Cisco Prime Network Registrar 9.0 Release Notes

December 26, 2016

These release notes provide an overview of the new and changed features in Cisco Prime Network Registrar 9.0, and describe how to access information about the known problems in Cisco Prime Network Registrar 9.0.

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.

Before you Begin

Before you install Cisco Prime Network Registrar 9.0, review the system requirements and licensing information available in the *Cisco Prime Network Registrar 9.0 Installation Guide.*

Note: If you are migrating to Cisco Prime Network Registrar 9.0 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 Prime Network Registrar 8.x or earlier are not valid for Cisco Prime Network Registrar 9.0. You should have a new license for Cisco Prime Network Registrar 9.0.

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 9.0 Installation Guide*.

The Cisco Prime Network Registrar 9.0 kit contains the following files and directories:

- Linux—Red Hat Linux ES 6.5 installation kit.
- Windows—Windows Server 2012 R2 installation kit.
- Docs—Pointer card, Bugs, and 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 7.2 operating system. The Cisco Prime Network Registrar virtual appliance is supported on VMware ESXi 5.5 or later platforms, CentOS/RHEL 7.2 KVM Hypervisor, and an OpenStack installation running on CentOS/RHEL 7.2. For more details, see the Cisco Prime Network Registrar Virtual Appliance section of the *Cisco Prime Network Registrar 9.0 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 9.0 Installation Guide*.

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.

Cisco Prime Network Registrar 9.0 requires 9.0 licenses for DHCP and DNS authoritative services. These licenses are applied system-wide and support both 9.0 local clusters and existing 8.x local clusters. Cisco Prime Network Registrar 9.0 supports earlier versions of the DNS caching license for existing 8.x local clusters. 9.0 local clusters require 9.0 licenses. If you are using the Cisco Prime Network Registrar 8.x platform, you can purchase upgrade licenses. Versions released prior to Cisco Prime Network Registrar 8.x are not eligible for upgrade licensing and are directed to the Cisco Prime Network Registrar 9.0 full license.

PNR Licenses

The PNR license provides all the features available for the Cisco Prime Network Registrar release you install.

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)
- Regional lease history
- Regional subnet utilization history
- Bring Your Own Device (BYOD)

Note: Before you install Cisco Prime Network Registrar 9.0, review the system requirements and licensing in the *Cisco Prime Network Registrar 9.0 Installation Guide*.

Interoperability

Cisco Prime Network Registrar 9.0 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 9.0 and pre-9.0 local clusters must be done from a 9.0 regional cluster. Cisco Prime Network Registrar 9.0 protocol servers interoperate with versions 8.1 or later except as noted below.

- Cisco Prime Network Registrar 9.0 protocol servers, except DHCP failover, interoperate with 8.1 or later. DHCP failover interoperates with 8.2 and later.

  Note: If you are upgrading to 9.0 from 8.1 or earlier, note that the DHCP failover now uses TCP instead of UDP and this requires updating firewalls to allow TCP traffic on failover port (547) instead of UDP. Also, as of 8.2, failover now supports DHCPv6 in addition to DHCPv4 and only simple failover (back office and symmetrical configurations are no longer supported). For more details on the failover changes made in 8.2, see the DHCP Failover (DHCPv4 and DHCPv6) section of the *Cisco Prime Network Registrar 8.2 Release Notes*.

Caution:

- By the nature of the EDNS0 protocol, Cisco Prime Network Registrar 9.0 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 9.0 DNS adheres to the RFC and consequently interoperates with earlier versions of Cisco Prime Network Registrar.
- Following table shows the compatibility matrix for IPControl/IPAM with CPNR DHCP/DNS as of the time of Cisco Prime Network Registrar 9.0 release. For the latest information, see the release notes of the latest IPAM release.

Table 1 Compatibility Matrix

IPControl	IPAM	CPNR
4.x	8.1.1	8.0 and 8.1
6.x	8.1.2	8.0 and 8.1
7.x	8.1.3	8.2 and earlier versions
8.x	8.3	8.3 and earlier versions
9.x	9.0	9.0 and earlier versions

New Features and Enhancements

This section describes the features added in Cisco Prime Network Registrar 9.0:

- Removal of Solaris/Sun Support, page 7

End to End IPv6 Support

Prior to 9.0 release, Cisco Prime Network Registrar used IPv4 network for inter-cluster (local-local and local-regional) communication and external authentication with RADIUS server. Cisco Prime Network Registrar 9.0 supports deployment over IPv6, as IPv4 is in the final stages of exhausting its unallocated address space.

The following sections describe the changes made in CCM and DNS servers to support communication over IPv6.

DNS IPv6 Support

To support end to end IPv6 support in DNS, following changes are made in Cisco Prime Network Registrar 9.0:

- For secondary zones, master-servers list is expanded to include IPv6 interfaces/addresses.
- Notify and Transfer requests are sourced from IPv6 interfaces/addresses.
- IPv6 addresses are included in Notify set.
- HA DNS communication is allowed over IPv6 interfaces/addresses.

CCM IPv6 Support

To support end to end IPv6 support in CCM server, in Cisco Prime Network Registrar 9.0:

- You can provide an IPv4 or IPv6 address of regional during installation of local cluster for initial license registration.
- You can provide an IPv4 or IPv6 address of regional after installation of local cluster using “Add Initial License” page in WebUI or **license register** command in CLI, for initial license registration.
- For redundancy, you can provide both IPv4 and IPv6 addresses of regional after installation of local cluster using “List Licenses” page in WebUI or **license register** command in CLI, for license registration.
- You can register local cluster by creating cluster object (using IPv4 and/or IPv6 address) and by performing sync operation from regional cluster.
- You can perform all operations between local and regional (i.e., replicate, push, and pull data) over IPv6 network.
- You can create DHCP Failover and DNS HA pairs using cluster objects. IPv4 and/or IPv6 addresses of cluster are used from cluster objects itself for failover communication.
- Cisco Prime Network Registrar cluster can communicate with RADIUS and Active Directory (LDAP) servers over IPv6 network for user authentication.
- You can configure IPv6 addresses and links for router and router-interface objects.
- You can configure VPNs for router-interfaces (v4 and v6).

DHCP Failover

In 8.x, failover used TCP over IPv6 if the failover-pair was configured with IPv6 addresses for BOTH partners. In Cisco Prime Network Registrar 9.0, failover tries to connect using both IPv4 and IPv6 (if both are configured) and uses whichever succeeds first and closes down the other. You can also configure addresses explicitly as 0::0 or 0.0.0.0 to prevent use of a transport (and prevent inheriting the cluster's addresses for use with failover).

Windows Server 2012 R2 Support

In Cisco Prime Network Registrar 9.0 release, CPNR can be installed on Windows Sever 2012 R2 and run as a native 64-bit application, which helps in using new technology and in making larger scale configurations.

Note: Windows Server 2008 is no longer supported in Cisco Prime Network Registrar 9.0.

DNS Push Notifications

Cisco Prime Network Registrar 9.0 supports DNS Push Notifications feature, a mechanism where a client is asynchronously notified when changes to DNS records occur. This feature allows the Authoritative DNS server to accept TCP connections from DNS Push Notification clients and accept subscription requests for specific DNS record names and optionally record types. Once the subscription is accepted, the client will receive update notifications whenever the subscribed to record is changed. Also, if the record exists at the time of subscription, the client will receive an initial update notification of the existing record.

For more information, see the “DNS Push Notifications” chapter in the *Cisco Prime Network Registrar 9.0 Caching and Authoritative DNS User Guide*.

Weighted Round Robin for Resource Records

Cisco Prime Network Registrar 9.0 supports weighted round-robin algorithm, which is used to determine which resource record (RR) is returned in a query response when a nameset is configured with multiple RRs of the same type. To control the response behavior, administrators can set weighted values on these RRs. In addition, the order in which multiple records are returned may be used by client applications and need to be controlled by administrators.

Multiple DHCPv6 Option Instances

Cisco Prime Network Registrar 9.0 supports configuring multiple instances of a DHCPv6 option (such as the MAP container options) on a policy, which helps to provide multiple options to clients. You can add/edit/delete multiple instances of a single DHCPv6 option on a policy via the web UI, CLI, SDK, and REST API. The server sends the multiple instances of the option to the client when configured and the client requests the option in the Options Request Option (ORO).

Dashboard in Regional Web UI

Starting from Cisco Prime Network Registrar 9.0, the Dashboard feature is available on the regional cluster also. It provides System Metrics chart by default. It allows you to display the server specific (DHCP, DNS, and CDNS) charts for various local clusters. This can be configured in the Chart Selections page.

Web UI Enhancements

Cisco Prime Network Registrar 9.0 supports a new web UI with improved usability that supports:

- New global navigation menu
- Google Chrome browser
- Favorites icon to save the frequently used pages/menus as favorites
- Pin/Unpin icon to pin/unpin the menus and to persist the size of the left pane
- Ability to configure home page of the application
- Ability to set the page size of log pages
- Advanced Filter options to filter the objects as required

- Tree grid in left pane for displaying list of objects

The web UI enhancements in Cisco Prime Network Registrar 9.0 provide improved look and feel which uses XWT 3.x and Tomcat 8.x.

Removal of RIC Server Support

Cisco Prime Network Registrar 9.0 no longer supports the Router Interface Configuration (RIC) features. However, the virtual router and router-interfaces support are retained.

The *cable-dhcp-giaddr* attribute and its policy mode have been deprecated in Cisco Prime Network Registrar 9.0 release. Router interfaces using the policy mode are upgraded to split the interface into two (the original with just the primary-subnet and a new with "-policy" appended to the name with the secondary-subnets of the original).

Router Subnets consistency report is removed from any list of reports either in the Web UI or when using cnr_rules. "Router Interfaces" and "Router Subnets" consistency reports are consolidated into a single set of expanded consistency check under the "Router Interfaces", as they reported on similar issues.

Removal of Solaris/Sun Support

Cisco Prime Network Registrar 9.0 does not support Solaris/Sun. Cisco Prime Network Registrar 8.3 is the last release to support Solaris. 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.

Command Line Interface Enhancements

The following commands are deprecated or attributes modified in the CLI. For more information, see the *Cisco Prime Network Registrar 9.0 CLI Reference Guide*.

Deprecated Commands

The following command is deprecated in the CLI:

- remote-dns command—Specifies information about remote DNS servers for IXFR

Modified Commands

New attributes are added to, or definitions modified for, the following commands:

- auth-server command—Configures a External authentication server
  - Added **ip6address** attribute to the create command to allow specifying the IPv6 address for the remote authentication server.
- client-class-policy command—Adds DHCP policy information to a client-class
  - Added the following new command to allow adding an additional instance of a DHCPv6 multi-instance option.

    client-class-policy <name> **addV6Option** <opt-name | id>[.<instance>] <value> [**-blob**]
  - Added **-blob** to setOption, setV6Option, setVendorOption, and setV6VendorOption commands to allow specifying option data in blob format.
  - Updated setV6Option, getV6Option, and unsetV6Option commands to support DHCPv6 multi-instance options.
- client-policy command—Adds DHCP policy information to a client object

  - Added the following new command to allow adding an additional instance of a DHCPv6 multi-instance option.

    client-policy <name> **addV6Option** <opt-name | id>[.<instance>] <value> [**-blob**]

  - Added **-blob** to setOption, setV6Option, setVendorOption, and setV6VendorOption commands to allow specifying option data in blob format.

  - Updated setV6Option, getV6Option, and unsetV6Option commands to support DHCPv6 multi-instance options.

- cluster command—Configures the local and remote clusters

  - Added **ip6address** attribute to the create command.

- dhcp-address-block-policy command—Edits a DHCP policy embedded in an address-block

  - Added **-blob** to setOption and setVendorOtion commands to allow specifying option data in blob format.

- dns command—Configures and controls the DNS server

  - Updated getStats command to include **dns-pn** statistics.

  - Updated activity-counter-log-settings attribute to include logging for **push-notifications**.

  - Added the following attributes:
    allow-any-query-acl, edns-max-payload, mem-cache-size, notify, notify-source-ip6address, packet-log-settings, packet-logging, pn-acl, pn-conn-ttl, pn-max-conns, pn-max-conns-per-client, pn-port, pn-tls, push-notifications, restrict-query-acl, restrict-xfer, restrict-xfer-acl, server-log-settings, transfer-source-ip6address, update-acl, and xfer-rr-meta-data

  - Deprecated the following attributes:
    hybrid-localhost-only, log-settings, and max-udp-payload-size

- lease command—Manage DHCP lease objects

  - Updated list and listbrief commands to support:

    -macaddr=<value>

    -cm-macaddr=<value>

    -reservation-lookup-key=<value> [**-mac**|**-string**|**-blob**] (Added to search v4/v6 reservations by lookup key)

- lease6 command—Manage DHCP lease6 objects

  - Updated list and listbrief commands with **-reservation-lookup-key**=<value> [**-mac**|**-string**|**-blob**] to search v4/v6 reservations by lookup key.

- license command—Views and updates license information

  - Updated **license register** command to register local cluster with regional cluster using IPv4 or IPv6 address.

  - Added the following new command to specify both IPv4 and IPv6 address of regional cluster.

    license register cdns | dns | dhcp [,...] <regional-ip> <regional-ipv6> [<regional-port>]

- link-policy command—Edits a DHCP policy embedded in a link

  - Added the following new command to allow adding an additional instance of a DHCPv6 multi-instance option.

    prefix-policy <name> **addV6Option** <opt-name | id>[.<instance>] <value> [**-blob**]

  - Added **-blob** to setV6Option and setV6VendorOption commands to allow specifying option data in blob format.

  - Updated setV6Option, getV6Option, and unsetV6Option commands to support DHCPv6 multi-instance options.

- link-template-policy command—Edits a DHCP policy embedded in a link-template
  - Added the following new command to allow adding an additional instance of a DHCPv6 multi-instance option.

    link-template-policy <name> **addV6Option** <opt-name | id>[.<instance>] <value> [**-blob**]
  - Updated setV6Option, getV6Option, and unsetV6Option commands to support DHCPv6 multi-instance options.
- prefix-policy command—Edits a DHCP policy embedded in a prefix
  - Added the following new command to allow adding an additional instance of a DHCPv6 multi-instance option.

    prefix-policy <name> **addV6Option** <opt-name | id>[.<instance>] <value> [**-blob**]
  - Added **-blob** to setV6Option and setV6VendorOption commands to allow specifying option data in blob format.
  - Updated setV6Option, getV6Option, and unsetV6Option commands to support DHCPv6 multi-instance options.
- prefix-template-policy command—Edits a DHCP policy embedded in a prefix-template
  - Added the following new command to allow adding an additional instance of a DHCPv6 multi-instance option.

    prefix-template-policy <name> **addV6Option** <opt-name | id>[.<instance>] <value> [**-blob**]
  - Added **-blob** to setV6Option and setV6VendorOption commands to allow specifying option data in blob format.
  - Updated setV6Option, getV6Option, and unsetV6Option commands to support DHCPv6 multi-instance options.
- policy command—Specifies DHCP policy information
  - Added the following new command to allow adding an additional instance of a DHCPv6 multi-instance option.

    policy <name> **addV6Option** <opt-name | id>[.<instance>] <value> [**-blob**]
  - Added **-blob** to setOption, setV6Option, setVendorOption, and setV6VendorOption commands to allow specifying option data in blob format.
  - Updated setV6Option, getV6Option, and unsetV6Option commands to support DHCPv6 multi-instance options.
- reservation command—Configures DHCPv4 reservations
  - Added the following new command to search v4/v6 reservations by lookup key.

    reservation listbrief [**-macaddr**=<mac-addr>]

    [**-lookup-key**=<lookup-key> [**-mac|-blob|-string**]]

    [**-vpn**=<vpn-name>] [**-count-only**]
- reservation6 command—Configures DHCPv6 reservations
  - Added the following new command to search v4/v6 reservations by lookup key.

    reservation6 listbrief [**-lookup-key**=<lookup-key> [**-mac|-blob|-string**]]

    [**-vpn**=<vpn-name>] [**-count-only**]
- router command—Configures a router
  - Added the following new command:

    router <name> **listInterfaces**

- scope-policy command—Adds DHCP policy information to a scope
  - Added **-blob** to setOption and setVendorOption commands to allow specifying option data in blob format
- scope-template-policy command—Edits a DHCP policy embedded in a scope-template
  - Added **-blob** to setOption and setVendorOption commands to allow specifying option data in blob format
- vpn command—Defines a logical VPN within which other DHCP objects may be configured
  - Added **-force** to the delete command.
- zone command—Configures a DNS zone
  - Added **-primary** and **-secondary** options to list, listnames, and listbrief commands.
  - Updated the addRR command as follows:

    zone <name> **addRR** [**-sync**] [**-unprotected**] <name> [<ttl>] [**IN**] <type> <data> [<attribute>=<value> ...]
  - Added **modifyRR** command to set the specified attributes for the matching resource record.
  - Added **push-notifications** attribute which enables or disables DNS Push Notifications for the zone.
- zone-dist command—Configures zone distributions
  - Added **push-notifications** attribute which specifies how the 'push-notifications' property should be set on the secondary zones.
- zone-template command—Configures a zone template
  - Added **push-notifications** attribute which enables or disables DNS Push Notifications for this zone.

SDK Compatibility Considerations

The SDK client includes a static version of the data dictionaries which may not match the target server version. This can create compatibility issues for clients that manage multiple server versions. In Cisco Prime Network Registrar 9.0, two new conversion methods, convertObject and convertObjectList are added to the Session class to manage objects for different server versions. The convertObject method converts an object from one product compatibility version to another. The convertObjectList method converts a list of objects from one product compatibility version to another. The Session getServerCompatibilityVersion method can be used to obtain the server product compatibility version. The value 0 may also be used to indicate the current server product compatibility version.

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 12.

This section contains the following information:

Resolved Bugs

Table 2 on page 11 lists the key issues resolved in the Cisco Prime Network Registrar 9.0 release.

Table 2 Resolved Bugs in Cisco Prime Network Registrar 9.0

Bug ID	Description
CSCul47444	DNS HA main may stop communicating with its partner under load
CSCuq06650	Regional replica update fails to get changes
CSCus11114	Permanent v4 leases have incorrect renewal and rebinding times
CSCus91865	DHCP server runs out of memory
CSCut62270	force-dns-update attribute has no effect when enabled
CSCut75188	Authoritative DNS upgrades of large DBs are very slow
CSCut93837	DHCPv6 option 75 krb-principal-name incorrectly defined
CSCut96009	Zone host sync is limited to 1000 rrsets
CSCuu72087	TXT records of forward zones in ha pair are not deleted on lease expiration
CSCuv07501	CDNS may return wrong data when DNS64 is enabled
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
CSCuz70511	Web UI missing CNRSNMP debug settings
CSCvb88357	Cleanup web UI “Synchronize Failover Pair” table

For the complete list of bugs for this release, see the cpnr_ipx_9_0-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 11 lists the key enhancement features added in the Cisco Prime Network Registrar 9.0 release.

Table 3 Enhancement Features Added in Cisco Prime Network Registrar 9.0

Bug ID	Description
CSCti93847	Shadow backups should be put in <datadir>.bak directory
CSCtn97323	CLI should prompt to create initial admin
CSCuu72039	Update DHCPv6 processing to support RFC 7550 (Stateful Issues)
CSCuu78928	tactool should allow exporting without RRs
CSCuw27316	Allow prefix template prefix-name expression to use the link’s name
CSCux73191	Support configuring multiple option instances for DHCPv6
CSCuy39530	Add support for lease state database compression
CSCvb26291	Deprecate router-interface's cable-dhcp-giaddr attribute
CSCvb86405	Increase default size of ADNS mem-cache-size variable

For the complete list of enhancement features added in this release, see the cpnr_ipx_9_0-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 9.0 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.

Related Documentation

See Cisco Prime Network Registrar Documentation Overview for a list of Cisco Prime Network Registrar 9.0 guides.

Accessibility Features in Cisco Prime Network Registrar 9.0

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 12 section.