



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 |
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| | <p>Cisco IOS XE Everest 16.5.1a</p> <ul style="list-style-type: none"> • Cisco Catalyst 3650 Series Switches • Cisco Catalyst 3850 Series Switches • Cisco Catalyst 9300 Series Switches • Cisco Catalyst 9500 Series Switches <p>Cisco IOS XE Everest 16.5.1b</p> <ul style="list-style-type: none"> • Cisco 4000 Series Integrated Services Routers <p>Cisco IOS XE Everest 16.6.2</p> <ul style="list-style-type: none"> • Cisco Catalyst 9400 Series Switches <p>Cisco IOS XE Fuji 16.7.1</p> <ul style="list-style-type: none"> • Cisco ASR 1000 Aggregation Services Routers (ASR1001-X, ASR1001-HX, ASR1002-X, ASR1002-HX) <p>Cisco IOS XE Fuji 16.8.1a</p> <ul style="list-style-type: none"> • Cisco Catalyst 9500-High Performance Series Switches <p>Cisco IOS XE Fuji 16.8.2</p> <ul style="list-style-type: none"> • Cisco ASR 1000 Series Aggregation Services Routers (ASR1004, ASR1006, ASR1006-X, ASR1009-X, ASR1013) <p>Cisco IOS XE Gibraltar 16.12.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9200 Series Switches <p>Note This feature is not supported on C9200L SKUs.</p> <ul style="list-style-type: none"> • Cisco Catalyst 9300L SKUs • Cisco Catalyst 9600 Series Switches • Cisco Catalyst 9800-40 Wireless Controllers • Cisco Catalyst 9800-80 Wireless Controllers <p>Cisco IOS XE Amsterdam 17.2.1</p> <ul style="list-style-type: none"> • Cisco Cloud Services Router 1000V Series • Cisco C1100 Terminal Services Gateway (Supported only on C1100TGX-1N24P32A) <p>Cisco IOS XE Amsterdam 17.3.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 8200 Series Edge Platforms |

| Feature | Release & Platform |
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| | <ul style="list-style-type: none"> • Cisco Catalyst 8300 Series Edge Platforms • Cisco Catalyst 8500 and 8500L Series Edge Platforms <p>Cisco IOS XE Bengaluru 17.4.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 8000V Edge Software |
| Zero Touch Provisioning: HTTP Download | <p>Cisco IOS XE Fuji 16.8.1</p> <ul style="list-style-type: none"> • 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 <p>Cisco IOS XE Fuji 16.8.1a</p> <ul style="list-style-type: none"> • Cisco Catalyst 9500-High Performance Series Switches |
| DHCPv6 Support for Zero-Touch Provisioning | <p>Cisco IOS XE Fuji 16.9.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9300 Series Switches • Cisco Catalyst 9500 Series Switches <p>Cisco IOS XE Amsterdam 17.3.2a</p> <ul style="list-style-type: none"> • Cisco Catalyst 9800-40 Series Wireless Controllers • Cisco Catalyst 9800-80 Series Wireless Controllers |

| Feature | Release & Platform |
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| iPXE | <p>Cisco IOS XE Denali 16.3.2 and Cisco IOS XE Everest 16.5.1a</p> <ul style="list-style-type: none">• Cisco Catalyst 3650 Series Switches• Cisco Catalyst 3650 Series Switches <p>Cisco IOS XE Everest 16.6.1</p> <ul style="list-style-type: none">• Cisco Catalyst 9300 Series Switches• Cisco Catalyst 9500 Series Switches <p>Cisco IOS XE Everest 16.6.2</p> <ul style="list-style-type: none">• Cisco Catalyst 9400 Series Switches <p>Cisco IOS XE Fuji 16.8.1a</p> <ul style="list-style-type: none">• Cisco Catalyst 9500-High Performance Series Switches <p>Cisco IOS XE Fuji 16.9.2</p> <ul style="list-style-type: none">• Cisco Catalyst 9200 Series Switches <p>Cisco IOS XE Gibraltar 16.11.1</p> <ul style="list-style-type: none">• Cisco Catalyst 9600 Series Switches |
| Shells and Scripting | |

| Feature | Release & Platform |
|-------------|--|
| Guest Shell | <p>Cisco IOS XE Everest 16.5.1a</p> <ul style="list-style-type: none"> • Cisco Catalyst 3650 Series Switches • Cisco Catalyst 3850 Series Switches • Cisco Catalyst 9300 Series Switches • Cisco Catalyst 9500 Series Switches <p>Cisco IOS XE Everest 16.5.1b</p> <ul style="list-style-type: none"> • Cisco 4000 Series Integrated Services Routers <p>Cisco IOS XE Everest 16.6.2</p> <ul style="list-style-type: none"> • Cisco Catalyst 9400 Series Switches <p>Cisco IOS XE Fuji 16.7.1</p> <ul style="list-style-type: none"> • Cisco ASR 1000 Aggregation Services Routers (ASR1001-X, ASR1001-HX, ASR1002-X, ASR1002-HX) • Cisco Cloud Services Router 1000V Series <p>Cisco IOS XE Fuji 16.8.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9500-High Performance Series Switches <p>Cisco IOS XE Fuji 16.9.1</p> <ul style="list-style-type: none"> • Cisco 1000 Series Integrated Services Routers <p>Cisco IOS XE Gibraltar 16.11.1b</p> <ul style="list-style-type: none"> • Cisco Catalyst 9800-40 Wireless Controllers • Cisco Catalyst 9800-80 Wireless Controllers <p>Cisco IOS XE Gibraltar 16.12.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9200 Series Switches <p>Note This feature is not supported on C9200L SKUs.</p> <ul style="list-style-type: none"> • Cisco Catalyst 9300L SKUs • Cisco Catalyst 9600 Series Switches <p>Cisco IOS XE Amsterdam 17.3.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 8200 Series Edge Platforms • Cisco Catalyst 8300 Series Edge Platforms • Cisco Catalyst 8500 and 8500L Series Edge Platforms |

| Feature | Release & Platform |
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| Python 3 Support in Guest Shell | <p>Cisco IOS XE Amsterdam 17.1.1</p> <ul style="list-style-type: none"> • 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 |
| Python APIs | <p>Cisco IOS XE Everest 16.5.1a</p> <ul style="list-style-type: none"> • Cisco Catalyst 3650 Series Switches • Cisco Catalyst 3850 Series Switches • Cisco Catalyst 9300 Series Switches • Cisco Catalyst 9500 Series Switches <p>Cisco IOS XE Everest 16.5.1b</p> <ul style="list-style-type: none"> • Cisco 4000 Series Integrated Services Routers <p>Cisco IOS XE Everest 16.6.2</p> <ul style="list-style-type: none"> • Cisco Catalyst 9400 Series Switches <p>Cisco IOS XE Fuji 16.7.1</p> <ul style="list-style-type: none"> • Cisco ASR 1000 Aggregation Services Routers (ASR1001-X, ASR1001-HX, ASR1002-X, ASR1002-HX) • Cisco Cloud Services Router 1000V Series <p>Cisco IOS XE Fuji 16.8.1a</p> <ul style="list-style-type: none"> • Cisco Catalyst 9500-High Performance Series Switches |

| Feature | Release & Platform |
|-------------------|--|
| Python CLI Module | <p>Cisco IOS XE Everest 16.5.1a</p> <ul style="list-style-type: none"> • Cisco Catalyst 3650 Series Switches • Cisco Catalyst 3850 Series Switches • Cisco Catalyst 9300 Series Switches • Cisco Catalyst 9500 Series Switches <p>Cisco IOS XE Everest 16.5.1b</p> <ul style="list-style-type: none"> • Cisco 4000 Series Integrated Services Routers <p>Cisco IOS XE Everest 16.6.2</p> <ul style="list-style-type: none"> • Cisco Catalyst 9400 Series Switches <p>Cisco IOS XE Fuji 16.7.1</p> <ul style="list-style-type: none"> • Cisco ASR 1000 Aggregation Services Routers (ASR1001-X, ASR1001-HX, ASR1002-X, ASR1002-HX) • Cisco Cloud Services Router 1000V Series <p>Cisco IOS XE Fuji 16.8.1</p> <ul style="list-style-type: none"> • 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) <p>Cisco IOS XE Fuji 16.8.1a</p> <ul style="list-style-type: none"> • Cisco Catalyst 9500-High Performance Series Switches |

| Feature | Release & Platform |
|------------------------------|---|
| EEM Python Module | <p>Cisco IOS XE Everest 16.5.1a</p> <ul style="list-style-type: none"> • Cisco Catalyst 3650 Series Switches • Cisco Catalyst 3850 Series Switches • Cisco Catalyst 9300 Series Switches • Cisco Catalyst 9500 Series Switches <p>Cisco IOS XE Everest 16.5.1b</p> <ul style="list-style-type: none"> • Cisco 4000 Series Integrated Services Routers <p>Cisco IOS XE Everest 16.6.2.</p> <ul style="list-style-type: none"> • Cisco Catalyst 9400 Series Switches <p>Cisco IOS XE Fuji 16.7.1</p> <ul style="list-style-type: none"> • Cisco ASR 1000 Aggregation Services Routers (ASR1001-X, ASR1001-HX, ASR1002-X, ASR1002-HX) • Cisco Cloud Services Router 1000V Series <p>Cisco IOS XE Fuji 16.8.1a</p> <ul style="list-style-type: none"> • Cisco Catalyst 9500-High Performance Series Switches |
| Model-Driven Programmability | |

| Feature | Release & Platform |
|------------------|--------------------|
| NETCONF Protocol | |

| Feature | Release & Platform |
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| | <p>Cisco IOS XE Denali 16.3.1</p> <ul style="list-style-type: none"> • Cisco 4000 Series Integrated Services Routers • Cisco ASR 1000 Series Aggregation Services Routers • Cisco Cloud Services Router 1000V Series <p>Cisco IOS XE Everest 16.5.1a</p> <ul style="list-style-type: none"> • Cisco Catalyst 3650 Series Switches • Cisco Catalyst 3850 Series Switches <p>Cisco IOS XE Everest 16.6.2</p> <ul style="list-style-type: none"> • Cisco Catalyst 9300 Series Switches • Cisco Catalyst 9400 Series Switches • Cisco Catalyst 9500 Series Switches <p>Cisco IOS XE Fuji 16.8.1a</p> <ul style="list-style-type: none"> • Cisco 1000 Series Integrated Services Routers • Cisco ASR 900 Series Aggregation Services Routers • Cisco ASR 920 Series Aggregation Services Routers • Cisco Catalyst 9500-High Performance Series Switches • Cisco cBR-8 Converged Broadband Router • Cisco Network Convergence System 4200 Series <p>Cisco IOS XE Fuji 16.9.2</p> <ul style="list-style-type: none"> • Cisco Catalyst 9200 and 9200L Series Switches • Cisco Catalyst 9300L SKUs <p>Cisco IOS XE Gibraltar 16.10.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9800-40 Wireless Controllers • Cisco Catalyst 9800-80 Wireless Controllers • Cisco Network Convergence System 520 Series <p>Cisco IOS XE Gibraltar 16.11.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9600 Series Switches <p>Cisco IOS XE Gibraltar 16.12.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9800-L Wireless Controllers |

| Feature | Release & Platform |
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| | Cisco IOS XE Amsterdam 17.3.1 <ul style="list-style-type: none"> • Cisco Catalyst 8200 Series Edge Platforms • Cisco Catalyst 8300 Series Edge Platforms • Cisco Catalyst 8500 and 8500L Series Edge Platforms |
| NETCONF and RESTCONF IPv6 Support | Cisco IOS XE Fuji 16.8.1a <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Cisco Catalyst 9500-High Performance Series Switches |
| NETCONF Global Lock and Kill Session | Cisco IOS XE Fuji 16.8.1a <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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 |
| Side-Effect Synchronization of the Configuration Database | Cisco IOS XE Bengaluru 17.4.1 <ul style="list-style-type: none"> • Cisco ASR 1000 Series Aggregated Services Routers • Cisco Catalyst 8500 and 8500L Series Edge Platforms • Cisco Catalyst 9300 Series Switches • Cisco Catalyst 9400 Series Switches • Cisco Catalyst 9500 Series Switches • Cisco Catalyst 9600 Series Switches |

| Feature | Release & Platform |
|-------------------|--------------------|
| RESTCONF Protocol | |

| Feature | Release & Platform |
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| | <p>Cisco IOS XE Everest 16.6.1</p> <ul style="list-style-type: none"> • Cisco 4000 Series Integrated Services Router • Cisco ASR 1000 Aggregation Services Routers • Cisco Cloud Services Router 1000V Series <p>Cisco IOS XE Fuji 16.8.1a</p> <ul style="list-style-type: none"> • 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 <p>Cisco IOS XE Fuji 16.9.2</p> <ul style="list-style-type: none"> • Cisco Catalyst 9200 Series Switches <p>Cisco IOS XE Gibraltar 16.11.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9600 Series Switches • Cisco Catalyst 9800-CL Wireless Controllers • Cisco Catalyst 9800-40 Wireless Controllers • Cisco Catalyst 9800-80 Wireless Controllers • Cisco Network Convergence System 520 Series <p>Cisco IOS XE Gibraltar 16.12.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9800-L Wireless Controllers <p>Cisco IOS XE Amsterdam 17.3.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 8200 Series Edge Platforms • Cisco Catalyst 8300 Series Edge Platforms • Cisco Catalyst 8500 and 8500L Series Edge Platforms |

| Feature | Release & Platform |
|-----------------------------|---|
| | Cisco IOS XE Bengaluru 17.4.1 <ul style="list-style-type: none"> • Cisco Catalyst 8000V Edge Software |
| RESTCONF YANG-Patch Support | Cisco IOS XE Amsterdam 17.1.1 <ul style="list-style-type: none"> • 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 |
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| NETCONF and RESTCONF Service-Level ACLs | Cisco IOS XE Gibraltar 16.11.1 <ul style="list-style-type: none">• 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 | <p>Cisco IOS XE Fuji 16.8.1a</p> <ul style="list-style-type: none"> • Cisco Catalyst 9300 Series Switches • Cisco Catalyst 9400 Series Switches • Cisco Catalyst 9500 Series Switches <p>Cisco IOS XE Gibraltar 16.10.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9500-High Performance Series Switches <p>Cisco IOS XE Gibraltar 16.11.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9600 Series Switches <p>Cisco IOS XE Gibraltar 16.12.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9200 and 9200L Series Switches • Cisco Catalyst 9300L SKUs • Cisco cBR-8 Converged Broadband Router <p>Cisco IOS XE Amsterdam 17.1.1</p> <ul style="list-style-type: none"> • 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 <p>Cisco IOS XE Amsterdam 17.2.1r</p> <ul style="list-style-type: none"> • Cisco ASR 1000 Series Aggregation Services Routers <p>Cisco IOS XE Amsterdam 17.3.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 8500 and 8500L Series Edge Platform |

| Feature | Release & Platform |
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| gNMI Username and Password Authentication | Cisco IOS XE Gibraltar 16.12.1 <ul style="list-style-type: none">• 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 |
| gRPC Network Operations Interface: gNOI Certificate Management & gNOI Bootstrapping with Certificate Service | Cisco IOS XE Amsterdam 17.3.1 <ul style="list-style-type: none">• 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 |

| Feature | Release & Platform |
|-----------------|---|
| Model-Based AAA | <p data-bbox="776 289 1052 321">Cisco IOS XE Fuji 16.8.1</p> <ul data-bbox="813 338 1409 680" style="list-style-type: none"><li data-bbox="813 338 1325 369">• Cisco 1000 Series Integrated Services Routers<li data-bbox="813 390 1325 422">• Cisco 4000 Series Integrated Services Routers<li data-bbox="813 443 1409 474">• Cisco ASR 1000 Series Aggregation Services Routers<li data-bbox="813 495 1395 527">• Cisco ASR 900 Series Aggregation Services Routers<li data-bbox="813 548 1395 579">• Cisco ASR 920 Series Aggregation Services Routers<li data-bbox="813 600 1284 632">• Cisco Cloud Services Router 1000v Series<li data-bbox="813 653 1284 684">• Cisco Network Convergence System 4200 <p data-bbox="776 716 1065 747">Cisco IOS XE Fuji 16.8.1a</p> <ul data-bbox="813 764 1219 995" style="list-style-type: none"><li data-bbox="813 764 1219 795">• Cisco Catalyst 3650 Series Switches<li data-bbox="813 816 1219 848">• Cisco Catalyst 3850 Series Switches<li data-bbox="813 869 1219 900">• Cisco Catalyst 9300 Series Switches<li data-bbox="813 921 1219 953">• Cisco Catalyst 9400 Series Switches<li data-bbox="813 974 1219 1005">• Cisco Catalyst 9500 Series Switches |

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

| Feature | Release & Platform |
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| | <p>Cisco IOS XE Everest 16.6.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 3650 Series Switches • Cisco Catalyst 3850 Series Switches • Cisco Catalyst 9300 Series Switches • Cisco Catalyst 9500 Series Switches <p>Cisco IOS XE Everest 16.6.2</p> <ul style="list-style-type: none"> • Cisco Catalyst 9400 Series Switches <p>Cisco IOS XE Fuji 16.7.1</p> <ul style="list-style-type: none"> • Cisco 4000 Series Integrated Services Routers • Cisco ASR 1000 Aggregation Services Routers (ASR1001-HX, ASR1001-X, ASR1002-HX, ASR1002-X) <p>Cisco IOS XE Fuji 16.8.1</p> <ul style="list-style-type: none"> • Cisco 1000 Series Integrated Services Routers • Cisco ASR 1000 RP2 and RP3 Series Aggregation Services Routers <p>Cisco IOS XE Fuji 16.8.1a</p> <ul style="list-style-type: none"> • Cisco Catalyst 9500-High Performance Series Switches <p>Cisco IOS XE Fuji 16.9.1</p> <ul style="list-style-type: none"> • 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 <p>Cisco IOS XE Fuji 16.9.2</p> <ul style="list-style-type: none"> • Cisco Catalyst 9200 and 9200L Series Switches • Cisco Catalyst 9300L SKUs <p>Cisco IOS XE Gibraltar 16.10.1</p> <ul style="list-style-type: none"> • Cisco Cloud Services Router 1000v • Cisco Network Convergence System 520 Series <p>Cisco IOS XE Gibraltar 16.11.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9600 Series Switches |

| Feature | Release & Platform |
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| | <p>Cisco IOS XE Amsterdam 17.3.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 8200 Series Edge Platforms • Cisco Catalyst 8300 Series Edge Platforms • Cisco Catalyst 8500 and 8500L Series Edge Platforms <p>Cisco IOS XE Bengaluru 17.4.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 8000V Edge Software |
| <p>Model-Driven Telemetry gRPC Dial-out</p> | <p>Cisco IOS XE Gibraltar 16.10.1</p> <ul style="list-style-type: none"> • 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 eBR-8 Converged Broadband Router • Cisco Cloud Services Router 1000V Series • Cisco Network Convergence System 520 Series • Cisco Network Convergence System 4200 Series <p>Cisco IOS XE Gibraltar 16.11.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9600 Series Switches <p>Cisco IOS XE Amsterdam 17.3.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 8200 Series Edge Platforms • Cisco Catalyst 8300 Series Edge Platforms • Cisco Catalyst 8500 and 8500L Series Edge Platforms <p>Cisco IOS XE Bengaluru 17.4.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 8000V Edge Software |

| Feature | Release & Platform |
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| Model-Driven Telemetry gNMI Dial-In | <p data-bbox="776 289 1117 317">Cisco IOS XE Gibraltar 16.12.1</p> <ul data-bbox="813 338 1425 657" style="list-style-type: none"> <li data-bbox="813 338 1338 365">• Cisco Catalyst 9200 and 9200L Series Switches <li data-bbox="813 388 1338 415">• Cisco Catalyst 9300 and 9300L Series Switches <li data-bbox="813 438 1219 466">• Cisco Catalyst 9400 Series Switches <li data-bbox="813 489 1425 552">• Cisco Catalyst 9500 and 9500-High Performance Series Switches <li data-bbox="813 575 1219 602">• Cisco Catalyst 9600 Series Switches <li data-bbox="813 625 1292 653">• Cisco cBR-8 Converged Broadband Router <p data-bbox="776 688 1130 716">Cisco IOS XE Amsterdam 17.1.1</p> <ul data-bbox="813 737 1393 926" style="list-style-type: none"> <li data-bbox="813 737 1393 764">• Cisco ASR 900 Series Aggregation Services Routers <li data-bbox="813 787 1373 814">• Cisco ASR 920 Series Aggregated Services Router <li data-bbox="813 837 1338 865">• Cisco Network Convergence System 520 Series <li data-bbox="813 888 1352 915">• Cisco Network Convergence System 4200 Series <p data-bbox="776 951 1130 978">Cisco IOS XE Amsterdam 17.2.1</p> <ul data-bbox="813 999 1406 1026" style="list-style-type: none"> <li data-bbox="813 999 1406 1026">• Cisco ASR 1000 Series Aggregation Services Routers <p data-bbox="776 1062 1130 1089">Cisco IOS XE Amsterdam 17.3.1</p> <ul data-bbox="813 1110 1406 1138" style="list-style-type: none"> <li data-bbox="813 1110 1406 1138">• Cisco ASR 1000 Series Aggregation Services Routers |

| Feature | Release & Platform |
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| TLS for gRPC Dial-Out | Cisco IOS XE Amsterdam 17.1.1 <ul style="list-style-type: none"> • 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 |
| TLDP On-Change Notifications | Cisco IOS XE Amsterdam 17.2.1 <ul style="list-style-type: none"> • 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 |

| Feature | Release & Platform |
|-----------------------------|--|
| Kill Telemetry Subscription | <p data-bbox="776 289 1117 321">Cisco IOS XE Gibraltar 16.11.1</p> <ul data-bbox="813 338 1393 884" style="list-style-type: none"> <li data-bbox="813 338 1393 369">• Cisco ASR 900 Series Aggregation Services Routers <li data-bbox="813 386 1393 417">• Cisco ASR 920 Series Aggregated Services Routers <li data-bbox="813 434 1219 466">• Cisco Catalyst 3650 Series Switches <li data-bbox="813 483 1219 514">• Cisco Catalyst 3850 Series Switches <li data-bbox="813 531 1219 562">• Cisco Catalyst 9200 Series Switches <li data-bbox="813 579 1219 611">• Cisco Catalyst 9300 Series Switches <li data-bbox="813 627 1219 659">• Cisco Catalyst 9400 Series Switches <li data-bbox="813 676 1219 707">• Cisco Catalyst 9500 Series Switches <li data-bbox="813 724 1357 756">• Cisco IR1101 Integrated Services Router Rugged <li data-bbox="813 772 1357 804">• Cisco Network Convergence System 4200 Series <li data-bbox="813 821 1341 852">• Cisco Network Convergence System 520 Series <p data-bbox="776 915 1130 947">Cisco IOS XE Gibraltar 16.11.1a</p> <ul data-bbox="813 963 1406 1251" style="list-style-type: none"> <li data-bbox="813 963 1325 995">• Cisco 1000 Series Integrated Services Routers <li data-bbox="813 1012 1325 1043">• Cisco 4000 Series Integrated Services Routers <li data-bbox="813 1060 1406 1092">• Cisco ASR 1000 Series Aggregation Services Routers <li data-bbox="813 1108 1393 1140">• Cisco ASR 900 Series Aggregation Services Routers <li data-bbox="813 1157 1393 1188">• Cisco ASR 920 Series Aggregation Services Routers <li data-bbox="813 1205 1289 1236">• Cisco Cloud Services Router 1000V Series |

| Feature | Release & Platform |
|--|--|
| In-Service Model Updates | <p>Cisco IOS XE Everest 16.5.1a</p> <ul style="list-style-type: none"> • Cisco Catalyst 9300 Series Switches • Cisco Catalyst 9500 Series Switches <p>Cisco IOS XE Everest 16.5.1b</p> <ul style="list-style-type: none"> • Cisco 4000 Series Integrated Services Routers <p>Cisco IOS XE Everest 16.6.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 3650 Series Switches • Cisco Catalyst 3850 Series Switches <p>Cisco IOS XE Everest 16.6.2</p> <ul style="list-style-type: none"> • Cisco Catalyst 9400 Series Switches <p>Cisco IOS XE Fuji 16.7.1</p> <ul style="list-style-type: none"> • Cisco ASR 1000 Aggregation Services Routers <p>Cisco IOS XE Fuji 16.8.1a</p> <ul style="list-style-type: none"> • Cisco Catalyst 9500-High Performance Series Switches. |
| Application Hosting | |
| Application Hosting | <p>Cisco IOS XE Gibraltar 16.12.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9300 Series Switches <p>Cisco IOS XE Amsterdam 17.1.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9400 Series Switches <p>Cisco IOS XE Amsterdam 17.2.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9500-High Performance Series Switches • Cisco Catalyst 9600 Series Switches |
| Application Hosting: Front-Panel Network Port Access | <p>Cisco IOS XE Gibraltar 16.12.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9300 Series Switches <p>Cisco IOS XE Amsterdam 17.1.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9400 Series Switches <p>Note Cisco Catalyst 9410R Switch does not support front-panel application-hosting.</p> |

| Feature | Release & Platform |
|---|--|
| Application Hosting: Front-Panel USB Port Access | Cisco IOS XE Gibraltar 16.12.1 <ul style="list-style-type: none"> • Cisco Catalyst 9300 Series Switches Cisco IOS XE Amsterdam 17.1.1 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Cisco Catalyst 9300 Series Switches |
| OpenFlow | |
| OpenFlow | Cisco IOS XE Fuji 16.9.1 <ul style="list-style-type: none"> • Cisco Catalyst 9300 Series Switches • Cisco Catalyst 9400 Series Switches • Cisco Catalyst 9500 Series Switches and Cisco Catalyst 9500-High Performance Series Switches |
| OpenFlow Power over Ethernet | Cisco IOS XE Gibraltar 16.12.1 <ul style="list-style-type: none"> • Catalyst 9300 Series Switches • Catalyst 9400 Series Switches |
| OpenFlow Rewrite Fields | Cisco IOS XE Bengaluru 17.4.1 <ul style="list-style-type: none"> • Cisco Catalyst 9300 Series Switches • Cisco Catalyst 9400 Series Switches • Cisco Catalyst 9500 Series Switches and Cisco Catalyst 9500-High Performance Series Switches |