

Cisco Prime Network 5.0 Release Notes

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Introduction

Cisco Prime Network 5.0 provides service providers and other network operators with a comprehensive assurance and device management solution for IP next-generation networks (NGNs), mobility, data center, and cloud. It is offered as a standalone application and as a fully integrated component of the Cisco Prime Carrier Management suite for customers needing end-to-end network management lifecycle capabilities. It provides standards-based interfaces to integrate with OSS applications.

The Cisco Prime Network 5.0 primarily supports the following new technology features and enhancements:

- Distribute and configure StarOS bulkstat files
- Generate and export Detailed Standard Events report from Vision, Administrator, and Events clients.
- Port descriptions as part of tickets information are forwarded to NBI.
- Enhancements to physical and logical attributes of devices over MTOSI API.
- Enhancements on Auto-restart ENS feature to detect when ENS is down.
- LDAP setting improvements over HA/GR Switchover.
- Export device configuration in Chane Configuration Management.
- Multi-layer quick filter in Change Configuration Management.
- Commit label enhancement to permit text format.
- Modification of default storage path for device software upgrade.
- Enforce use of SNMPV2 for 3rd party devices.

The Cisco Prime Network 5.0 primarily supports the following platform specific features and enhancements:

- RedHat 7.2 with latest RPMs.
- Oracle 12.1.0.2 upgrade with latest Critical Patch Updates (CPUs).



Prime Network supports third-party devices through Cisco Advanced Services engagement. As of release 4.2, Prime Network will not natively support third-party devices, and a Cisco Advanced Services contract will be required for their enablement and support.

New Features and Enhancements

The following topics describe the new features and enhancements introduced in Prime Network 5.0:

- Enhancements in Prime Network Vision, page 3
- New Technology Support in Prime Network 5.0, page 4
- Installation and Upgrade, page 4
- Administration, page 4
- New Module Support for Devices, page 6

Enhancements in Prime Network Vision

The following enhancement is described in the Cisco Prime Network 5.0 User Guide:

Detailed Standard Events report for all users

Prime Network supports Detailed Standard events report for devices from Vision, Administrator and Events clients. The administrator can provide access privileges to users based on user's requirements Provision to create the detailed standard events reports for all users based on the severity and events filters. Provision to generate and export reports in different formats such as PDF, XML, CSV, HTML and XLS.

Export device configuration support in Change and Configuration Management

In Change and Configuration Management (CCM), enable Periodic All Config Export periodic options to export devices information based on the specified interval, irrespective of the last modification on the Archive

Multiple layer Quick filter support in Change and Configuration Management

Prime Network supports multilayer advance filters to easily query device items. You can save preset filters for the selected device during a compliance audit, modify the filters to add or remove new device information, element types and so on, and save the filter again as a different name. When the system job is run, you can export all configuration data irrespective of the last modification done on the archive.

Distribute and configure StarOS bulkstat file

Prime Network 5.0 supports copying of multiple bulkstats file along with images to StarOS devices during distribution operations. This feature is supported on ASR 5500, SI and DI devices.

Device physical and logical attributes over MTOSI API

Prime Network 5.0 supports four APIs on MTOSI.

- Software Version for Line Card, Fan Tray, and Power Supply
- IfType
- Duplex Mode
- SupportedBandwidth



Prime Network Integration Layer (PNIL) 2.0 supports MTOSI Duplex Mode attribute. This Duplex Mode attribute is visible in NBI SOAP response only if Prime Network have this duplex mode support for a particular device type.

The enhanced operations for Supported Version and iftype attributes are:

- 1. getallEquipment
- 2. getcontainedEquipment
- 3. getEquipment

The enhanced operations for Supported Bandwidth and Duplex Mode attributes is:

getAllSupportePhysicalTerminationPoints

For more information, see Annexure 1 Prime Network OSS Integration SOAP Request and Response

From Prime Network 5.0 onwards, to collect the inventory data with the device details, you can use the new SNMPV2 PDUs from the Vision client, the Command builder, Command manager, and Transaction manager to communicate with the devices. Enhancements been made to the SNMP version by adding the Enum version 4 to create multiple VNES through Xls.

New Technology Support in Prime Network 5.0

Prime Network supports Csr1kv with 16.6.1 software version and the following supported technologies.

- VRF Static routes in Prime Network 4.3, 4.3.1, and 4.3.2 versions
- AAA Radius in Prime Network 4.3.1, 4.3.2 versions.
- TACACS+ in Prime Network 4.3.1, 4.3.2 versions.

Installation and Upgrade

The following installation and upgrade features and enhancements are described in the *Cisco Prime Network 5.0 Installation Guide*:

Platform: RedHat 7.2 support with latest RPMs

- Red Hat 7.2 64-bit Server Edition (English language) is supported in Prime Network 5.0. It can run in a virtual environment and is supported on VMware ESXi version 5.5 and 6.0.
- Install Prime Network GUI clients from thick and thin clients in a remote PC (Windows 10 OS).

Oracle Patch update

- Oracle 12.1.0.2 upgrade on both external and embedded with latest Critical Patch Updates (CPUs).
 - Supports cluster configuration for Pacemaker and Corosync setup. In RHEL7.2 onwards Pacemaker is the default cluster resource manager.



Note

Operations report (OR) is not supported on RHEL 7.2.

Upgrade improvements.

You can upgrade Prime Network 5.0 in Geographical redundancy setup without network down time. For more information, see Upgrading Prime Network in Geographical Redundancy without Network Down Time section in the *Prime Network 5.0 High Availability guide*.

Commit Label Enhancements to Permit Text Formats

As part of Prime Network CCM configurations, to prevent a backup failure you can permit backup configuration operations as a text format commit label in IOS XR devices instead of auto generated numeric value commit label. You can view the commit values with text formats in the CCM application under the archive page.

Administration

The following new enhancements are described in the Cisco Prime Network 5.0 Administrator Guide:

SNMP Enhancements

You can enforce use of SNMPv2/SNMPv3 for 3rd party devices. To create a Discovery profile with SNMPv2 credentials, user can create or Run a Discovery Profile, create a VNE, run the job. To change the SNMPv2 version, if required, you need to run the script in PN when the Prime Network is in "Down" status.

System Accounts Enhancements

Ability to change the Prime Network OS user name and Orace database user name after Prime Network installation. To change the OS user or/and database user name from the Standalone mode or from the gateway unit, change of Prime Network user requires FTP configurations on the devices. For more information see the section *Changing a System Account of the OS User Name or/and Database User Name* in the topic *Configuring Prime Network Post-Installation* in the *Cisco Prime Network 5.0 Administrator Guide*.



System Account is supported only on the Standalone setup and not supported on Local and Geo HA

Security Enhancements

In Prime Network 5.0, you can limit users to view only their process when executing "ps-ef" in /proc. .

Note: The security protection is enabled automatically at server boot time.

If there is an existing Hidepid entry on the/etc/fstab along with the mount execution command, and if the mount is busy during install the following warning message is displayed.

"Enable mount-0remount,rw,hidepid=2/proc as root user to enable the hidepid=2 feature."

During uninstallation process Prime Network does not remove hidepid=2 entry on the etc/fstab automatically if updated during installation. You need to manually remove the hidepid entry from /etc/fstab and reboot the system to disable Hidepid=2.

Note the following:

By default the hidepid=2 entry will not be updated in unit machines /etc/fstab.

To update /etc/fstab with hidepid=2 entry in unit machines, follow the below steps:

- 1. Open /etc/fstab
- **2.** Update hidepid=2 under /proc.

proc /proc proc defaults, hidepid=2 0 0

- **3.** Save and quit.
- 4. Log in to the Unit Server.
- **5.** Execute the following script as a root user:

<PNHOME>/local/scripts/updateFSTAB.pl

Port description to be part of ticket and NBI

Choose additional ticket information option in the User Customized field to display Port/IP Interface description for a ticket in the trap notification. The port description as part of the ticket information shall also be sent to the Prime Central in the 5th customizable field for tickets automatically during integration with Prime Central client.

Auto-restart ENS enhancement to detect when ENS is down

In Prime Network 5.0, the ENS can be started automatically when the service is down due to TCP connection error or due to other error conditions.

LDAP Authentication Support

In Prime Network 5.0, user authentication can be performed by using **AD search scope**, an LDAP authentication setting. You can choose any one of the options namely, Within Group or Subgroup, Within Domain, or Entire directory to perform the user authentication.

Also, Prime Network 5.0 switch or failover scripts have provision to prompt for AD Search Scope options. Both LDAP and AD Search Scope are stored in the Registry file.

LDAP Setting improvements over HA/GR Switchover



This enhancement is implemented from HA scripts.

Memory monitoring for ASA devices

Prime Network supports change of memory monitoring OIDs on ASA devices thus processing the returned values and displaying to the user.

Upgrade improvements

You can upgrade Prime Network 5.0 in Geographical redundancy setup without network down time.

For more information, see the Upgrading Prime Network in Geographical Redundancy without Network Down Time section in the *Prime Network 5.0 High Availability guide*.

New Device Support Information

No New Device support is provided in Prime Network 5.0.

New Module Support for Devices

Prime Network 5.0 introduces module support for devices in the device packages released during July DP1707, September DP 1709 and November DP 1711. Additional device support will be available in the next DP. For more information about the module support of devices download the *Cisco Prime Network* 5.0 Supported Cisco VNEs—Addendum document on the Prime Network download site on Cisco.com.

Important Notes

This section provides important information of which you should be aware before using Prime Network 5.0.

Installation and Upgrade

Before performing any fresh installation of High Availability (HA), ensure that any label used by any cluster service to name a distinct block device on any node in the cluster, must be unique across all block devices on the nodes of the cluster. You need to run the command on all nodes of the cluster, and cross check across all results before configuring local HA cluster because, a label used in a cluster service may not be reused by any block device with a different UUID which is listed by command 'blkid'.

Non-Starting of Compliance Engine

If the compliance engine does not start, follow the below steps:

- Before upgrading to 5.0, take the backup file **nccmDatabase.properties** that is located in PNHOME/utils/independent/compliance/resources/server/global/nccmDatabase.properties.
- After upgrading to 5.0, replace the backed up file **nccmDatabase.properties**.
- Perform cmctl restart.

UnConfigured VDC

- The Unconfigured VDC in the logical inventory shows configuration detail with empty data.
- Differentiation between Unconfigured VDC and suspended VDC in Prime Network is not available.

PN-IL Health Monitor

By default, the PN-IL health monitor is disabled.

CCM Environment Limitations

- 1. The XMP process requires 64-bit Java environment.
- 2. The number of Linux memory pages should be increased to 8718 to support CCM.

To increase the Linux memory page size, perform the following steps:

- **a.** Login to the Linux server as a pnuser.
- **b.** Increase the number of pages in the server by entering the following command: sysctl -w vm.nr hugepages=8718
- **c.** View the changes by entering the following command: cat /proc/meminfo | grep Huge.

Limitations in Compliance Manager

- 1. In Compliance Audit, few system AAA service policies show incorrect audit violations. For more information, see CSCvm56361.
- 2. In Compliance Audit, few Fix CLI commands are applied twice. For more information, see CSCvm84162.

Workflow and Activation Replaced With Transaction Manager

Activation and workflow features have been replaced with Transaction Manager. These features are no longer available in Prime Network.

Configuration Audit Features Available Only upon Upgrade

The configuration audit feature in Change and Configuration Management is deprecated and is being replaced with Compliance Audit. When you upgrade to Prime Network Version 5.0, the system prompts you about the Configuration feature. Based on your input, the Configuration Audit feature is enabled or disabled.

Cable Technology - uBR10K Devices

For uBR10K devices, cable modeling for Upstream and Downstream channels and complete modeling for the MC20X20V and MC3GX60V line cards will be only supported from versions 12.2(33)SCG5 and higher.

Browser Limitations for Prime Network Web Components

In Firefox 24, users might not be able to connect to the Prime Network 5.0 web server to use features such as VCB, Network Discovery, and CCM, using Firefox 24 if the gateway IP address is a raw IPv6 address. This issue seen because of Firefox defect. To avoid this issue, log in to Prime Network 5.0 using a hostname instead of an IP address.

Automatic Restart After Gateway Reboot

Prime Network 5.0 will restart automatically whenever the gateway server is restarted. This behavior can be disabled (so that Prime Network 5.0 has to be manually started after a gateway restart). See the Cisco Prime Network 5.0 Administrator Guide for more information.

Auto-Discovery of Unsupported Modules

Auto-discovery of unsupported module types is done on a best effort basis and is based on standard information which is reported by the device as part of the ENTITY-MIB. Operators are advised to validate that the discovery was fully successful. If not, add support for the specific module type using the VCB.

Prime Network 5.0 Bugs Using Bug Search Tool

Use the Bug Search tool (BST) to get the latest information about Cisco Prime Network 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.

Bug Search allows you to:

- Quickly scan bug content
- Configure e-mail notifications for updates on selected bugs
- Start or join community discussions about bugs
- Save your search criteria so you can use it later

When you open the Bug Search page, check the interactive tour to familiarize yourself with these and other Bug Search features.

Log in to the Bug Search Tool. Step 1

- **a.** Go to https://tools.cisco.com/bugsearch/.
- 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 search for bugs in the current release:

- **a.** Enter **Prime Network 5.0** in the Search For field and hit Return. (Leave the Product, Software Type, Release, and Show Bugs fields empty.)
- **b.** When the search results are displayed, use the filter and sort tools to find the types of bugs you are looking for. You can search for bugs by severity, by status, how recently they were modified, according to the number of support cases associated with them, and so forth.

If you know the bug ID, simply enter it in the Search For field and hit Return.

Open Bugs in Prime Network 5.0

Table 1 lists the open bug in Cisco Prime Network 5.0 release. Click the Bug ID to view the impact and workaround for the bug in the Bug Search Tool. Use this tool to track the status of the open bug.

Table 1 Open Bugs

Bug ID	Description
CSCvg79747	PN4.3.2.0.2-OR still can connect to PN-GW:8445 with TLSV1 when security hardening is enabled.
CSCvh76648	Error during PN installation after un-install.
CSCvh92110	Prime Network not forwarding ticketable traps.
CSCvh97034	During Upgrade scenario Webserver and Compliance Engine is down after running the MechID script.
CSCvi04780	Hide PID entry not reflected in standby during upgrade in Local HA.

Resolved Bugs in Prime Network 5.0

You can find detailed information about all resolved bugs in Release 5.0. For more information, see Prime Network 5.0 Bugs Using Bug Search Tool, page 8.

This search uses the following parameters:

Table 2 Resolved Bugs

Field	Parameter
Product drop-down list	Choose Series/Model and enter Cisco Prime Network.
Releases drop-down list	Choose Affecting or Fixed in these Releases and enter 5.0.
Filter	Choose Fixed from the Status drop-down list.

Bugs Resolved in Earlier Releases but Still Open in Prime Network 5.0

The bugs listed in Table 3 were identified too late in the Prime Network 5.0 development cycle to be fixed for this release. The fixes for these bugs have been provided to customers running older versions of the product as needed and are scheduled for inclusion in the next release.

Table 3 Bugs Resolved in Earlier Releases but Still Open in Prime Network 5.0

Bug ID	Description
	Not applicable.

Accessibility Features in Prime Network 5.0

The Prime Network 5.0 software does not provide accessibility features. 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 "Accessibility Features in Prime Network 5.0" section.

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