Cisco Evolved Programmable Network Manager 6.0.0 Release Notes

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Introduction

This document contains the following information about Cisco Evolved Programmable Network Manager 6.0.0:

Functionality Added in Cisco EPN Manager 6.0.0

This section lists the new features/functionality delivered in Cisco EPN Manager 6.0.0.

Note Following features are deprecated in Cisco EPN Manager 5.1 and will be removed from Cisco EPN Manager 6.1:

- Deprecation of browser (Internet Explorer 11 - IE11)
- Deprecation of Bare metal installation
- Deprecation of classic license

Note MTOSI support for EPNM has been deprecated from Cisco EPN Manager 3.1 onwards, please use RESTconf NB APIs for integration.

Note   IoT feature and device support has been deprecated from Cisco EPN Manager 4.1 onwards and removed from Cisco EPN Manager 5.0 onwards.

Note   Cable devices and functionality has been deprecated from Cisco EPN Manager 4.0.1 onwards and removed from Cisco EPN Manager 5.0 onwards.

Note   Features marked "BETA" provide limited functionality in this release. The intention is to fully support these features in the next release.

Note   NBI Credential user group is deprecated starting Cisco EPN Manager 4.0 release.

Note   G8032 is not supported and has been deprecated starting Cisco EPN Manager 4.0 release.

GUI - General

- Support for software upgrade for NCS540 FPD
- Support for NCS2k SVO 12.3 SW Upgrade

Device Configuration

- NCS2k SVO reports for T6 TXP
- Router Inventory to show SFP Type at interface/port - Copper/Optical

Circuit Emulation

- Support EVPN Multi-Homed VPWS in EPN-M: Faults and Y.1731/1564

Device Support

- EPNM support of NCS 2k 12.3 on NCS 2000
- EPNM support of IOS-XR 7.4.1 on ASR9K

Optical

- Support for SMR1/2 with NCS2KSVO 12.3 version
- Support for NCS2K SVO 12.3 version

- OCH-Trail WSON migration support for OTU3/OTU2/OTU2E /OTU4/OTU4C2

- OCH-CC WSON migration support for 100G/10G/40G

- Support of OTU2-XP TXP with 10GE CC rate & OTU2E Trail rate with version NCS2K SVO 12.2 and above

- Support of PSM with version NCS2K SVO 12.3

- Support of BSTE-AMP17 with version NCS2K SVO 12.3

- Support of 150G OCH trail for NCS55-6X200-DWDM line card

- Support of NCS1004, NCS2k SVO with IPv6 DCN

- Support for Manged Plane OCH-NC provisioning & discovery for NCS2K SVO

- Support of NCS2K-RAMAN-CTP-C+L Amplifier - Ornellaia with version NCS2K SVO 12.3

- Support of NCS1004 Rel 7.2.1 with features:

  BPSK support on trunk with 50G rate

  FEC Enhanced SD-15

  FR and DAC QSFP support along with Performance Metrics

  MAC address snooping

- NCS2k SVO licensing

- NCS2k SVO reports for T6 transponder (TXP)

Fault Management

- Suppress warning level trap notifications for the entitysensorthreshold alarm on EPNM

Service Discovery

- Support for Segment Routing on IOS XE (17.4.1 as minimum version)

Functionality Deprecated in Cisco EPN Manager 6.0.0

This section lists the features/functionality/Menus deprecated in Cisco EPN Manager 6.0.0.

- **Topology Map functionality:**

  1. Grouping settings under system Settings

  2. Hover information on links in Topology

  3. Print\Save of map

  4. Map dashlet

- **General Features:**

  1. Chassis View consolidation: always ON chassis view with merged logical and device details view

2. Active Virtual Domain

- Administration>Dashboards> Job Dashboard> System Jobs - APIC-EM Integration

- Administration>Dashboards> Job Dashboard>System Jobs - Assurance & Health summary

- Administration>Dashboards> Job Dashboard> System Jobs - Wirecless Monitoring

- Administration>Servers> ACS View Servers>ACS View Servers

- Administration>Servers> APIC-EM Controller> APIC-EM Controller

- Administration>Settings>Logging>SNMP Log

- Administration>Settings>Logging>Syslog

- Administration>Settings>Certificate> Certificate - System Key & Certificate

- Administration>Settings> System Audit> System Audit

- Administration>Settings> System Settings> General - Guest Account

- Administration>Settings> System Settings> General - Help Us Improve

- Administration>Settings> System Settings> General - Proxy

- Administration>Settings> System Settings> General - Software Request

- Administration>Settings> System Settings>General - Cisco DNAC Center

- Administration>Settings> System Settings> Network & Device - CLI Session

- Administration>Settings> System Settings> Network & Device - Controller Upgrade

- Administration>Settings> System Settings> Network & Device - Unified AP Ping Reachability

- Administration>Settings> System Settings> Network & Device - Plug & Play

- Administration>Settings> System Settings> Switch Port Trace - Auto SPT

- Administration>Settings> System Settings> Switch Port Trace - Manual SPT

- Administration>Settings> System Settings> Switch Port Trace - SPT Configuration

- Administration>Settings> System Settings> Switch Port Trace - Known Ethernet MAC

- Administration>Settings> System Settings> Inventory - Datacenter Settings

- Administration>Settings> System Settings> Client & User - All sub menu

- Administration>Settings> System Settings> Services - Service Container Management

- Configuration> Templates> Features and Technologies> Feature Templates

- Configuration> Templates> Switch Location> Switch Location Table view

- Configuration> Templates> Switch Location> Switch Location - Add Template

- Configuration> Templates> Switch Location> Switch Location - Apply Template

- Configuration> Templates> Scheduled Configuration Task> AP Template Tasks

- Configuration> Templates> Scheduled Configuration Task> AP Template

- Configuration> Templates> Scheduled Configuration Task> Config Group

- Configuration> Templates> Scheduled Configuration Task> WLAN Configuration

- Configuration> Templates> Scheduled Configuration Task> Download Software

- Dashboard> Performance> BNG Statistics> BNG Statistics Dashboard TAB

- Dashboard> Performance> ME1200 QoS> ME1200 QoS Dashboard TAB

- Dashboard> Device Trends> Applications> Applications Trend Dashboard

- Inventory>Device Management>Device Details>Device Details - CDP Neighbours

- Inventory>Device Management>Device Details>Device Details - Civic Location

- Inventory>Device Management>Device Details>Device Details - Spanning Tree

- Inventory>Device Management>Device Details>Device Details - VTP

- Inventory>Device Management>Device Details>Device Details - Stacks

- Inventory>Device Management>Device Details>Device Details – VLANs

- Inventory>Device Management>Device Details>STS/VC Interfaces

- Inventory>Device Management>Device Details>Intra Node LMP

- Inventory>Device Management> Configuration Archive> Config Archive Device Table - Deploy Config

- Inventory>Device Management>Virtual Image Repository> Image Repository View

- Inventory>Device Management> Network Audit> Deprecated - To be removed

Device/OS Support Added in Cisco EPN Manager 6.0.0

This section lists the new support provided in Cisco EPN Manager 6.0.0. For a list of all support information, click the gear icon at the top right of the web GUI and choose Help > Supported Devices.

Note "BETA" means that the device/operating system has not yet been released but Cisco EPN Manager has been tested on the Beta version.

Cisco NCS 2000 Series Network Convergence Systems —New Operating System Support

Device Model	Device OS
Cisco NCS 2000	NCS 2K 12.3

Cisco ASR 9000 Series Aggregation Services Routers—New Operating System Support

Device Model	Device OS
Cisco ASR 9000 Router	IOS-XR 7.4.1

Note   IOS-XR 7.1.3 is not supported on Cisco ASR 9903 router.

Supported Installation/Upgrade Paths

The following table lists the valid paths for installing/upgrading to Cisco EPN Manager 6.0.0 from previous versions.

Current Cisco EPN Manager Version	Installation Path to Cisco EPN Manager 6.0.0
Cisco EPN Manager 5.0	**Cisco EPN Manager 5.0 > 6.0.0**
Cisco EPN Manager 5.1.3	**Cisco EPN Manager 5.1.3 > 6.0.0**

See the relevant installation guide for installation prerequisites and procedures for Cisco EPN Manager versions.

For point patch installation instructions, see the readme file supplied with the patch file on the on the Software Download site on Cisco.com.

Important Notes

Cisco EPN Manager software is distributed with all the components necessary for its optimized and secure operation, including the Red Hat Linux operating system and the Oracle database. All security-related configurations, regression testing, performance, and scalability metrics are based on the set of components and configurations included in the original Cisco EPN Manager software distribution. Cisco provides periodic EPN Manager software updates that can also contain necessary updates to the packages installed on the operating system or to the database.

Note that if any of the following changes are made to the original distributed Cisco EPN Manager software, Cisco will no longer support the operating environment:

- Configuration changes to the software or operating system, or installation of other components that are not part of the original distribution.

- Direct installation and application of third-party software on the Red Hat Linux operating system embedded within Cisco EPN Manager.

- Application of updates or patches that are **not** provided by Cisco to individual Cisco EPN Manager components.

- Changes to the internal Cisco EPN Manager settings that are not documented as modifiable in the Cisco EPN Manager User and Administrator Guide on Cisco.com, as these changes may weaken security, disable functionality, or degrade scalability and performance.

Upgrade Issues

- FTP and TPTP is disabled by default.

- Active Threshold Crossing Alarms (TCA) for temperature remain active and are not cleared automatically. Please clear these alarms manually.

- You must resync your devices to view ISIS links.

- You must resync LDP-enabled devices to view LDP feature-related information.

- You must recreate the TCAs for inbound/outbound errors and inbound/outbound discards in the Interface Health monitoring policy.

Limitations on Carrier Ethernet Circuit Provisioning

- Promotion of service using old probe name format is now supported. These probes are listed in user interface with appropriate standard OAM Profile name after promotion.

- Sample profile: profile PM2_3_8_CoS5_DM type cfm-delay-measurement.

- While custom profile names are supported in EPN Manager, modifying brownfield services with a different naming format deletes the existing custom profile and adds a new profile with a supported naming format.

- Inventory models do not correctly display the profiles that are not associated to a service.

- Validation limit for number of profiles is 100. If you create a new SLA operation profile after 100 existing profiles, the device generates an error and deployment fails.

TLS 1.2 Required for Secured Channel Communication for HTTPS and TLS

Only Transport Layer Security (TLS) 1.2 is supported for HTTPS and TLS related secured communication, for example, RADIUS EAP-TLS.

Support for TLS 1.0, TLS 1.1, and all versions of SSL has been disabled due to security vulnerabilities.

This means that all peer systems and clients that transact with Cisco EPN Manager using HTTPS/TLS must support TLS 1.2. If they do not support TLS 1.2, you must upgrade these systems. Wherever possible, the Cisco EPN Manager documentation highlights the potentially affected systems. Please contact your Cisco representative for support in this regard, if necessary.

Reconciliation Report Limitations

If you have not provided a value for an attribute while provisioning a service, the provisioned value for that attribute is displayed as "Missing" in the reconciliation report. The device may have a default value for this attribute, but Cisco EPN Manager does configure this value.

Limitations on ME 1200 Devices

The Y.1564 performance test does not work if the source/destination is a ME 1200 device.

Limitations on Editing Alarm Notification Policies

If the upgrade conditions of existing categories are different from the condition of categories on 5.1, then the conditions post upgrade will not match. As a result, policy might not be created or UI selection might not take place for the unmatched events. In this case, you should delete the upgraded policies and create a new one.

Limitations on NCS 4200 Devices Running IOS-XE 16.8.1

The following functionalities do not work on NCS 4200 devices running IOS-XE 16.8.1:

- Alarm profile
- Configuration of SONET LOP and CT3 LOP from the GUI
- Admin shut/no shut functionality on SONET/T1/T3 HOP/LOP

Limitations on NCS540 and NCS5500 devices

- NCS540 and NCS5500 device series does not support Fault-OAM, Wrap-Protection and BFD.

Use CLI Templates for Configuring PTP Commands

On ASR920 devices with software version 16.9.1, IEEE 1588-2008 BC/MC license is required to execute the 1588 PTP commands.

Configuration and Inventory Not Supported for PTP Templates

The behavior of modeling the configurations pushed through PTP templates may not work as expected because the model may not be in place for all the configurations pushed through PTP templates. Configuration/Inventory is not supported for these configurations.

Deprecation of Support for ONS 10.00.10, 10.01.00, 10.03.00

ONS 10.00.10, 10.01.00, 10.03.00 ONS 10.00.10, 10.01.00, and 10.03.00 are no longer supported on Cisco NCS 2002, 2006 and 2015 devices.

Data Center Device Lifecycle Support Only

Cisco EPN Manager provides foundation lifecycle support for UCS compute systems, CSR 1000v, and Nexus series devices but does not provide data center topology.

LINK_DOWN alarm on sub interfaces in Gig Port

LINK_DOWN alarms will not be generated when link is down on sub interfaces in a Gig Port.

Limitations on Carrier Ethernet Circuit Provisioning

- Limitations for EVPN Multi-Homed VPWS in EPNM (Beta level).
- No new syslogs support added for EVPN Multi-Homed. Workaround - Full sync of devices needed.
- Serviceability state will be shown as Partial for Port-Active and Single-Active.
- Serviceability state calculation logic is not yet changed for multihoming.

- In case of partial configuration of EVPN Multi-Homed (For example, two A-end devices are configured), the service is discovered as two different services with one endpoint each, in Circuit VC.

- There is no differentiation for EthernetSegment used for Single-Homed or Multi-Homed in overlay.

- SR-TE ODN not supported in EPNM for EVPN Multi-Homed discovery.

Cisco EPN Manager Bugs

Open Bugs

The table below lists the open bugs in Cisco EPN Manager Release 6.0.0 according to the following criteria:

- Severity 1, 2, and high priority severity 3 open bugs

- All open customer-found bugs

- High-impact bugs that are likely to affect Cisco EPN Manager workflows.

Click the identifier link to view the impact and workaround for the bug in the Bug Search Tool. Use this tool to track the status of the open bugs.

Bugs	Description
CSCwa56226	Some of the circuits going into partial state after migration
CSCwa68126	ASR9904:Transport admin status is not same in chasis/device details view
CSCvx44210	Packet Scale 5.1 - Inconsistencies in TeTunnelLsp and TeTunnelLspEndpoint relation post device add
CSCvy50290	NCS2K/SVO circuit history view 360 Serviceability State is Unavailable
CSCvz72116	[Scale]Import 8K-Few devices are in CwW and Collection failure state
CSCvz97671	NCS2K : Particular OCHCC WSON circuit is Partial in EPNM and related cc info from trail missing
CSCwa09762	5508:RON:Breakout port having different wavelenth , this wavelenth is not matching with show conf
CSCwa16286	B/R:TL1: Update and sync after associating Credential profile to multipe device , one device go sync
CSCwa57197	Circuits of one User Group is displayed under another User Group
CSCwa71969	[Packet scale]Fresh install- found discrepancy in Service count and links count

Bugs	Description
CSCvz95559	NCS2K : Restoration config is showing as None in-circuit table, but is correct in circuit 360
CSCwa74971	NCS4k:TCM:Enabling Performance Monitor is not working , it is always goes to disabled

Closed Bugs

The table below lists the closed bugs in Cisco EPN Manager Release 6.0.0.

Click the identifier link to view the impact and workaround for the bug in the Bug Search Tool. Use this tool to track the status of the bugs.

Bugs	Description
CSCvq68100	Create UNI: TenGig Port is not listing in provisioning UI
CSCvo29772	MUT: Inventory restconf notifications are delayed by 1.5 hours
CSCvo32160	Two devices had the same engine id in EPNM, causing SNMP connectivity failures
CSCvs41600	[Upgrade] Upgrade in Bare Metal fails with Grub ERROR
CSCvt05351	SR TE policy does not gets updated when Segment-lists gets updated.
CSCvt23322	Port-status combo impact is not clear during terminate of service
CSCvu26031	NCS2K- >Data under Configuration Tab - > Line not loading without refresh after create of cardmode/ppm
CSCvu70810	NCS2K - > Dropdown for configuration not working for chassis view when opened in new window
CSCvu91759	Optical VC Primary State is not updated on VC admin down when there is already alarm on the VC
CSCvu94288	OCHCC service provisioning failing, error in get response as '@xpath /beans[1]/CFS[1]/serviceId[1]'
CSCvv07473	NCS2K- > Filtering not working properly for inventory in chassis view
CSCvv24917	Chrome:Edit alarm notification policies UI issues
CSCvv39261	SRTE Overlay - Z endpoint is not marked and \"Show backup path\" is not available
CSCvv53356	Duplicate services are getting listed after performing upgrade from 4.0.3 - >5.0
CSCvw13954	NCS2k: Modification of OTN Trail trace identifier/Section Trace values are not retained after resync

Bugs	Description
CSCvw19016	[Scale] ncs4k :SDN/SONET slow policy collection , causing other scheulers job to start with delay
CSCvx57785	DTS: Report scheduling discrepancy
CSCvx59103	OTU2E rate is not supported for OCH-CC circuits for coherent/non-coherent TXP
CSCvx64278	4K TE over LAG - overlay display the old path instead of the new one
CSCvy03910	Editing of optics/coherent controller should not be allowed if its a part of a circuit
CSCvt90840	Scroll bar not seen in notification policies edit page in a scenario

Resolved Bugs

The table below lists bugs that have been resolved in Cisco EPN Manager 6.0.0

For more information about the resolved bugs, go to the Bug Search Tool.

Bugs	Description
CSCvy23276	EPN - install - 5.1 ubf missing grub2-efi-x64-2.02-0.87.el7_9.2.x86_64.rpm
CSCwa40099	connection-oriented restconf notifications may cause OOM due to UUIDBroadcasterCache
CSCvy00402	EPN - recovery - DB restore fails with errors
CSCvy09801	EPNM secondary installation issue on baremetal
CSCvy10190	Insufficient interfaces to select message observed for Y.1564 performance tests
CSCvy35890	EPNM: Duplicated monitoring policy is not visible under Monitoring Policies
CSCvy37305	Device up time is not showing in device 360*
CSCvy41210	TeTunnelLspLink plugin is slow
CSCvy52563	Loading customization MIB is failing due to MIB filename
CSCvy53475	Cannot select SWIM Server in distribution verification phase for ASR920 devices
CSCvy62675	After upgrade of 5.1.1 version, EPNM server time zone changed
CSCvy63670	wrong data for partnumber in cisco-resource-physical:equipment restconf API
CSCvy74544	Cannot select SWIM Server in distribution verification phase for ASR1K devices

Bugs	Description
CSCvy83322	handleGetServiceStructure may cause OOM when multiple MLTs are open in parallel
CSCvy90349	Dashboard IPSLA - Quick Filter with Probe Index does not work.
CSCvy92849	Old LLDP link is not deleted when hostname is changed
CSCvz10661	Schedule button are inaccessible, in Configuration Archive page, when Browser size increased
CSCvz12497	Cannot save new repository for "Device Config Backup-External"
CSCvz15943	EPN - alarm - alarms not seen on left pane for maps view
CSCvz21325	Interface speed is set incorrectly in PEP table
CSCvz21957	failed to consistently delete Payload type OTU2/OTU2e on pluggable port on 10x10G-LC of NCS2K
CSCvz35479	The call api/v4/op/info/license does not give proper info in case of smart license
CSCvz37018	API:Unable to bulk add devices using API with snmp credentials containing (")
CSCvz54298	IPSLA Y.1731 Statistics report shows values from other probes/profiles for IOS-XE devices
CSCvz57934	PKT_INFRA-FM description and condition are not parsed correctly
CSCvz67749	Japanese - Edit server backup job repositories throws an error.
CSCvz71922	TV_MEMORY_UTILIZATION alarm not generated after the threshold is breached
CSCvz85639	few non working Rest API
CSCvz97978	Table TBL_INTERFACES_FILTER need to be updated when the DEVICENAME is changed
CSCwa09775	BNG Subscriber Sessions dashlets do not load
CSCwa14436	statisticsService/device/healthInfo does not reply any values
CSCwa16565	Event Suppression does not work when there is flood of events coming into EPNM
CSCwa19203	Y1731BinStats do not get populated if CST timezone is used on device
CSCwa23553	Timezone listed as GMT while exporting alarms in CSV/PDF for "America/La_Paz" Time zone
CSCwa23569	Timezone listed as BT instead of BOT in alarms, events, syslog for 'America/La_Paz'
CSCwa26844	Timestamp displayed in UTC but with a different timezone in Topology alarms table
CSCwa30745	Reroute option is not listing in circuit360 actions menu for a restoration failed circuit

Bugs	Description
CSCwa31019	Config archive failure for NCS2K will give a misleading message - No attribute "CLI_LOGIN_USERNAME"
CSCwa35808	EPN - HA - EPN start stall due to oracle adump folder
CSCwa36474	Failure source value inconsistent for coldStart and warmStart Alarms
CSCwa39133	home directory filling up to 100% and no files are dropped
CSCwa41626	Link Utilization report takes a very long time to complete - Need to optimize
CSCwa51023	ETREE with multiple unis per device is not updating properly root and leaf
CSCwa51153	restconf response in case exceeding the RateLimiter, does not indicate the reason in the reply
CSCwa51273	Incorrect memory utilisation for CSR1kv
CSCwa51840	EPN - nbi - restconf returns cached data after direct TL1 update of circuit contstraints
CSCwa55014	Devices are not visible in Topology post Fail-back to Primary
CSCwa57037	Security risk due to telnet get enabled on device when using AutoDeploy_Manageability_Config-IOS-XR
CSCwa64689	EVPN with bundle-ether endpoints is partially discovered

Get Information about Cisco EPN Manager Bugs

Use the Bug Search tool (BST) to get the latest information about Cisco EPN Manager bugs. BST allows partners and customers to search for software bugs based on product, release, and keyword, and it aggregates key data such as bug details, product, and version.

Cisco EPN Manager bugs may be caused by defects in a device's platform or operating system. In those cases, the Cisco EPN Manager bug will be resolved when the hardware/operating system bug is resolved.

Procedure

Step 1 Log into the Bug Search Tool.

a) Go to https://tools.cisco.com/bugsearch/.

b) At the Log In screen, enter your registered Cisco.com username and password; then, click **Log In**

Note If you do not have a Cisco.com username and password, you can register for them at http://tools.cisco.com/RPF/register/register.do

Step 2 To list all bugs for this version, click the Select from list hyperlink that is next to the Product field and select the product.

a) Choose **Cloud and Systems Management** > **Routing and Switching Management** > **Cisco Evolved Programmable Network (EPN) Manager** and then select the required product version.

b) When the results are displayed, use the filter and sort tools to find bugs according to their status, severity, how recently they were modified, if any support cases are associated with them, and so forth.

You can also search using bug IDs or keywords. For more information, click **Help** at the top right of the Bug Search page.

Related Documentation

For a list of all documentation available for Cisco EPN Manager 6.0.0, see the *Cisco Evolved Programmable Network Manager 6.0 Documentation Overview*.

Accessibility Features in Cisco EPN Manager 6.0.0

For a list of accessibility features in Cisco EPN Manager 6.0.0, please contact accessibility@cisco.com.

All product documents are accessible. If you would like to receive the product documentation in audio format, braille, or large print, contact accessibility@cisco.com

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see What's New in Cisco Product Documentation

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