



Cisco Prime IP Express 8.3.3 Release Notes

December 21, 2015

These release notes provide an overview of the new and changed features in Cisco Prime IP Express 8.3.3, and describe how to access information about the known problems in Cisco Prime IP Express 8.3.3.

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

<http://www.cisco.com/c/en/us/support/cloud-systems-management/prime-ip-express/tsd-products-support-series-home.html>

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Introduction

Cisco Prime IP Express 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 IP Express.

Before you Begin

Before you install Cisco Prime IP Express 8.3.3, review the system requirements and licensing information available in the *Cisco Prime IP Express 8.3.3 Installation Guide*.

Note: If you are migrating to Cisco Prime IP Express 8.3.3 from an earlier version of Cisco Prime IP Express, you must review the release notes for the releases that occurred in between, to fully understand all the changes.

Cisco Prime IP Express DHCP, Authoritative DNS, and Caching DNS components are licensed and managed from the Cisco Prime IP Express 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 IP Express 8.2 and later.

Cisco Prime Network Registrar IPAM is licensed separately from Cisco Prime IP Express 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 IP Express suite.

For more details about Licensing, see the License Files section in the Overview chapter of the *Cisco Prime IP Express 8.3.3 Installation Guide*.

The Cisco Prime IP Express 8.3.3 kit contains the following files and directories:

- Linux—Red Hat Linux ES 5.x /6.x installation kit
- Windows—Windows Server 2008 R2 installation kit
- Docs—Pointer card, Bugs, Enhancement List

Market Segment Specific Licensing

Cisco Prime IP Express introduced separate licenses for the components (System, DHCP, DNS, and CDNS) in release 8.0. For information on the Cisco Prime IP Express component-based license set, see the License Files section of the *Cisco Prime IP Express 8.3.3 Installation Guide*.

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

Cisco Prime IP Express currently offers the following two sets of market segment based licenses:

- PNR
- PNR-ENT
- 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 Service Provider market segment, PNR-ENT offers features designed for the Enterprise 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.

Interoperability

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.

PNR-ENT Licenses

The Cisco Prime IP Express (PNR-ENT) license offers all the PNR features with the exception of (identified as not necessary for Enterprise market):

- Tenants
- TCP Listeners (DHCP Features - Dynamic Lease Notification, Bulk leasequery, Active leasequery/ Client Notification)
- Trivial File Transfer Protocol (TFTP)
- Router Interface Configuration (RIC)
- Regional subnet utilization history

Note: Before you install Cisco Prime IP Express 8.3.3, review the system requirements and licensing in the *Cisco Prime IP Express 8.3 Installation Guide*.

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 IP Express 8.3.3, review the system requirements and licensing in the *Cisco Prime IP Express 8.3 Installation Guide*.

Interoperability

Cisco Prime IP Express 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.

Cisco Prime IP Express Bugs

When you purchase the full set of Cisco Prime IP Express components, you receive a license package for IPAM, and a separate license for Cisco Prime IP Express 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 IP Express 8.3 protocol servers interoperate with versions Cisco Prime Network Registrar 7.2 or later and Cisco Prime IP Express 8.2 and later except as noted below.

- Cisco Prime IP Express 8.2 and later DHCPv4 failover servers do not interoperate with the versions prior to 8.2.
- The HA protocol version in Cisco Prime IP Express 8.2 and later will not communicate with versions earlier to Cisco Prime Network Registrar 8.0.

Caution:

- By the nature of the EDNS0 protocol, Cisco Prime IP Express 8.3 DNS servers interoperate with earlier versions of Cisco Prime IP Express DNS (and third party DNS vendors). EDNS0 defines the interoperability with DNS servers that do not support EDNS0. Cisco Prime IP Express 8.3 DNS adheres to the RFC and consequently interoperates with earlier versions of Cisco Prime IP Express.
- Cisco Prime IP Express 8.3 DDNSv6 interoperates with Cisco Network Registrar 7.0 or later and Cisco Prime IP Express 8.2 and later DNS servers because of the use of the DHCID RRs (in place of TXT RRs for DDNSv6).
- Cisco Prime IP Express 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 IP Express 8.3.

Cisco Prime IP Express Bugs

For more information on a specific bug or to search all bugs in a particular Cisco Prime IP Express release, see [Using the Bug Search Tool, page 6](#).

This section contains the following information:

- [Resolved Bugs, page 4](#)
- [Enhancement Features, page 5](#)
- [Using the Bug Search Tool, page 6](#)

Resolved Bugs

[Table 1 on page 4](#) lists the key issues resolved in the Cisco Prime IP Express 8.3.3 release.

Table 1 Resolved Bugs in Cisco Prime IP Express 8.3.3

Bug ID	Description
CSCul47444	DNS HA main may stop communicating with its partner under load
CSCun02848	DNS HA main refuses connection from HA partner and/or drops updates
CSCus11114	Permanent v4 leases have incorrect renewal and rebinding times
CSCuu03465	GNU glibc send_dg Function File Overwrite Vulnerability
CSCuu90199	GSS Zone transfer via TCP sends last packet unsigned

Table 1 Resolved Bugs in Cisco Prime IP Express 8.3.3 (continued)

Bug ID	Description
CSCuv22010	View zone copy fails to copy RRs for reverse zones
CSCuv40744	Web UI connection never times out
CSCuv53902	XMLSoft libxml2 Library XML File Parsing Denial of Service Vulnerability
CSCuv65177	Server grants wrong subnet if requested length > 31
CSCuv67398	CDNS server crashes when 32 nd CDNS64 object is created
CSCuv73299	CCM uses 100% CPU when loading Zone Dist page with views
CSCuw16396	DNS fails to upgrade RRs when AUTHZONE.db file size larger than 2 GB
CSCuw21671	CDNS crashes or hangs with RPZ enabled when using redirect
CSCuw24415	Follow RFC 3597 standard for unknown RR types and classes
CSCuw56611	Zone promote-to-primary does not work
CSCuw94667	DNS View acl-match-destinations is not working

For the complete list of bugs for this release, see the [cpipe_8_3_3-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 IP Express 8.3.3 release.

Table 2 Enhancement Features Added in Cisco Prime IP Express 8.3.3

Bug ID	Description
CSCur18686	Revisit lease time calculations for long and permanent v4 leases
CSCus98591	DHCP DDNS related logging correction and getrelatedservers update
CSCuu32263	Option to enable/disable BYOD feature to avoid https port 443 conflict
CSCuu72010	Support regional management of DNS64 objects
CSCuu74636	Implement DNS Updates for Prefix Delegation
CSCuv14168	Complete packet logging for CDNS
CSCuv39716	Deleting a VPN should optionally delete the associated objects
CSCuv41885	Import RPZ zones from BIND DNS
CSCuv51149	Add new Cablelabs DHCP Options
CSCuv67401	Enhance config log for RPZ domain
CSCuv69742	Parse and unparse REST DHCP option data

For the complete list of enhancement features added in this release, see the [cpipe_8_3_3-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 IP Express or Prime Network Registrar 8.3.3 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:

- [RFC 3597 Standard for Unknown RR Types and Classes, page 6](#)
- [Troubleshooting DHCP Server Out of Memory Aborts on Linux, page 6](#)

RFC 3597 Standard for Unknown RR Types and Classes

Earlier, Cisco Prime IP Express was not compliant with RFC 3597 naming of unknown RR types and classes. These issues have been corrected in Cisco Prime IP Express 8.3.3 release:

- The CLI `zone addRR` command implied it supported a class argument, which indicates, it supported the 'standard' DNS classes. However, it was only supporting the IN class. In Cisco Prime IP Express 8.3.3, the `addRR` command help has been modified to show that it supports only IN class.

```
zone <name> addRR [-sync] <name> [<ttl>] [IN] <type> <data>
```

- The CLI used a non-standard `RRTYPE-number` for unknown resource record types; this does not follow RFC 3597 which uses `TYPEnumber`. Starting with Cisco Prime IP Express 8.3.3, resource records can be created with type as `TYPEnumber` through CLI.

Troubleshooting DHCP Server Out of Memory Aborts on Linux

In Cisco Prime IP Express 8.3.3, 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](#)). In Cisco Prime IP Express 8.3.3, 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 CPIPE processes.

Related Documentation

See [Cisco Prime IP Express Documentation Overview](#) for a list of Cisco Prime IP Express 8.3 guides.

Accessibility Features in Cisco Prime IP Express 8.3.3

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 7](#) section.

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