



New and Changed Information

This chapter provides release-specific information about all features.

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New and Changed Feature 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	<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 style="padding-left: 40px;">This feature is not supported on C9200L SKUs.</p> <ul style="list-style-type: none"> • Cisco Catalyst 9600 Series Switches

Feature	Release & Platform
Zero Touch Provisioning: HTTP Copy	<p>Cisco IOS XE Everest 16.6.1</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 Everest 16.6.2</p> <ul style="list-style-type: none"> • Cisco Catalyst 9400 Series Switches <p>Cisco IOS XE Fuji 16.8.1</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 Fuji 16.8.1a</p> <ul style="list-style-type: none"> • Cisco Catalyst 9500-High Performance Series Switches
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
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 16.8.1a</p> <ul style="list-style-type: none"> • Cisco Catalyst 9500-High Performance Series Switches <p>Cisco IOS XE Gibraltar 16.12.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9200 Series Switches <p>This feature is not supported on C9200L SKUs.</p>
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

Feature	Release & Platform
Python APIs	<p data-bbox="816 296 1138 321">Cisco IOS XE Everest 16.5.1a</p> <ul data-bbox="850 342 1256 527" style="list-style-type: none"><li data-bbox="850 342 1256 367">• Cisco Catalyst 3650 Series Switches<li data-bbox="850 390 1256 415">• Cisco Catalyst 3850 Series Switches<li data-bbox="850 438 1256 464">• Cisco Catalyst 9300 Series Switches<li data-bbox="850 487 1256 512">• Cisco Catalyst 9500 Series Switches <p data-bbox="816 558 1138 583">Cisco IOS XE Everest 16.5.1b</p> <ul data-bbox="850 604 1360 630" style="list-style-type: none"><li data-bbox="850 604 1360 630">• Cisco 4000 Series Integrated Services Routers <p data-bbox="816 674 1127 699">Cisco IOS XE Everest 16.6.2</p> <ul data-bbox="850 720 1256 745" style="list-style-type: none"><li data-bbox="850 720 1256 745">• Cisco Catalyst 9400 Series Switches <p data-bbox="816 789 1089 814">Cisco IOS XE Fuji 16.7.1</p> <ul data-bbox="850 835 1523 936" style="list-style-type: none"><li data-bbox="850 835 1523 894">• Cisco ASR 1000 Aggregation Services Routers (ASR1001-X, ASR1001-HX, ASR1002-X, ASR1002-HX)<li data-bbox="850 917 1328 942">• Cisco Cloud Services Router 1000V Series <p data-bbox="816 980 1101 1005">Cisco IOS XE Fuji 16.8.1a</p> <ul data-bbox="850 1026 1463 1052" style="list-style-type: none"><li data-bbox="850 1026 1463 1052">• 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	<p>Cisco IOS XE Denali 16.3.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 3650 Series Switches • Cisco Catalyst 3850 Series Switches • Cisco 4000 Series Integrated Services Routers <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 16.6.2</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 900 Series Aggregation Services Routers • 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 16.10.1</p> <ul style="list-style-type: none"> • Cisco Catalyst 9800 Series Wireless Controllers • Cisco Network Convergence System 520 Series • Cisco IR1101 Integrated Services Router Rugged <p>Cisco IOS XE Gibraltar 16.11.1</p> <ul style="list-style-type: none"> • Cisco Catalyst IE 3200, 3300, 3400 Rugged Series • Cisco Embedded Service 3300 Series Switches

Feature	Release & Platform
Candidate Configuration Commit Confirm	<p data-bbox="816 296 1170 323">Cisco IOS XE Amsterdam 17.1.1</p> <ul data-bbox="850 342 1433 1142" style="list-style-type: none"><li data-bbox="850 342 1360 369">• Cisco 1000 Series Integrated Services Routers<li data-bbox="850 392 1360 420">• Cisco 4000 Series Integrated Services Routers<li data-bbox="850 443 1433 470">• Cisco ASR 900 Series Aggregation Services Routers<li data-bbox="850 493 1373 520">• Cisco ASR 1000 Aggregation Services Routers<li data-bbox="850 543 1256 571">• Cisco Catalyst 9200 Series Switches<li data-bbox="850 594 1256 621">• Cisco Catalyst 9300 Series Switches<li data-bbox="850 644 1256 672">• Cisco Catalyst 9400 Series Switches<li data-bbox="850 695 1256 722">• Cisco Catalyst 9500 Series Switches<li data-bbox="850 745 1333 772">• Cisco cBR-8 Converged Broadband Router<li data-bbox="850 795 1328 823">• Cisco Cloud Services Router 1000V Series<li data-bbox="850 846 1268 873">• Cisco Catalyst IE3200 Rugged Series<li data-bbox="850 896 1268 924">• Cisco Catalyst IE3300 Rugged Series<li data-bbox="850 947 1268 974">• Cisco Catalyst IE3400 Rugged Series<li data-bbox="850 997 1393 1024">• Cisco IR1101 Integrated Services Router Rugged<li data-bbox="850 1047 1377 1075">• Cisco Network Convergence System 520 Series<li data-bbox="850 1098 1393 1125">• Cisco Network Convergence System 4200 Series

Feature	Release & Platform
NETCONF and RESTCONF IPv6 Support	<p data-bbox="776 289 1065 321">Cisco IOS XE Fuji 16.8.1a</p> <ul data-bbox="813 338 1398 884" style="list-style-type: none"> <li data-bbox="813 338 1321 369">• Cisco 1000 Series Integrated Services Routers <li data-bbox="813 390 1398 422">• Cisco ASR 1000 Series Aggregated Services Routers <li data-bbox="813 443 1386 474">• Cisco ASR 900 Series Aggregated Services Routers <li data-bbox="813 495 1219 527">• Cisco Catalyst 3650 Series Switches <li data-bbox="813 548 1219 579">• Cisco Catalyst 3850 Series Switches <li data-bbox="813 600 1219 632">• Cisco Catalyst 9300 Series Switches <li data-bbox="813 653 1219 684">• Cisco Catalyst 9400 Series Switches <li data-bbox="813 705 1219 737">• Cisco Catalyst 9500 Series Switches <li data-bbox="813 758 1292 789">• Cisco cBR-8 Converged Broadband Router <li data-bbox="813 810 1289 842">• Cisco Cloud Services Router 1000V Series <li data-bbox="813 863 1370 894">• Cisco ISR 4000 Series Integrated Services Routers <p data-bbox="776 919 1117 951">Cisco IOS XE Gibraltar 16.11.1</p> <ul data-bbox="813 968 1422 1052" style="list-style-type: none"> <li data-bbox="813 968 1422 999">• Cisco Catalyst 9500-High Performance Series Switches <li data-bbox="813 1020 1333 1052">• Cisco Embedded Service 3300 Series Switches

Feature	Release & Platform
NETCONF-YANG SSH Server Support	<ul style="list-style-type: none"> • Cisco 1000 Series Integrated Services Routers • Cisco 4000 Series Integrated Services Routers • Cisco ASR 900 Series Aggregated Services Routers • Cisco ASR 920 Series Aggregated 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 Catalyst IE3200 Rugged Series • Cisco Catalyst IE3300 Rugged Series • Cisco Catalyst IE3400 Rugged Series • Cisco cBR-8 Converged Broadband Router • Cisco Cloud Services Router 1000V Series • Cisco Embedded Service 3300 Series Switches • Cisco IR1101 Integrated Services Router Rugged • Cisco Network Convergence System 520 Series • Cisco Network Convergence System 4200 Series

Feature	Release & Platform
RESTCONF Protocol	<p data-bbox="776 289 1089 321">Cisco IOS XE Everest 16.6.1</p> <ul data-bbox="813 338 1479 506" style="list-style-type: none"> <li data-bbox="813 338 1321 369">• Cisco 4000 Series Integrated Services Routers <li data-bbox="813 390 1479 453">• Cisco ASR 1000 Aggregation Services Routers (ASR1001-HX and ASR1002-HX) <li data-bbox="813 474 1289 506">• Cisco Cloud Services Router 1000V Series <p data-bbox="776 537 1052 569">Cisco IOS XE Fuji 16.7.1</p> <ul data-bbox="813 585 1393 669" style="list-style-type: none"> <li data-bbox="813 585 1393 617">• Cisco ASR 9xx Series Aggregation Services Routers <li data-bbox="813 638 1354 669">• Cisco Network Convergence System 4200 Series <p data-bbox="776 701 1065 732">Cisco IOS XE Fuji 16.8.1a</p> <ul data-bbox="813 749 1219 984" style="list-style-type: none"> <li data-bbox="813 749 1219 781">• Cisco Catalyst 3650 Series Switches <li data-bbox="813 802 1219 833">• Cisco Catalyst 3850 Series Switches <li data-bbox="813 854 1219 886">• Cisco Catalyst 9300 Series Switches <li data-bbox="813 907 1219 938">• Cisco Catalyst 9400 Series Switches <li data-bbox="813 959 1219 991">• Cisco Catalyst 9500 Series Switches <p data-bbox="776 1022 1052 1054">Cisco IOS XE Fuji 16.9.2</p> <ul data-bbox="813 1071 1219 1102" style="list-style-type: none"> <li data-bbox="813 1071 1219 1102">• Cisco Catalyst 9200 Series Switches <p data-bbox="776 1134 1117 1165">Cisco IOS XE Gibraltar 16.10.1</p> <ul data-bbox="813 1182 1354 1266" style="list-style-type: none"> <li data-bbox="813 1182 1341 1213">• Cisco Network Convergence System 520 Series <li data-bbox="813 1234 1354 1266">• Cisco IR1101 Integrated Services Router Rugged <p data-bbox="776 1297 1117 1329">Cisco IOS XE Gibraltar 16.11.1</p> <ul data-bbox="813 1346 1370 1430" style="list-style-type: none"> <li data-bbox="813 1346 1370 1377">• Cisco Catalyst IE 3200, 3300, 3400 Rugged Series <li data-bbox="813 1398 1333 1430">• Cisco Embedded Service 3300 Series Switches

Feature	Release & Platform
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
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 16.11.1</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 Series Switches • Cisco Catalyst 9800 Series Wireless Controllers • Cisco Catalyst IE3200 Rugged Series • Cisco Catalyst IE3300 Rugged Series • Cisco Catalyst IE3400 Rugged Series • Cisco Embedded Service 3300 Series Switches <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 Aggregated Services Routers • Cisco Network Convergence System 520 Series • Cisco Network Convergence System 4200 Series
gNMI Username and Password Authentication	<p>Cisco IOS XE Gibraltar 16.12.1</p> <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 9800 Series Wireless Controllers • 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

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 678" 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="776 709 1065 741">Cisco IOS XE Fuji 16.8.1a</p> <ul data-bbox="813 758 1219 993" style="list-style-type: none"><li data-bbox="813 758 1219 789">• Cisco Catalyst 3650 Series Switches<li data-bbox="813 810 1219 842">• Cisco Catalyst 3850 Series Switches<li data-bbox="813 863 1219 894">• Cisco Catalyst 9300 Series Switches<li data-bbox="813 915 1219 947">• Cisco Catalyst 9400 Series Switches<li data-bbox="813 968 1219 999">• Cisco Catalyst 9500 Series Switches

Feature	Release & Platform
Model-Driven Telemetry NETCONF Dial-In	<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 Series 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 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 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 Routers • 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 16.10.1</p> <ul style="list-style-type: none"> • Cisco Cloud Services Router 1000v • Cisco IR1101 Integrated Services Router Rugged • Cisco Network Convergence System 520 Series

Feature	Release & Platform
Model-Driven Telemetry gRPC Dial-out	<p>In Cisco IOS XE Gibraltar 16.10.1, the gRPC Dial-Out feature was introduced on the following platforms:</p> <ul style="list-style-type: none">• Cisco 1000 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 Catalyst 9200 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 Cloud Services Router 1000V Series• Cisco IR1101 Integrated Services Router Rugged• Cisco Network Convergence System 4200• Cisco Network Convergence System 520

Feature	Release & Platform
Model-Driven Telemetry gNMI Dial-In	<p data-bbox="816 291 1154 321">Cisco IOS XE Gibraltar 16.12.1</p> <ul data-bbox="850 338 1463 657" style="list-style-type: none"> <li data-bbox="850 338 1256 367">• Cisco Catalyst 9200 Series Switches <li data-bbox="850 390 1256 420">• Cisco Catalyst 9300 Series Switches <li data-bbox="850 443 1256 472">• Cisco Catalyst 9400 Series Switches <li data-bbox="850 495 1463 554">• Cisco Catalyst 9500 and 9500-High Performance Series Switches <li data-bbox="850 577 1256 606">• Cisco Catalyst 9600 Series Switches <li data-bbox="850 630 1330 659">• Cisco cBR-8 Converged Broadband Router <p data-bbox="816 690 1170 720">Cisco IOS XE Amsterdam 17.1.1</p> <ul data-bbox="850 737 1430 1131" style="list-style-type: none"> <li data-bbox="850 737 1430 766">• Cisco ASR 900 Series Aggregation Services Routers <li data-bbox="850 789 1422 819">• Cisco ASR 920 Series Aggregated Services Routers <li data-bbox="850 842 1268 871">• Cisco Catalyst IE3200 Rugged Series <li data-bbox="850 894 1268 924">• Cisco Catalyst IE3300 Rugged Series <li data-bbox="850 947 1268 976">• Cisco Catalyst IE3400 Rugged Series <li data-bbox="850 999 1393 1029">• Cisco IR1101 Integrated Services Router Rugged <li data-bbox="850 1052 1377 1081">• Cisco Network Convergence System 520 Series <li data-bbox="850 1104 1390 1134">• Cisco Network Convergence System 4200 Series

Feature	Release & Platform
TLS for gRPC Dial-Out	<p>Cisco IOS XE Amsterdam 17.1.1</p> <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 Catalyst 9800 Series Wireless Controller • 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	<p>Cisco IOS XE Amsterdam 17.2.1</p> <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="816 291 1154 321">Cisco IOS XE Gibraltar 16.11.1</p> <ul data-bbox="850 338 1430 884" 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 IR1101 Integrated Services Router Rugged • Cisco Network Convergence System 4200 Series • Cisco Network Convergence System 520 Series <p data-bbox="816 919 1167 949">Cisco IOS XE Gibraltar 16.11.1a</p> <ul data-bbox="850 966 1446 1251" 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 Aggregation Services Routers • 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 Series Switches • 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

