Cisco Evolved Programmable Network Manager 2.1.1 Release Notes

First Published: June 1, 2017

Contents

This document contains the following information about Cisco Evolved Programmable Network Manager 2.1.1:

Cisco Systems, Inc.
www.cisco.com

Functionality Added in Cisco EPN Manager 2.1.1

Note If a feature is marked as "Beta" it means that the feature is available but has not been fully tested.

Provisioning of Serial Services

- Creation and provisioning of RS232 services

Management of Cable Devices

- The following new features were introduced to manage cable devices:
  - Comprehensive inventory management of Cisco cBR-8 devices
  - Visualization of Cisco cBR-8 in the network topology
  - Next generation chassis view support for Cisco cBR-8 DPIC cards
  - Support for inventory audit between Cisco EPN Manager and Cisco c-BR8 devices
- The following Cisco EPN Manager features have been enhanced for cable devices:
  - Managing software images on cBR-8 devices
  - Viewing Cisco cBR-8 device 360 and interface 360 information
  - Viewing Cisco cBR-8 device details in the chassis view
  - Device specific filtering capability over NBI

Provisioning

- Ability to force delete a circuit/VC if deletion of the circuit has failed.

Discovery

- Ability to disable service discovery.

Note This feature is not supported if your network includes optical devices (NCS 1000, NCS 2000, NCS 4000).

Device Lifecycle Management

- Two new tabs in the chassis view:
  - Interfaces tab—Displays type and status information for the interfaces configured on the selected device, module, or port
  - Performance tab—Displays performance information for the selected interface on a module or port
- Virtual rack support added for ASR 9000 devices with Satellite setting.
- Refresh and zoom support is now available after adding a line card.
- Enhancements to the chassis view:
  - Port view now displays contextual information related to the selected port
  - Patchcords that are not supported are disabled
  - Additional supported devices:

  - NCS 1001 devices
  - NCS 5001 and NCS 5002 devices
  - NCS 4216 F2B
  - VCoP pluggable on NCS42XX devices
  - NCS 2000 and ONS 15454 patchcord enhancements
- Enhancements to service details and 360 views:
  - Ability to do a side-by-side comparison of the high-level information and status for multiple devices in the Device 360 view
  - Accessibility enhancements for 360 views
  - Auto-refresh function for Device 360 view
  - SRRG tab added to Device 360 and Link 360—Displays SRRG information for selected devices/links

Device Configuration

- Configuration of devices with 5G or 10G card modes (NCS 4000 devices and ASR 9000 devices)
- Automatic In-Service (AINS) state is supported on NCS 42XX device interfaces running IOS-XE 16.5.1 and higher.
- Configuration of Cisco NCS42XX device interface pluggable types with Virtual Container over Packet (VCoP)

Image Management

- Device image identification by content instead of image file name for Cisco NCS 1000 devices
- Distribution of images to any file system including folders in the root directory. For file systems with standby flash, the image is distributed to both the active and the standby flash and can be activated directly from either active or standby. New Image Details Verification tab enables you to choose the target file system. This feature is supported on NCS 42xx and ASR 907 devices.
- Ability to use Field Programmable Devices (FPD) image packages for the upgrade of FPDs during the image distribution and activation process. This feature is supported on NCS 1000 devices.

Optical Transport

- Ability to switch a circuit to its working path or protected path so that you can perform network maintenance activities without interrupting the service.
- Ability to provision an Optical Channel Data Unit User-to-Network Interface (ODU UNI) Hairpin circuit.

Carrier Ethernet

- CE service QoS support was enhanced to support Configuration QoS profile.

Traffic Engineering

- (Beta) TE tunnels can now start or terminate on NCS 4000 devices running IOS-XR 6.1.32 and higher.
- Ability to lock out an MPLS interface in order to do maintenance work on the TE tunnel link to which it belongs (Interface 360 view).

Circuit Emulation (CEM)

- CEM local connect service can now be created between two CEM groups on same controller port
- CEM service bandwidth usage calculation has been enhanced to include packet overhead.
- CEM service can be created on Ethernet ports using the following pluggables:
  - ONS-SI-OC-VCOP = OC3/OC12 over Ethernet Smart Pluggable
  - ONS-SI-PDH-VCOP = DS3 over Ethernet Smart Pluggable

Bandwidth Utilization

- For OTU links, you can now see exactly which channels are being used and which circuits are using the channels.

QoS

- While configuring QoS services on Cisco NCS 4000 devices, the Classification profile Traffic Class action can now be used to create and deploy QoS Classification profiles. This enables packets to be permitted based on the selected traffic class parameters.
- Discard Class action can be configured as part of the Classification profile for provisioning CE services using Cisco ME1200 devices.
- Committed Information Rate (CIR) parameter configured using QoS Action profiles can now be configured with appropriate CIR units such as kbps, mbps, and gbps.
- Ability to view QoS information for a selected service on a Cisco ME 1200 device in the Performance dashboard's ME 1200 EVC QoS tab

Topology

- Visualization of NCS 2000 devices that function as optical line amplifiers.
- The map now refreshes automatically. Manual refresh is not required.
- Visualization of CBR-8 devices in the map (and the geo map).

Geo Map

- Ability to manage SRRG assignments to NCS 2000 devices and links and visualize them in the geo map.
- Ability to search for a specific location in the map (address, town, country, etc.).
- The geo map now shows device groups that have a defined location, for example, devices in a building at a specific address.
- Ability to launch cable functionality from the geo map.

Multilayer Trace

- Ability to expand/collapse each device individually

Performance

- Y.1564 Carrier Ethernet EVC performance test enhancements
- Support for ME 1200 device as source or destination in Y.1564 performance test.

Reports

- (Beta) Ability to generate a report that indicates the number of link flaps that have occurred between selected devices within a specified time period.

- (Beta) Ability to generate a report that indicates the power level (Rx and Tx) for optical Small Form-Factor Pluggable (SFP) transceiver modules which are monitored and polled on every link discovered in Cisco EPN Manager.

RESTCONF NBI

- Alarm retrieval and handling enhancements:
  - Retrieve all alarms
  - Acknowledge, un-acknowledge, clear, and delete alarms
  - Retrieve all alarms for a given service
  - Retrieve all services for a given alarm
- Support for creating, assigning, and unassigning SRRGs
- Virtual connection filtering based on UNI and node
- Support for running LSP ping and traceroute tests
- MLT route retrieval improvements:
  - Retrieval of all topological layers
  - Retrieval of containing and contained endpoints
  - Retrieval of MLT routes for all virtual connections
- Fiber type and length retrieval as part of termination point retrieval
- (Beta) Support for L2VPN services on ME 1200 devices:
  - Support for NID to NID
  - Support for NID to remote building via MPLS
  - Support for E-Line NID to service edge
- Support for L2VPN services on NCS 4000 devices
- Protection switch action on protected path optical services
- Notification filtering:
  - Filtering by node attributes for any element: productType, productFamily, productSeries
  - Filtering by element types: RC_Node, Equipment, PhysicalConnector
- Support for early notifications for node creation
- Support for automatic rollback to the previous configuration of the devices. Response includes the CLI that was configured and an error message upon failure.

MTOSI NBI

- getRouteAndTopologicalLinks API enhancement to accommodate multiple midpoints

Device/OS Support Added in Cisco EPN Manager 2.1.1

This section lists the new support provided in Cisco EPN Manager 2.1.1. 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 support" means that the device/operating system has not yet been released but Cisco EPN Manager has been tested on the Beta version.

Cisco ME 1200 Series Carrier Ethernet Access Devices—New Device Support

Device Model	Device OS
Cisco ME 1200-4S-A	ME 1200 OS 3.19, 3.20

Cisco NCS 4200 Network Convergence Systems—New Operating System Support

Device Model	Device OS
Cisco NCS 4000	IOS-XR 6.1.3.2 (Beta support)

Cisco NCS 4200 Network Convergence Systems—New Device and Operating System Support

Device Model	Device OS
Cisco NCS 4201	IOS-XE 16.5.1, 16.5.1v1 IOS-XE 16.6.1 Special (Beta support)
Cisco NCS 4202	IOS-XE 16.5.1, 16.5.1v1 IOS-XE 16.6.1 Special (Beta support)
Cisco NCS 4206	IOS-XE 16.5.1, 16.5.1v1 IOS-XE 16.6.1 Special (Beta support)
Cisco NCS 4216	IOS-XE 16.5.1, 16.5.1v1 IOS-XE 16.6.1 Special (Beta support)
Cisco NCS 4216 F2B	IOS-XE 16.5.1, 16.5.1v1 IOS-XE 16.6.1 Special (Beta support)

Beta support for the following cards on NCS 4200 devices:

- NCS4200-1T16G-PS
- A900-IMA8CS1Z-M ASR 900 16 port GE C-SFP + 1 port SFP+ IM with MACsec
- A900-IMA8CT1Z-M ASR 900 8 port GE RJ45 + 1 port SFP+ IM with MACsec

Cisco NCS 5000 Network Convergence Systems—New Device Support

Device Model	Device OS
Cisco NCS 5011	IOS-XR 6.1.2

Cisco NCS 5500 Network Convergence Systems—New Device and Operating System Support

Device Model	Device OS
Cisco NCS 5508	IOS-XR 6.1.2
Cisco NCS 5516	IOS-XR 6.1.3

Cisco ASR 900 Series Aggregation Services Routers—New Operating System Support

Device Model	Device OS
Cisco ASR 902	IOS-XE 16.5.1, 16.5.1v1
Cisco ASR 903	IOS-XE 16.5.1, 16.5.1v1
Cisco ASR 907	IOS-XE 16.5.1, 16.5.1v1

Cisco ASR 901S Series Aggregation Services Routers—New Operating System Support

Device Model	Device OS
Cisco ASR 901S-4SG-F-D	IOS-XE 16.5.1, 16.5.1v1
Cisco ASR 901S-3SG-F-D	IOS-XE 16.5.1, 16.5.1v1
Cisco ASR 901S-2SG-F-D	IOS-XE 16.5.1, 16.5.1v1
Cisco ASR 901S-2SG-F-AH	IOS-XE 16.5.1, 16.5.1v1

Cisco ASR 901 10G Series Aggregation Services Routers—New Operating System Support

Device Model	Device OS
Cisco ASR 901-6CZ-F-A	IOS-XE 16.5.1, 16.5.1v1
Cisco ASR 901-6CZ-F-D	IOS-XE 16.5.1, 16.5.1v1
Cisco ASR 901-6CZ-FT-D	IOS-XE 16.5.1, 16.5.1v1
Cisco ASR901-6CZ-FT-A	IOS-XE 16.5.1, 16.5.1v1

Cisco ASR 920 Series Aggregation Services Routers—New Operating System Support

Device Model	Device OS
Cisco ASR 920	IOS-XE 16.5.1, 16.5.1v1
Cisco ASR 920 24SZIM	IOS-XE 16.5.1, 16.5.1v1
Cisco ASR 920 24TZM	IOS-XE 16.5.1, 16.5.1v1
Cisco ASR 920 24SZM	IOS-XE 16.5.1, 16.5.1v1
Cisco ASR 920-12SZ-IM	IOS-XE 16.5.1, 16.5.1v1
Cisco ASR920 4S ZD	IOS-XE 16.5.1, 16.5.1v1
Cisco ASR920 8S Z0A	IOS-XE 16.5.1, 16.5.1v1
Cisco ASR920 12 CZA	IOS-XE 16.5.1, 16.5.1v1
Cisco ASR920 4S ZA	IOS-XE 16.5.1, 16.5.1v1
Cisco ASR920 10S ZPD	IOS-XE 16.5.1, 16.5.1v1

Cisco NCS 4000 Network Convergence Systems—New Operating System Beta Support

Device Model	Device OS
Cisco NCS 4016	IOS-XR 6.1.32 (Beta support only)
Cisco NCS 4009	IOS-XR 6.1.32 (Beta support only)

Metro Core—New Operating System Support

Device Model	Device OS
Cisco ONS 15454	ONS 10.6.2

Note Only the WSON package is supported (device package name ending with W-SPA).

Cisco Network Convergence System 2000 Series—New Operating System Support

Device Model	Device OS
Cisco NCS 2002	ONS 10.6.2
Cisco NCS 2006	ONS 10.6.2
Cisco NCS 2015	ONS 10.6.2

Note Only the Flex and Legacy packages are supported (device package name ending with F-SPA and L-SPA respectively).

Cisco NCS 1000 Network Convergence Systems—New Operating System Support

Device Model	Device OS
Cisco NCS 1001	IOS-XR 6.2.1

5G Mode Cards Supported on NCS 42xx and ASR 90x Devices

The following cards are supported for NCS 42xx and ASR 90x devices running IOS-XE 16.5.1 or higher:

- A900-IMA4OS
- A900-IMA32D
- A900-IMA16D
- A900-IMA8D
- NCS4200-1T8S-10CS

Installation/Upgrade Paths

The following table lists the installation/upgrade paths for Cisco EPN Manager 2.1.1.

Note that:

- *PP = Point Patch*
- Cisco EPN Manager *2.x.x* = Cisco EPN Manager *2.x Maintenance Pack x*. For example, Cisco EPN Manager *2.1.1* = Cisco EPN Manager *2.1 Maintenance Pack 1*
- Cisco EPN Manager *2.1.0.x* = Cisco EPN Manager *2.1* installed with *point patch x*. For example, Cisco EPN Manager 2.1.0.1 = Cisco EPN Manager 2.1 with PP1.

If you have this deployment:	Perform these steps to install Cisco EPN Manager 2.1.1:
Cisco EPN Manager is not installed (fresh installation)	1. Install Cisco EPN Manager 2.1—See *Cisco EPN Manager 2.1 Installation Guide* 2. Install Cisco EPN Manager 2.1.1—See *Cisco EPN Manager 2.1.1 Installation Guide*
Cisco EPN Manager 1.2.*x or 2.0.x*	1. Upgrade to Cisco EPN Manager 2.1—See *Cisco EPN Manager 2.1 Installation Guide* 2. Install Cisco EPN Manager 2.1.1—See *Cisco EPN Manager 2.1.1 Installation Guide*
Cisco EPN Manager 2.1, 2.1.0.1, 2.1.0.2, or 2.1.0.3	1. Install Cisco EPN Manager 2.1.1—See *Cisco EPN Manager 2.1.1 Installation Guide*

Important Notes

TLS 1.2 Required for Secured Channel Communication for HTTPS and TLS

As of Cisco EPN Manager 2.1, 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, they must be upgraded. Where 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

When provisioning a service, if you have not provided a value for any of the attributes, the provisioned value for those attributes will be displayed as “Missing” in the reconciliation report. The device may have default values for these attributes but Cisco EPN Manager does not have any values configured.

Limitations on ME 1200 Devices

- **Manual sync required**—Configuration changes to ME 1200 devices are not automatically discovered by Cisco EPN Manager. After making a change, you must manually sync the device. To do this, select the required device(s) in the Network Devices table and click **Sync**.
- QoS profiles are not supported for service provisioning on ME1200 devices.

Data Center Device Lifecycle Support Only

Cisco EPN Manager 2.1.1 provides foundation lifecycle support for UCS compute systems, CSR 1000v, and Nexus series devices but does not provide data center topology.

Data Migration Issues

After installing Cisco EPN Manager 2.1.1 on top of Cisco EPN Manager 2.1:

- User-defined QoS profiles for CE services created in Cisco EPN Manager 2.1 cannot be used in Cisco EPN Manager 2.1.1.

Force Failover Not Supported

In a high availability environment, if you want to switch to the secondary server, do not use the Force Failover function as it might cause HA configuration corruption and instability of the servers.

Use this procedure to switch to the secondary server:

1. Log in to the primary and secondary servers as the Cisco EPN Manager CLI admin user.
2. Verify that the primary server's status is **Primary Active** and the secondary server's status is **Secondary Synching** by running the **ncs ha status** command.
3. Stop the primary server by running the **ncs stop** command.
4. If your HA system is configured to use manual failover, log into the secondary server's Health Monitor web page and click the **Failover** button in the **Action** column.

   If your HA system is configured to use automatic failover, the secondary server will become active automatically a few of minutes after stopping the primary server.

Cisco EPN Manager Bugs

Open Bugs

Table 1 lists the open bugs in Cisco EPN Manager Release 2.1.1 according to the following criteria:

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

Click the identifier 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.

Table 1 Open Bugs

Identifier	Description
CSCve61353	On receiving controller up/down, existing service goes to admin down and then changes to down or up
CSCve61351	After creating CEM service, status is admin down and after some time it changes to oper down
CSCve61286	Missing links in topology after upgrading to EPNM 2.1
CSCve61241	isisDatabaseOverload trap is not generating events with correct severity
CSCve61234	MPLS tunnel down - service to alarm association not working for CEM service intermittently
CSCve61165	Error in retrieving tunnel information for Bidirectional TE for modified EPL service
CSCve63424	NBI Restconf: ETree Amend operation failing with HibernateOptimisticLockingFailureException

Table 1 Open Bugs

Identifier	Description
CSCve63117	Wrong endpoints showing in 360 degree view/overlay
CSCve61222	Under BGP "neighbor 32.81.94.2 update-source TenGigabitEthernet0/10/8" is not required
CSCve57151	CFM incompletely configured if no performance measurement probe is configured
CSCve63452	'Bottom n Interface Availability' dashlet availability status bar shows wrong colors
CSCve55330	Modifying OAM PM profile from 3 to 2 is causing configuration leftovers
CSCve56348	Server does not show T1 controllers 0/1/0 and 0/1/7 for NCS 4202 during circuit creation
CSCvc10942	SONET controller down - DS1 port is taking very long time to go down
CSCvc56408	Overlay map is not showing for A end to Z end for unidirectional tunnel interface
CSCvc67419	cbr8 inventory collection taking hours
CSCvd36191	360 view issue: Multilayer trace (MLT) is not working as expected for Bi-directional tunnel on UI
CSCvd63303	Overlay map is not showing on UI after creating Bi-directional tunnel between end points
CSCve06825	Node stuck in Partial Collection failure
CSCve32808	Long running queries on MtosiTerminationPoint
CSCve46670	Connectivity between remote tunnel to central office is missing on Z side
CSCve47072	Services are showing down on EPNM after card reload
CSCve53335	Not able to create EVPL service because unnecessary VLAN allocation popup keep coming up
CSCve53603	UC5 Modify fails with LazyInitializationException in the log
CSCva54469	Scheduled 1 Day Optical Performance Reports Run Results have no data
CSCvb45995	Warning/Error Messages from CLI are Not handled for all MBC Features
CSCvc96165	Not able to promote an EPNL when pseudowire-class is not defined
CSCvd03041	Cannot promote service on the same device
CSCvd08179	Civic location - add ability to set only one of the fields Building, Floor & Room
CSCvd10199	Modifying multiple devices civic location when there is profile causes removal of all info
CSCvd13056	EPNM tries to connect to various external websites
CSCvd18743	Template Based Config Mulitple or single device retrieval missing details
CSCvd28785	Inconsistent timestamps in the GUI
CSCvd45377	Bundle-Ether interface configured with EPNM not selectable for device during CE UNI service provisioning
CSCvd48190	NCS42xx devices go into continuous sync state due to LSP path tear events flooding

Table 1 Open Bugs

Identifier	Description
CSCvd71782	DSCP Classification dashlet shows out of range value in Rate column
CSCvd78473	Alarms forwarded have wrong values in some fields
CSCvd85066	Create of Ethernet SubInterface is not populating data for all the columns in protocolendpoint table
CSCvd91155	Create EPL - > setting performance probes - > multiple profiles issue
CSCvd92327	Need device name for Wired Module Detail Report
CSCve22426	CEM MLT API response does not contain all the info related to CEM/PW/TE layers
CSCve30949	Compliance audit Profile creation, job audit etc is not working after upgrade
CSCve37226	Latitude and Longitude blank update failed
CSCve38848	STS48 CEM modification fails
CSCve44631	Duplicate policy raises new set of TCA's and does not clear after deleting the policy
CSCve45622	Attaching QoS Policy to ASR9K sub interface which is part of L3VPN will fail
CSCve46597	ASR903 Collection failure due to feature LogicalBridge
CSCve46882	Importing QoS policy with "set mpls topmost 0" will be imported with -1 value
CSCve46894	setting DSCP in a policer for IOS-XR devices has the "exceed-action set dscp" twice
CSCve47298	Classification Profiles match DCSP allows 8 values like in device but does not allow multiple lines
CSCve47346	Dashlet Interface Availability shows all interfaces in 0-25% range
CSCve49265	Deploying Classification profile with override option fails when class-map in use
CSCve49269	Deploying Action profile with override option fails when class-map in use
CSCve49718	Power level: time period selection window is missing
CSCve51015	Message if not source nor destination is correct
CSCve55563	Imported Images not listing in Software repository
CSCuw80244	The "Filter" icon in Alarms and Events does not function as expected.
CSCvd90037	All alarms supported by PI need to be documented as supported for EPNM

Resolved Bugs

Table 2 lists bugs that have been resolved since the last release. Specifically, it lists bugs that were listed as open bugs in the Cisco EPN Manager 2.1 release notes that have been resolved in Cisco EPN Manager 2.1.1.

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

Table 2 Resolved Bugs

Identifier	Description
CSCvc28763	A9K-400G-DWDM-TR on chassis ASR9904 Laserbeak CFP2 ports is not showing
CSCvd13552	Scale: Many scheduled reports fail
CSCvd42457	Modify CEM - Changing the preferred path takes more than 30 minutes for service state to come up
CSCvd44833	(IOS devices) EVPTREE- Serviceability state shows Down status, but the interfaces are up
CSCvd52385	E2E - EVPTREE: Topology displays deleted end point devices after 2nd modification.
CSCvd62860	Circuit 360: bidirectional tunnel showing unknown endpoint
CSCvd71399	E2E: Device going to Collection Failure
CSCvd78137	Proper CLI should be generated for explicit path with protection under below scenario
CSCvc49746	Inconsistent handling device name hyper-link for readability alarm
CSCvd44601	QoS Policy Report SQL Optimizations
CSCvd44625	QoS Policy report generates both the table and graph view in the same report
CSCvd45477	Rounding of QoS policy class map traffic dashlet view values introduces inaccuracy
CSCvd71395	MPLS TE Upgrade: L3link and TE Tunnels modify orders are failing with error 500.
CSCvd73125	Serviceability and severity shows "No data available" on Link 360
CSCvd78168	Cleared GUI setting is a blank page and does not restore values with "restore default system settings"
CSCvd79400	Delete generates incomplete CLI commands for CEM service CESoPSN DS0 circuit
CSCvd81615	Policier action - PRI shows bytes, when it should be bps (bits per second)
CSCvd71470	Deleting CE service does not work properly - PW class CLI is not removed
CSCvd73921	ODU UNI and OCH-CC circuit provisioning have associated ODU tunnel and OCH Trails duplicated
CSCvd75201	E2E:- EVPTREE: 1 managed Endpoint Missing in 360 View and connection not displayed in Topology View
CSCvc82773	Events/Alarm export fails to export correct data in certain scenarios

Table 2 Resolved Bugs

Identifier	Description
CSCvd71578	Interface traffic and errors and discards report failure- CFS table- Obsolete design reference
CSCvd31760	C360 KPI data not displayed for partial CEM services
CSCvd66172	QoS report failed to run with "Unable to retrieve data" error
CSCvd71798	E2E: EVPL: Error 500 thrown while deleting EVPL Service.
CSCvd73803	Image distribution using SFTP fails for NCS4k
CSCvd78083	Syslog export not happening with show all and export pop not loading with IE
CSCvd80925	Rollback does not work when the service deployment is failed
CSCvd81296	Missing link included on TE service links
CSCvb67689	CPAK Lane missing in the Multi-trace for NCS4K

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.

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 2.1.1, see the *Cisco Evolved Programmable Network Manager 2.1.1 Documentation Overview*. The documentation overview also lists several Cisco Prime Infrastructure documents because the content of those documents is relevant to Cisco EPN Manager 2.1.1.

Accessibility Features in Cisco EPN Manager 2.1.1

For a list of accessibility features in Cisco EPN Manager 2.1.1, please contact accessibility@cisco.com.

All product documents are accessible except for images, graphics and some charts. 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* at: http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html.

Subscribe to *What's New in Cisco Product Documentation*, which lists all new and revised Cisco technical documentation, as an RSS feed and deliver content directly to your desktop using a reader application. The RSS feeds are a free service.

This document is to be used in conjunction with the documents listed in the "Related Documentation" section.