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Cisco Prime Network Registrar 8.3.4 Release Notes

June 14, 2016

These release notes provide an overview of the new and changed features in Cisco Prime Network Registrar 8.3.4, and describe how to access information about the known problems in Cisco Prime Network Registrar 8.3.4.

Note: You can access the most current Cisco Prime Network Registrar documentation, including these release notes, online at:

http://www.cisco.com/en/US/products/ps11808/tsd_products_support_series_home.html

Contents

This document contains the following sections:

Introduction

Cisco Prime Network Registrar is comprised of these components:

- An Authoritative Domain Name System (DNS) protocol service.

- A Caching DNS service.

- A Dynamic Host Configuration Protocol (DHCP) service.

Cisco offers these components as individually licensed applications or in a mix of suites.

In addition, for IP address management, you can deploy Cisco Prime Network Registrar IPAM, or you can integrate it with the DHCP and DNS components of Cisco Prime Network Registrar.

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Before you Begin

Before you install Cisco Prime Network Registrar 8.3.4, review the system requirements and licensing information available in the *Cisco Prime Network Registrar 8.3.2 Installation Guide.*

Note: If you are migrating to Cisco Prime Network Registrar 8.3.4 from an earlier version of Cisco Prime Network Registrar, you must review the release notes for the releases that occurred in between, to fully understand all the changes.

Cisco Prime Network Registrar DHCP, Authoritative DNS, and Caching DNS components are licensed and managed from the Cisco Prime Network Registrar regional server. All services in the local clusters are licensed through the regional cluster. Only a regional install requires a license file and only the regional server accepts new license files. Then the regional server can authorize individual local clusters, based on available licenses.

Note: Licenses of Cisco Network Registrar 7.x or earlier are not valid for Cisco Prime Network Registrar 8.x.

Cisco Prime Network Registrar IPAM is licensed separately from Cisco Prime Network Registrar DHCP, DNS, and Caching DNS. When installing IPAM, you will be asked to install as a separate process using a separate license key. To receive the IPAM license, you must purchase Cisco Prime Network Registrar IPAM, either individually, or as part of a Cisco Prime Network Registrar suite.

For more details about Licensing, see the License Files section in the Overview chapter of the *Cisco Prime Network Registrar 8.3.2 Installation Guide*.

The Cisco Prime Network Registrar 8.3.4 kit contains the following files and directories:

- Solaris—Solaris 10 installation kit.

Note: The last date of support on Solaris for all 8.x PNR releases (that is, 8.1, 8.2, and 8.3) will be July 2017.

- Linux—Red Hat Linux ES 5.x/6.x installation kit.

Note: Cisco Prime Network Registrar 8.3.4 supports two Linux kits—32-bit applications and 64-bit applications.

- Windows—Windows Server 2008 R2 installation kit.

- Docs—Pointer card, Bugs, Enhancement List.

The Cisco Prime Network Registrar also ships as a virtual appliance which includes all the functionality available in Cisco Prime Network Registrar along with the CentOS 6.5 operating system. For more details, see the Cisco Prime Network Registrar Virtual Appliance section of the *Cisco Prime Network Registrar 8.3.2 Installation Guide*.

Market Segment Specific Licensing

Cisco Prime Network Registrar introduced separate licenses for the components (System, DHCP, DNS, and CDNS) in release 8.0. For information on the Cisco Prime Network Registrar component-based license set, see the License Files section of the *Cisco Prime Network Registrar 8.3.2 Installation Guide*.

Since release 8.1.2, Cisco Prime Network Registrar license types are offered specific to market segments. Market-specific licensing generates license keys for use by market segments, that is, Service Provider, Smart Grid, and others. Cisco Prime Network Registrar features are enabled based on the market segment specific license you choose.

Cisco Prime Network Registrar currently offers the following two sets of market segment based licenses:

- PNR

- PNR-SG

Note: If the licenses for both market segments are installed, then only the PNR license will be active.

The PNR license offers features designed for the Enterprise and Service Provider market segment whereas the PNR-SG license offers features designed for the Smart Grid market segment.

The regional server which uses the PNR-SG license can be converted to PNR by installing the PNR license. Local cluster licenses will be converted automatically at the next compliance check, or can be manually updated by resynchronizing the local cluster.

For a given market segment license, only the counts from corresponding market segment license will apply.

For example, if the PNR count license is applied when the PNR-SG base license is active, the Right to Use count will not be updated. If the PNR-SG count license is applied when the PNR base license is active, the Right to Use count will not be updated.

PNR Licenses

The PNR license provides all the features available for the Cisco Prime Network Registrar release you install. If your license set was issued for a release earlier than 8.1.2, it is a PNR license.

PNR-SG Licenses

The PNR-SG license offers all the PNR features with the exception of (identified as not necessary for Smart Grid Implementations):

- Tenants

- External Authentication (RADIUS and Active Directory (AD))

- DHCP Extensions

- Lightweight Directory Access Protocol (LDAP)

- TCP Listeners (lease notification)

- Trivial File Transfer Protocol (TFTP)

- Router Interface Configuration (RIC)

- Regional lease history

- Regional subnet utilization history

- Bring Your Own Device (BYOD)

Note: Before you install Cisco Prime Network Registrar 8.3.4, review the system requirements and licensing in the *Cisco Prime Network Registrar 8.3.2 Installation Guide*.

Interoperability

Cisco Prime Network Registrar 8.3 uses individual component licenses. This allows users to purchase and install DHCP services, Authoritative DNS and Caching DNS services, and IPAM services individually, or as a suite.

When you purchase the full set of Cisco Prime Network Registrar components, you receive a license package for IPAM, and a separate license for Cisco Prime Network Registrar DHCP and DNS components (Authoritative and Caching DNS).

Customers ordering the DDI bundle would obtain a quantity one of the Caching DNS when they acquire the DNS authoritative license. If they need additional DNS caching licenses they are ordered based on Server count since DNS caching is a server based license.

To install and manage DHCP, DNS, and Caching DNS licenses, you must establish a regional server. The regional server is used to install, count, and manage licensing for these components. The Cisco Prime Network Registrar IPAM license is installed separately and does not use the regional server.

The synchronization between version 8.3 and pre-8.3 local clusters must be done from an 8.3 regional cluster. Cisco Prime Network Registrar 8.3 protocol servers interoperate with versions 7.2 or later except as noted below.

- Cisco Prime Network Registrar 8.2 and later DHCPv4 failover servers do not interoperate with versions prior to 8.2. Therefore, if you are upgrading from 8.1 and earlier to 8.2 and later, you must upgrade both failover partners. Also, any firewalls need to be updated to allow TCP traffic on the failover port (547). And, for 8.2 and later failover extends to DHCPv6.

- The HA protocol version has been updated in Cisco Prime Network Registrar 8.0 and communications with earlier versions is not supported.

- By the nature of the EDNS0 protocol, Cisco Prime Network Registrar 8.3 DNS servers interoperate with earlier versions of Cisco Prime Network Registrar DNS (and third party DNS vendors). EDNS0 defines the interoperability with DNS servers that do not support EDNS0. Cisco Prime Network Registrar 8.3 DNS adheres to the RFC and consequently interoperates with earlier versions of Cisco Prime Network Registrar.

- Cisco Prime Network Registrar 8.3 DDNSv6 interoperates with Cisco Network Registrar 7.0 and later DNS servers because of the use of the DHCID RRs (in place of TXT RRs for DDNSv6).

- Cisco Prime Network Registrar 8.3 does not interoperate with Cisco Prime Network Registrar IPAM 8.1.1 or 8.1.2. An updated version of Cisco Prime Network Registrar IPAM is required to interoperate with Cisco Prime Network Registrar 8.3.

New Features and Enhancements

Cisco Prime Network Registrar is now available for direct installation on a KVM Hypervisor. It has been tested to operate on a KVM Hypervisor running on Red Hat Enterprise Linux 7.2 and Linux CentOS 7.2. For more information, see the following section.

Installation of Cisco Prime Network Registrar on a KVM Hypervisor

To install Cisco Prime Network Registrar on a KVM Hypervisor, extract the distribution tar archive (cpnr_8_3_4_local.kvm.tar.bz2 and cpnr_8_3_4_regional.kvm.tar.bz2) using the following command:

```
root$ tar xvjf cpnr_8_3_4_local.kvm.tar.bz2
```

Note: The extraction takes a few minutes and also, it requires a minimum of 30 GB free disk space.

You should see the following files:

- cpnr_8_3_4_local-disk1.raw—contains the system disk for the virtual machine

- cpnr_8_3_4_local-disk2.raw—contains the data disk for the virtual machine

- installonkvm—installs the virtual machine

- readme.kvm.txt—contains the installation instructions

The first two files (-disk1.raw and -disk2.raw) are the actual files that will be used as the disk files for the resulting CPNR KVM virtual machine. These files should be placed in the directory where you want them to reside long-term as the "source path" for the virtual disks in the CPNR KVM virtual machine. While you can move them even after the virtual machine is installed, it is easier to start with them in the correct location. You should move the **installonkvm** script along with them. The **installonkvm** script needs to be executable in order to operate correctly.

To proceed with the installation, follow the instructions as specified in the **readme.kvm.txt** file.

Cisco Prime Network Registrar Bugs

For more information on a specific bug or to search all bugs in a particular Cisco Prime Network Registrar release, see Using the Bug Search Tool, page 5.

This section contains the following information:

- Resolved Bugs, page 5

- Enhancement Features, page 5

- Using the Bug Search Tool, page 5

Resolved Bugs

In Cisco Prime Network Registrar release 8.3.4, several significant failover bugs related to DHCPv6 are fixed (see CSCuz89629, CSCuz93524, and CSCuz92787 in the cpnr_ipx_8_3_4_buglist.pdf file). We recommend that all customers using Cisco Prime Network Registrar releases 8.2 to 8.3.3 with failover (and especially those using DHCPv6), upgrade to release 8.3.4 as soon as possible.

Table 1 on page 5 lists the key issues resolved in the Cisco Prime Network Registrar 8.3.4 release.

Table 1   Resolved Bugs in Cisco Prime Network Registrar 8.3.4

Bug ID	Description
CSCuv35694	Require authentication for server info
CSCuv59262	Increase default number of files and/or file sizes for server logging
CSCuy41269	CLI documentation erroneously lists -V option
CSCuy74409	cnr_exim does not export reservations with -c dhcp

For the complete list of bugs for this release, see the cpnr_ipx_8_3_4_buglist.pdf file available at the product download site. See this list especially for information about fixes to customer-reported issues.

Enhancement Features

Table 2 on page 5 lists the key enhancement features added in the Cisco Prime Network Registrar 8.3.4 release.

Table 2   Enhancement Features Added in Cisco Prime Network Registrar 8.3.4

Bug ID	Description
CSCuh09373	Add new IANA assigned option definitions
CSCux35956	Include relay address in DHCPv6 incoming packet logging

For the complete list of enhancement features added in this release, see the cpnr_ipx_8_3_4_enhancements.pdf file available at the product download site.

Using the Bug Search Tool

Use the Bug Search tool to search for a specific bug or to search for all bugs in a release.

1. Go to http://tools.cisco.com/bugsearch.

2. At the Log In screen, enter your registered Cisco.com username and password; then, click **Log In**. The Bug Search page opens.

> **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.

3. To search for a specific bug, enter the bug ID in the Search For field and press **Return**.

4. To search for bugs in the current release:

   a. Click the **Search Bugs** tab and specify the following criteria:

   b. In the Search For field, enter Prime Network Registrar 8.3.4 and press **Return**. (Leave the other fields empty.)

   c. When the search results are displayed, use the filter tools to find the types of bugs you are looking for. You can search for bugs by status, severity, modified date, and so forth.

> **Note:** To export the results to a spreadsheet, click the **Export All to Spreadsheet** link.

Important Notes

This section contains the important information related to this software release and information in response to recent customer queries. It describes:

- RIC Server Support, page 6
- Updates to Server Log File Size and Number, page 6

RIC Server Support

Cisco Prime Network Registrar 8.3 will be the last release to support the Router Interface Configuration (RIC) features. Future versions will not include the RIC features (though the virtual router and router-interfaces support will be retained).

Updates to Server Log File Size and Number

In Cisco Prime Network Registrar 8.3.4 release, the default size of DHCP, DNS, TFTP, CCM, and CDNS server log files is increased to 10 MB instead of 1,000,000 bytes. This value applies to new installations only.

> **Note:** Upgrades from previous versions will use the old preconfigured (or explicitly configured) value of 1,000,000 bytes for log files.

The default number of logs has also increased to 10 from 4 for the above mentioned servers.

For the server startup logs, the size has changed to 10 MB from 1000 KB (just under 1 MB). This applies to new installations and upgrades.

Related Documentation

See Cisco Prime Network Registrar Documentation Overview for a list of Cisco Prime Network Registrar 8.3 guides.

Accessibility Features in Cisco Prime Network Registrar 8.3.4

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, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at
http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

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Obtaining Documentation and Submitting a Service Request