



Cisco Prime Network Registrar 8.3.2 Release Notes

August 21, 2015

These release notes provide an overview of the new and changed features in Cisco Prime Network Registrar 8.3.2, and describe how to access information about the known problems in Cisco Prime Network Registrar 8.3.2.

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

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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.

Before you Begin

Before you install Cisco Prime Network Registrar 8.3.2, 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 8.3.2 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 for 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 8.3.2 kit contains the following files and directories:

- Solaris—Solaris 10 installation kit.

Note: Cisco Prime Network Registrar 8.3 will be the last release to support Solaris.

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

Note: Cisco Prime Network Registrar 8.3.2 supports two Linux kits—32-bit applications and 64-bit applications.

- Windows—Windows Server 2008 R2 installation kit.
- Docs—Pointer card, Bugs, Enhancement List.

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.

Interoperability

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 the following PNR features with the exception of (identified as not necessary for Smart Grid Implementations):

- Tenants
- External Authentication
- Extensions
- Lightweight Directory Access Protocol (LDAP)
- TCP Listeners (client notification)
- Trivial File Transfer Protocol (TFTP)
- Router Interface Configuration (RIC)
- Regional lease history and subnet utilization
- Bring Your Own Device (BYOD)

Note: Before you install Cisco Prime Network Registrar 8.3.2, 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.

New Features and Enhancements

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.

Caution:

- 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

This section describes the features added in Cisco Prime Network Registrar 8.3.2.

- [64-bit Linux Kit, page 4](#)

64-bit Linux Kit

Cisco Prime Network Registrar 8.3.2 introduces 64-bit application support (the Cisco Prime Network Registrar servers are now native 64-bit applications). You can choose from the two Linux kits mentioned below:

- `cpnr_8_3_2-linux-x86_64.gtar.gz` (64-bit applications)
- `cpnr_8_3_2-linux-i686.gtar.gz` (32-bit applications, equivalent to the `cpnr_version-linux.gtar.gz` kits for earlier versions).

If you are installing or upgrading from an earlier version of Cisco Prime Network Registrar on a 64-bit operating system, you can choose either kit. The databases are compatible and switching between 32-bit and 64-bit applications is not an issue.

If you are installing or upgrading on a 32-bit operating system, you must use the 32-bit application kit. See [Table 1 on page 4](#) for more details.

Note: The 64-bit kit can only be used on 64-bit operating systems.

Table 1 Cisco Prime Network Registrar Kits

Operation System	Cisco Prime Network Registrar Kit	
	32-bit	64-bit
Linux 32-bit OS	Required	Not usable
Linux 64-bit OS	Usable	Usable and recommended

Note: The default resource limits values are different for 32-bit and 64-bit installs.

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

[Table 2 on page 5](#) lists the key issues resolved in the Cisco Prime Network Registrar 8.3.2 release.

Table 2 Resolved Bugs in Cisco Prime Network Registrar 8.3.2

Bug ID	Description
CSCuu82381	Evaluation of cnr-aic for OpenSSL June 2015

For the complete list of bugs for this release, see the `cpnr_8_3_2-buglist.pdf` file available at the product download site. See this list especially for information about fixes to customer-reported issues.

Enhancement Features

[Table 3 on page 5](#) lists the key enhancement features added in the Cisco Prime Network Registrar 8.3.2 release.

Table 3 Enhancement Features Added in Cisco Prime Network Registrar 8.3.2

Bug ID	Description
CSCuf21206	Support 64-bit Execution
CSCuv61761	nrcmd -R needs ability to change Scope Template embedded policy options

For the complete list of enhancement features added in this release, see the `cpnr_8_3_2-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:

Important Notes

- b. In the Search For field, enter Prime Network Registrar 8.3.2 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:

- [Troubleshooting DHCP Server Out of Memory Aborts on Linux, page 6](#)
- [Cisco Notification Service, page 6](#)

Troubleshooting DHCP Server Out of Memory Aborts on Linux

In Cisco Prime Network Registrar 8.3.2, an issue on Linux with the DHCP server potentially using large amount of memory and aborting itself with an out-of-memory condition that was found to be related to an interaction of the glibc MALLOC behavior and the DHCP server has been addressed (see [CSCus91865](#) or *Appendix E: Troubleshooting DHCP Server Out of Memory Aborts on Linux* of *Cisco Prime Network Registrar 8.3 Installation Guide*). In Cisco Prime Network Registrar 8.3.2, the cnrservagt will automatically set the MALLOC_PER_THREAD=1 and MALLOC_ARENA_MAX=1 environment variables to change the MALLOC behavior to prevent issues when starting the CPNR processes.

Note: If you have already taken the measures described in *Appendix E: Troubleshooting DHCP Server Out of Memory Aborts on Linux* of the *Cisco Prime Network Registrar 8.3 Installation Guide*, you can undo those changes as they are now done automatically in release 8.3.2.

Cisco Notification Service

Cisco Notification Service (<http://www.cisco.com/cisco/support/notifications.html>) allows you to create customized flexible notification alerts to be sent to you via email or by RSS feed, on critical product support subjects: Security Advisories, Field Notices, End of Sale/Support statements, Software Updates, and Known Bugs.

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 8.3.2

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>

Subscribe to the *What's New in Cisco Product Documentation* as an RSS feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service. Cisco currently supports RSS Version 2.0.

This document is to be used in conjunction with the documents listed in the [Related Documentation, page 6](#) section.

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