



Metro Solution Components

This chapter covers the main components, the supported Cisco IOS XR OS products, and the automation components of Cisco Metro solution.

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Main components of Metro solution

The table lists the main hardware and software components of Metro solution and their compatible versions.

Table 1: Compatibility matrix for Metro solution components

Metro solution component	Hardware or software component	Version
Cisco routers	Cisco ASR 9000 Series Routers Cisco NCS 540 Series Routers Cisco NCS 5500 Series Routers Cisco NCS 5700 Series Routers Cisco 8000 Series Routers Cisco 8700 Series Routers Cisco Catalyst (SD-WAN)	Not applicable
NOS for Cisco ASR 9000, NCS 540, NCS 5500, NCS 5700, Cisco 8000, and Cisco 8700 Series Routers	Cisco IOS XR Software	24.4.1
NOS for Cisco Catalyst 8500 Series Edge Platforms	Cisco IOS XE Software	17.15
Edge Fabric Management	Metro Fabric Manager Function Pack	1.0
DDoS Controller	Cisco Secure DDoS Edge Protection	24.07.09.2976

Metro solution component	Hardware or software component	Version
IP Controller	Cisco Crosswork Network Controller	7.0.1
Multi-Layer Controller	Cisco Crosswork Hierarchical Controller	9.0
Network Services Orchestrator	Cisco Crosswork Network Services Orchestrator	6.1.11.2
Workflow Management	Cisco Crosswork Workflow Manager	1.2
SD-WAN Controller	Cisco Catalyst SD-WAN Manager	17.15.1
Provider Connectivity Assurance Sensor Management	CPCA Sensor Control CPCA Orchestrator	22.x
PON Management	Cisco Routed PON Manager	5.0
CUPS Control Plane	Cisco Cloud Native BNG (cnBNG) Control Plane	2024.04.0 with Cloud Native Deployment Platform (CNDP) 24
CUPS User Plane	Cisco Cloud Native BNG (cnBNG) User Plane: Cisco ASR 99XX modular chassis with Cisco ASR 9000 5th generation High Density Ethernet line cards: ASR 9902 ASR 9903	24.4.1
CnBNG CFP for Day-0 and Day-1 Management	CNBNG SMI-NSO CFP	2024.04.0

Supported Cisco IOS XR OS products for Metro solution

The table lists the supported Cisco IOS XR OS products for Metro solution.

Product Series	Product ID
Cisco ASR 9000	ASR 9902 ASR 9903
Cisco 8000 (Q200-based)	8201-24H8FH 8201-32FH 8202-32FH-M Cisco 8608 (Centralized): 86-MPA-14H2FH-M 86-MPA-24Z-M 86-MPA-4FH-M

Product Series	Product ID
Cisco 8000 (P100-based)	8711-32FH-M 8212-48FH-M
Cisco 8000 (K100-based)	8712-MOD-M
Cisco NCS 5500	NCS 55A1: NCS-55A1-24Q6H-S NCS-55A1-24Q6H-SS (MACsec)
Cisco NCS 55A2, NCS 57C3	NCS-55A2-MOD-SE NCS-57C3-MOD-SE-S NCS-55A2-MOD-S NCS-57C3-MOD-S
Cisco NCS 5700	NCS-57B1-5DSE-SYS NCS-57B1-6D24-SYS NCS-57D2-18DD NCS-57C1-48Q6-SYS
Cisco NCS 5500 line cards	NC57-48Q2D-S NC57-48Q2D-SE-S NC57-36H6D-S
Cisco NCS 540	N540-24Z8Q2C-SYS N540-ACC-SYS N540-24Q8L2DD-SYS N540X-16Z4G8Q2C-D/A N540-28Z4C-SYS-D/A
Cisco IOS XRv 9000	Cisco IOS XRv 9000
Cisco IOS XRd virtual router	Cisco IOS XRd vRouter

Automation components of Metro solution

The table lists the main automation components of Metro solution and their compatible versions.

Automation component	Component version
Cisco Crosswork Network Controller	7.0.1
Cisco Crosswork Hierarchical Controller	9.0
Cisco Crosswork Network Services Orchestrator	6.1.3.1
Cisco Crosswork Workflow Manager	1.2
Cisco Cloud Native BNG (cnBNG) Control Plane	2024.04.0 with Cloud Native Deployment Platform (CNDP) 24
Cisco Cloud Native BNG NSO SMI Deployer	2024.04.0
Crosswork Planning	7.0.1
Cisco Provider Connectivity Assurance	24.2
CX Fabric Manager	1.0

Related documentation

For details on individual components of Metro solution, see the related documentation listed here.

- [Cisco Catalyst SD-WAN](#)
- [Cisco Crosswork Hierarchical Controller](#)
- [Cisco Crosswork Network Controller](#)
- [Cisco Crosswork Network Services Orchestrator](#)
- [Cisco Crosswork Workflow Manager](#)
- [Cisco Routed Optical Networking](#)
- [Cisco Routed Passive Optical Networking](#)
- [Cloud Native BNG Control Plane](#)
- [Cloud Native BNG User Plane](#)
- [Cisco Provider Connectivity Assurance](#)