuji 16.8.1a • 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 Configuration Database	Cisco IOS XE Bengaluru 17.4.1 • 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 Authentication	Cisco IOS XE Gibraltar 16.12.1 • 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 • 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 • Cisco Catalyst 9200, 9200L, and 9200X Series Switches • Cisco Catalyst 9300, 9300L, and 9300X Series Switches • 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 • 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 Service	Cisco IOS XE Dublin 17.11.1 • 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 Dial-out	Cisco IOS XE Gibraltar 16.10.1 • 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 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 On-Change Notification	Cisco IOS XE 17.14.1 • 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 On-Change Telemetry	Cisco IOS XE Dublin 17.11.1 • 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 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.
Native Docker Container: Application Auto-Restart	Cisco IOS XE Amsterdam 17.2.1 • Cisco Catalyst 9300 Series Switches Cisco IOS XE Bengaluru 17.5.1 • Cisco Catalyst 9410 Series Switches
Application Hosting: ERSPAN Support on the AppGigabitEthernet Port	Cisco IOS XE Dublin 17.10.1 • Cisco Catalyst 9300, 9300L, 9300X Series Switches • Cisco Catalyst 9400 Series Switches
Multicast Routing on the AppGigabitEthernet Port	Cisco IOS XE Dublin 17.11.1 • 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