



Release Notes for Cisco Unified CallManager 5.0(2) Plug-in, Release 1.0 (for Cisco Voice Provisioning Tool)

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These release notes describe system requirements, installation and upgrade notes, caveats, documentation notes, and technical assistance information for Release 1.0 of the Cisco Unified CallManager 5.0(2) Plug-in for the Cisco Voice Provisioning Tool.

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Introduction

The Cisco Voice Provisioning Tool (VPT), a web-based application, provides you a single interface from which to perform frequent move, add, and change operations on multiple servers within a Cisco IP Telephony deployment. The Cisco Unified CallManager 5.0(2) plug-in for VPT allows you to use VPT to perform user provisioning tasks on Cisco Unified CallManager 5.0(2) systems.

System Requirements

The following subsections describe the hardware and software requirements for the Cisco Unified CallManager 5.0(2) plug-in.

Hardware Supported

The plug-in is installed on the VPT server. For a list of hardware supported on the VPT server, see the *Cisco Voice Provisioning Tool Release Notes* at http://www.cisco.com/en/US/products/ps6524/prod_release_notes_list.html.

Software Compatibility

Release 1.0 of the Cisco Unified CallManager 5.0(2) plug-in can be installed on a server running Cisco Voice Provisioning Tool Release 1.0(2). It can be installed concurrently with any Cisco Unity or Cisco Unity Connection plug-in. See the “[Installation Notes](#)” section on page 3 for instructions for installing this release.

Release 1.0 of the Cisco Unified CallManager 5.0(2) plug-in supports only Cisco Unified CallManager 5.0(2). You cannot use the plug-in to administer any other version of Cisco Unified CallManager.

For each Cisco Unified CallManager cluster, you configure a product system in VPT to represent the publisher server; if only one Cisco Unified CallManager server acts as publisher and subscriber, you configure that server as the product system.

The following requirements must be met on the Cisco Unified CallManager server that will be used as a product system to interoperate with VPT by using this plug-in release:

- The Cisco Unified CallManager server must be running Cisco Unified CallManager version 5.0(2).
- The Cisco AVVIDXML (AXL) web service must be available on the Cisco Unified CallManager server, and reachable from the VPT server. The AXL web service is enabled by default on Cisco Unified CallManager servers and does not have to be installed or configured.

Determining the Software Version

To determine the version of Cisco Voice Provisioning Tool software in use, browse to the VPT login window and click **About** in the upper right corner of the window. You can also access the About link from any window after you have logged in to the tool.

To determine the version of product plug-ins installed on a VPT server, open the VPT graphical user interface (GUI) as described in the *Cisco Voice Provisioning Tool System Management and Security Guide*, and choose **VPT Administration > Plug-Ins > Manage Plug-Ins**.

Installation Notes

Use the following task list to install the Cisco Unified CallManager 5.0(2) plug-in Release 1.0.

1. Install or upgrade the Cisco Unified CallManager server(s) to 5.0(2), if applicable. See the *Installing Cisco Unified CallManager Release 5.0(2)* or *Upgrading Cisco Unified CallManager Release 5.0(2)* guides, at http://www.cisco.com/en/US/products/sw/voicesw/ps556/prod_installation_guides_list.html.
2. Install the Cisco Unified CallManager 5.0(2) plug-in. See the “To Install a Cisco Unified CallManager Plug-in” procedure on page 3.
3. Add a product system for each Cisco Unified CallManager publisher server, if applicable. See the *Cisco Voice Provisioning Tool System Management and Security Guide* for instructions on adding a product system, at http://www.cisco.com/en/US/products/ps6524/prod_maintenance_guides_list.html.
4. Configure SSL. See the “SSL Configuration” section on page 9.



Caution If you do not configure SSL, the Cisco Unified CallManager 5.0(2) plug-in will not function properly.

To Install a Cisco Unified CallManager Plug-in

To install plug-ins, your administrator account must belong to a role that has Plugin Management Install and View permissions for the VPT application.

Step 1 Open a browser and go to <http://www.cisco.com/cgi-bin/tablebuild.pl/VPT>.

The Cisco Voice Provisioning Tool software page opens.



Tip When you download the plug-in, the browser gives you the option of saving the file to disk or opening the file. Save the file to disk before you install the plug-in.

Step 2 To download the Cisco Unified CallManager plug-in, click the Cisco Unified CallManager plug-in zip file, which uses the following format: ccm_<Cisco Unified CallManager supported version>_<plug-in version>.zip.

For example, click ccm_5_0_2_v1_0.zip.

Step 3 To install the plug-in after you download it, open the VPT graphical user interface (GUI), as described in the *Cisco Voice Provisioning Tool System Management and Security Guide*.

Step 4 After you log in to the GUI, choose **VPT Administration > Plug-Ins > Install New Plug-In**.

Step 5 On the Install New Plugin page, enter the name of the download, or browse to the file by clicking **Browse**.

Step 6 Click **Install**.



Note The Voice Provisioning Tool restarts after you confirm that you want to install a plug-in.

Caveats

This section contains information on the following topics:

- [Using Bug Toolkit, page 4](#)
- [Saving Bug Toolkit Queries, page 5](#)
- [Open Caveats—Release 1.0, page 6](#)

This section contains caveat information for the Cisco Unified CallManager 5.0(2) plug-in Release 1.0 for the Cisco Voice Provisioning Tool only. See the release notes of the applicable version for caveat information for the Cisco Voice Provisioning Tool or Cisco Unified CallManager.

- Release notes for the Cisco Voice Provisioning Tool are available at http://www.cisco.com/en/US/products/ps6524/prod_release_notes_list.html.
- Release notes for all versions of Cisco Unified CallManager are available at http://www.cisco.com/en/US/products/sw/voicew/ps556/prod_release_notes_list.html.

Using Bug Toolkit

To access Bug Toolkit, you need the following items:

- Internet connection
- Web browser
- Cisco.com user ID and password



Tip

For detailed online Help with Bug Toolkit, click Help on any Bug Toolkit page.

To Use Bug Toolkit

-
- Step 1** To access the Bug Toolkit, go to http://www.cisco.com/cgi-bin/Support/Bugtool/launch_bugtool.pl.
- Step 2** Log on with your Cisco.com user ID and password.
- Step 3** Click the **Launch Bug Toolkit** hyperlink.
- Step 4** To find information about a specific caveat, enter the ID number in the Enter Known Bug ID field.
- Step 5** To view all caveats for the Cisco Voice Provisioning Tool, go to the Search for Bugs in other Cisco Software and Hardware Products section, and enter **Cisco Voice Provisioning Tool** in the Product Name field. Alternatively, you can scroll through the product name list and click **Cisco Voice Provisioning Tool**.
- Step 6** Click **Next**. The search window displays.
- Step 7** Choose the filters to query for caveats. You can choose any or all of the available options:
- Choose the Cisco Voice Provisioning Tool version.
 - Choose the major version for the major releases (such as 1.0 and so on).
A major release contains significant new features, enhancements, architectural changes, and/or defect fixes.
 - Choose the revision for more specific information; for example, choosing major version 1.0 and revision version 2 queries for release 1.0(2) caveats.

A revision (maintenance) release primarily contains defect fixes to address specific problems, but it may also include new features and/or enhancements.

- Choose the Features or Components to query; choose an option from the Available list and click **Add** to place your selection in the Limit Search To list.
 - To query for all Cisco Voice Provisioning Tool caveats for a specified release, choose **All Features** in the left pane.
 - To query only for phone provisioning defects, choose **Phone-Prov** and click **Add**.
 - To query only for user provisioning defects, choose **User-Prov** and click **Add**.
 - To query only for installation defects, choose **Install** and click **Add**.
 - To query only for bulk administration defects, choose **Bulk** and click **Add**.
 - To query only for security defects, choose **Security** and click **Add**.
- Enter keywords to search for a caveat title and description.



Note To make queries less specific, use the All wildcard for the major version/revision, features/components, and keyword options.

- Choose the Set Advanced Options, including the following items:
 - Bug Severity level—The default specifies 1-3.
 - Bug Status Group—To view resolved caveats, check the **Fixed** check box.
 - Release Note Enclosure—The default specifies Valid Release Note Enclosure.

Step 8 Click **Next**.

The Bug Toolkit returns a list of caveats based on your query. You can modify your results by submitting another query and choosing different criteria. You can also save your query for future use, as described in the [“Saving Bug Toolkit Queries” section on page 5](#).

Saving Bug Toolkit Queries

Bug Toolkit allows you to create and then save your queries to monitor a specific defect or network situation. You can edit a saved search at any time to change the alert conditions, the defects being watched, or the network profile.

To save your Bug Toolkit queries, do the following procedure.

To Save Bug Toolkit Queries

- Step 1** Search for caveats, as described in the [“To Use Bug Toolkit” procedure on page 4](#).
- Step 2** In the search result window, click the **This Search Criteria** button.
- Step 3** After the page displays, enter a name for the saved search in the Name of Saved Search field.
- Step 4** Under My Bug Groups, click one of the following radio buttons to save your defects in a bug group:
 - Click the **Existing Group** radio button and choose an existing group name from the drop-down list box.

- Click the **Create New Group Named** radio button and enter a group name to create a new group for this saved search.

This bug group contains the bugs that are identified by using the search criteria that you saved. Each time that a new bug meets the search criteria, the system adds it to the group that you chose.

Bug Toolkit makes your queries available through the My Stuff window, which allows you to view, create, and/or modify existing bug groups or saved searches. Choose the **My Stuff** link to see a list of your bug groups.

Step 5 Under Email Update Options, you can set e-mail notification preferences if you want to receive automatic updates of a bug status change. Bug Toolkit provides the following options:

- Do Not Send Me Any Email Updates**—If you choose this setting, Bug Toolkit does not send e-mail notifications.
- Send My Updates To**—Click this radio button if you want e-mail notifications to go to the user ID that you enter in this field. You can specify the following notification options:
 - Updates As They Occur**—Bug Toolkit provides updates that are based on status change.
 - Weekly Summaries**—Bug Toolkit provides weekly summary updates.
- Apply These Email Update Options to All of My Saved Searches**—Check this check box to use these e-mail update options for all of your saved searches.

Step 6 To save your changes, click **Save**.

A window displays the bug group(s) that you have saved. From this window, you can click a bug group name to see the bugs and the saved searches; you can also edit the search criteria.

Open Caveats—Release 1.0

[Table 1](#) describes possible unexpected behaviors in Release 1.0 of the Cisco Unified CallManager 5.0(2) plug-in for VPT, sorted by component, then by caveat number.



Note

For more information about an individual defect, click the associated Caveat Number to access the online record for that defect, including workarounds.

Because defect status continually changes, be aware that the list in [Table 1](#) reflects a snapshot of the defects that were open at the time this report was compiled. For an updated view of open defects, access Bug Toolkit and follow the instructions as described in the [“To Use Bug Toolkit” procedure on page 4](#).

Table 1 Open Caveats for Cisco Unified CallManager 5.0(2) Plug-in, Release 1.0

Caveat Number	Severity	Component	Description
CSCse24500	3	bulk	Missing validation of CAPF (Certificate Authority Proxy Function)
CSCse72816	3	bulk	Bulk: Update Phone> CCM with double quote is not accepted
CSCse72861	3	bulk	Bulk update Phone: poor error message when duplicate phone name exists
CSCse79431	3	bulk	Bulk > AllLines: No error message when adding more lines than phone button tmlt
CSCse79438	3	bulk	Bulk:Add Line> Second Line is not added when vpt_clear applied to first

Table 1 Open Caveats for Cisco Unified CallManager 5.0(2) Plug-in, Release 1.0 (continued)

Caveat Number	Severity	Component	Description
CSCse82221	3	bulk	Bulk: Unable to clear the User Locale field while updating the user
CSCsf02004	3	bulk	BulkExport:AddPhone/Profiles page > Select All box does not function properly
CSCsd99457	3	phone-prov	Fields except for control fields should not have (*) on template page
CSCse03110	3	phone-prov	MTP Codec should be disabled if Media Termination point is unchecked
CSCse11869	3	phone-prov	Meaningless Error Message when trying to add phone with duplicate MAC
CSCse22840	3	phone-prov	Log Out Profile field should not be modifiable
CSCse27728	3	phone-prov	Phone fields like Line Text Label do not take single quote correctly.
CSCse29902	3	phone-prov	Add Line>Max Number of Calls does not accept total of 200 calls
CSCse30606	3	phone-prov	Add Lines:Zero in Busy Trigger field give user meaningless error message
CSCse30623	3	phone-prov	Modify Lines: Field Max Number of Calls failed validation cases
CSCse34057	3	phone-prov	Add Lines: with 36 configured lines times out vpt
CSCse35539	3	phone-prov	Multi-Mod: Device Description not updated on Selected Device page
CSCse36506	3	phone-prov	Multi-Mod:Data is not saved when one of the phones being deleted from CCM
CSCse39851	3	phone-prov	Maximum Number of Calls does not accept modified value
CSCse42604	3	phone-prov	Deleting DN for Share Line from Add Phone leaves all fields enabled
CSCse42624	3	phone-prov	Field Maximum Number Of Calls retain value after attempted deletion
CSCse48401	3	phone-prov	>36 Line Phone cannot be open for modification.
CSCse62815	3	phone-prov	Bulk: Field Digest User missing in SIP phone from Select Attribute Type page
CSCse66688	3	phone-prov	Bulk: Header ccm_device_deviceProtocol is missing from export file
CSCse67773	3	phone-prov	Error message not in detail when saving a phone with a deleted IP service
CSCse68835	3	phone-prov	Bulk>Update Phone: Operation Completes by accepts past date
CSCse83320	3	phone-prov	Multi Mod:Device Profile> Field Privacy does not save value in IP Comm
CSCsd94399	3	user-prov	Cannot unassociate all phones/profiles in one step
CSCse05238	3	user-prov	User is added to CCM with Invalid Associated PC
CSCse14935	3	user-prov	Unable to add a user to CCM with single-quote char in USERID, FN and LN
CSCse22068	3	user-prov	CCM User: Mail ID field is allowing more than 255 characters
CSCse98903	3	user-prov	Unable to multi-mod CCM 5.0 user groups after a 4.1.3 phone search

Documentation Updates

This section lists new and additional information that is not included in the current Cisco Voice Provisioning Tool documentation. The new and additional information will be incorporated in a future documentation release.

This section covers the following document updates and omissions:

- [Installing, Upgrading, and Removing Plug-ins](#), page 8
- [Improving Performance When Accessing Cisco CallManager Data](#), page 8
- [Device Profile Configuration Settings](#), page 8
- [Phone Configuration Settings](#), page 9
- [SSL Configuration](#), page 9
- [Supported Cisco IP Phone Models](#), page 12
- [Supported Cisco Device Profile Types](#), page 13
- [User Configuration Settings](#), page 13
- [Bulk Provisioning](#), page 14

Installing, Upgrading, and Removing Plug-ins

The *Cisco Voice Provisioning Tool Installation and Upgrade Guide* does not include information on upgrading, installing or removing plug-ins. For instructions on installing Cisco Unified CallManager plug-ins, see the “[Installation Notes](#)” section on page 3. For instructions on removing plug-ins, see the *Cisco Voice Provisioning Tool Release Notes, Release 1.0(2)*.

Improving Performance When Accessing Cisco CallManager Data

If using VPT to update Cisco Unified CallManager 5.0(2) data is slow, do the following procedure to add the IP address and the host name of the Cisco Unified CallManager servers to the hosts file on the VPT server.

To Update the Hosts File on the VPT Server

-
- Step 1** Open the file C:\WINNT\system32\drivers\etc\hosts.
- Step 2** Add the IP address and the host name for each Cisco Unified CallManager 5.0(2) server you are accessing, for example:
- ```
192.168.1.1 ccm01.cisco.com
```
- 

## Device Profile Configuration Settings

The VPT plug-in for Cisco Unified CallManager 5.0(2) supports all device profile configuration settings related to the supported devices.

## Phone Configuration Settings

The VPT plug-in for Cisco Unified CallManager 5.0(2) supports all phone configuration settings related to the supported phones.

## SSL Configuration

Do the following tasks to set up secure communication between Cisco Unified CallManager 5.0(2) servers and the VPT server:

1. If you do not already have access to a copy of the server certificate for each Cisco Unified CallManager 5.0(2) server that you want to access, export a copy by doing the [“To Export SSL Certificates from Cisco Unified CallManager Administration”](#) procedure on page 9.
2. Copy the certificate(s) to the VPT server. See the [“To Copy Certificates to the VPT Server”](#) procedure on page 9.
3. Add the Connection certificate(s) to a keystore on the VPT server. See the [“To Add Certificates to a Keystore by Using Keytool”](#) procedure on page 10.
4. If you have not already done so, configure the keystore properties in the Cisco Voice Provisioning Tool. See the [“To Configure Keystore Information in the Cisco Voice Provisioning Tool”](#) procedure on page 11.

### To Export SSL Certificates from Cisco Unified CallManager Administration

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- Step 1** Log on to Cisco Unified CallManager Administration.
  - Step 2** Navigate to Platform Administration.
  - Step 3** Click **Security > CertificateManagement > DownloadCertificate/CTL**.
  - Step 4** Click **Download Own Cert**, and click **Next**.
  - Step 5** Click **Tomcat**, and click **Next**.
  - Step 6** Click **Tomcat\_cert**, and click **Next**.
  - Step 7** Click **Continue**.
  - Step 8** Right-click **Tomcat\_cert**, and click **Save Target As**.
  - Step 9** In the Save As dialog box, change Save As Type to **All Files**.
  - Step 10** Save the certificate as tomcat\_cert.cer, in a known directory.
  - Step 11** Repeat [Step 1](#) through [Step 10](#) on each Cisco Unified CallManager 5.0(2) server that you want to access from VPT.
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### To Copy Certificates to the VPT Server

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- Step 1** Copy the certificate(s) to the VPT server by doing the applicable steps:
  - Recommended—By using a floppy disk. Continue with [Step 2](#).
  - For secure networks—By using a network share. Skip to [Step 3](#).

- Step 2** If you are using a floppy disk to copy the certificate, do the following sub-steps:
- a. Insert an empty formatted floppy disk in the floppy drive of the Cisco Unified CallManager server.
  - b. Browse to the directory that contains the certificate (.CER) file.
  - c. Copy the certificate file to the floppy disk.
  - d. Remove the floppy disk from the Connection or CA server.
  - e. Insert the floppy disk in the floppy drive of a VPT server.
  - f. Copy the certificate file on the floppy disk to a directory on the VPT server.
  - g. For security, delete the certificate file on the floppy disk.
- Step 3** If you are using a secure network share to copy the certificate, do the following sub-steps:
- a. On the Cisco Unified CallManager server, browse to the directory that contains the certificate.
  - b. Select the certificate file, and press **Ctrl-C**.
  - c. Open a network share to the VPT server and log on.
  - d. Browse to or create a directory on the VPT server in which to store certificates.
  - e. To paste the certificate file, press **Ctrl-V**.

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To configure VPT to communicate with Cisco Unified CallManager 5.0(2), you must use the keytool application, which is included as part of the Sun Microsystems Java Development Kit (JDK) when you install the Cisco Voice Provisioning Tool.

The keytool application creates a keystore (by default, the keystore is stored as a file). You can store multiple certificates in a keystore; the keystore is created automatically when you add the first certificate by using the keytool application. For more information on the keytool command, refer to the Sun Microsystems Java Development Kit documentation.

#### To Add Certificates to a Keystore by Using Keytool

- Step 1** On the VPT server, check to make sure that the PATH environment variable on the system includes the path to the bin directory of the JDK that is installed with VPT:
- a. On the Windows Start menu, choose **Settings > Control Panel > System**.
  - b. Click the **Advanced** tab.
  - c. Click **Environment Variables**.
  - d. In the System Variables list, find and click the **Path** variable and click **Edit**.
  - e. If it is not already present in the path, add the full path to the bin directory of the JDK that is installed with VPT. Make sure that a semicolon (;) separates the new entry from any other entries. For example, if the JDK was installed in C:\j2sdk1.4.2\_03, add the following to the end of the path:  
 **;C:\j2sdk1.4.2\_03\bin**
  - f. Click **OK**.
  - g. Close the System Properties and Control Panel windows.
- Step 2** Verify that the JDK tools are available by using the path specified in [Step 1](#):
- a. On the Windows Start menu, choose **Programs > Accessories > Command Prompt**.
  - b. In the command prompt window, enter **javac**. If the path is set correctly, usage information for the javac command displays.

**Step 3** In the command prompt window that opened in [Step 2](#), change to the directory where the Cisco Voice Provisioning Tool is installed. For example, enter:  
**cd C:\Program Files\Cisco Systems\Voice Provisioning Tool**  
 and press **Enter**.

**Step 4** Enter  
**keytool -import -alias <Name of Server the Certificate was Obtained From> -storepass <Password> -File <Certificate File> -keystore <Keystore File>**  
 and press **Enter**.

We recommend that you use the name of the Cisco Unified CallManager server for the alias. For example, if a self-signed certificate file from server CCM1 is stored in C:\certificates\CCM1-cert.CER, you might enter: `keytool -import -alias CCM1 -storepass pa$$w0rd! -File C:\certificates\CCM1-cert.CER -keystore C:\VPTProdSysKeystore`



**Note** The -keystore parameter specifies a file that holds the keystore. If you do not specify a full path, the file is created in the directory in which you run the keytool command. You will need to know the full path to the keystore file to configure the VPT security settings in the next procedure.

**Step 5** When prompted to trust the certificate, enter **yes** and press **Enter**.

**Step 6** To verify that the import was successful, enter  
**keytool -list -keystore <Keystore File>**  
 and press **Enter**.

**Step 7** Repeat [Step 4](#) through [Step 6](#) for each certificate.



**Note** Ensure all product system keys are stored in the same keystore for the Cisco Voice Provisioning Tool to access them. Make sure you use the correct syntax for the keystore value each time that you enter a new certificate.

**Step 8** Close the command prompt window.

**Step 9** Stop and restart the VPT Tomcat service:

- a. On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- b. In the right pane of Services, right-click VPT Tomcat, and click **Stop**.
- c. When the service has stopped, right-click VPT Tomcat again, and click **Start**.
- d. Close Services.

The new certificates are not used until you restart the VPT service.



**Note** To configure keystore settings, your administrator account must belong to a role that has VPT Configuration Modify permissions for the VPT application. If you do not see the VPT Administration > Configuration option in the VPT navigation menu, your account does not have the applicable permissions.

### To Configure Keystore Information in the Cisco Voice Provisioning Tool

**Step 1** In the Cisco Voice Provisioning Tool, choose **VPT Administration > Configuration**.

The Configuration window displays.

- Step 2** In the Security settings section, enter the full path of the keystore and the password that you specified in [Step 4](#) of the “[To Add Certificates to a Keystore by Using Keytool](#)” procedure on page 10.
- Step 3** Click **Save**.
- Step 4** For the changes to take effect, you must restart the Tomcat service. On the Windows Start menu, choose **Programs > Administrative Tools > Services**. In the right pane, locate **VPT Tomcat**, right-click it, and click **Restart**.

## Supported Cisco IP Phone Models

The following table lists all of the phone models that are supported with the Cisco Unified CallManager 5.0(2) plug-in, as well as the applicable protocols. For more information, see the “Supported Cisco IP Phone Models” section in the “Cisco Voice Provisioning Tool Overview” chapter in the *Cisco Voice Provisioning Tool User and Phone Management Guide*, at [http://www.cisco.com/en/US/products/ps6524/prod\\_maintenance\\_guides\\_list.html](http://www.cisco.com/en/US/products/ps6524/prod_maintenance_guides_list.html).

**Table 2** *Cisco Unified CallManager 5.0(2) Plug-in Supported Phone Models and Applicable Protocols*

| Phone Type                 | SCCP Protocol Is Applicable | SIP Protocol Is Applicable |
|----------------------------|-----------------------------|----------------------------|
| Cisco 7902                 | Yes                         | No                         |
| Cisco 7905                 | Yes                         | Yes                        |
| Cisco 7910                 | Yes                         | No                         |
| Cisco 7911                 | Yes                         | Yes                        |
| Cisco 7912                 | Yes                         | Yes                        |
| Cisco 7920                 | Yes                         | No                         |
| Cisco 7935                 | Yes                         | No                         |
| Cisco 7936                 | Yes                         | No                         |
| Cisco 7940                 | Yes                         | Yes                        |
| Cisco 7941                 | Yes                         | Yes                        |
| Cisco 7941G-GE             | Yes                         | Yes                        |
| Cisco 7960                 | Yes                         | Yes                        |
| Cisco 7961                 | Yes                         | Yes                        |
| Cisco 7961G-GE             | Yes                         | Yes                        |
| Cisco 7970                 | Yes                         | Yes                        |
| Cisco 7971                 | Yes                         | Yes                        |
| Cisco 7985                 | Yes                         | No                         |
| Cisco IP Communicator      | Yes                         | No                         |
| Cisco Unified Communicator | No                          | Yes                        |

## Supported Cisco Device Profile Types

The following table lists all of the supported Cisco device profile types that are supported with the Cisco Unified CallManager 5.0(2) plug-in, as well as the applicable protocols. For more information, see the “Device Profiles for Cisco IP Phone Models” section in the “Cisco Voice Provisioning Tool Overview” chapter in the *Cisco Voice Provisioning Tool User and Phone Management Guide*, at [http://www.cisco.com/en/US/products/ps6524/prod\\_maintenance\\_guides\\_list.html](http://www.cisco.com/en/US/products/ps6524/prod_maintenance_guides_list.html).

**Table 3** *Cisco Unified CallManager 5.0(2) Plug-in Supported Device Profile Types and Applicable Protocols*

| Phone types           | SCCP Protocol Is Applicable | SIP Protocol Is Applicable |
|-----------------------|-----------------------------|----------------------------|
| Cisco 7905            | Yes                         | No                         |
| Cisco 7906            | Yes                         | Yes                        |
| Cisco 7911            | Yes                         | Yes                        |
| Cisco 7912            | Yes                         | No                         |
| Cisco 7920            | Yes                         | No                         |
| Cisco 7940            | Yes                         | No                         |
| Cisco 7941            | Yes                         | Yes                        |
| Cisco 7941G-GE        | Yes                         | Yes                        |
| Cisco 7960            | Yes                         | No                         |
| Cisco 7961            | Yes                         | Yes                        |
| Cisco 7961G-GE        | Yes                         | Yes                        |
| Cisco 7970            | Yes                         | Yes                        |
| Cisco 7971            | Yes                         | Yes                        |
| Cisco 7985            | Yes                         | No                         |
| Cisco IP Communicator | Yes                         | No                         |

## User Configuration Settings

This section contains the following topics:

- [CallManager User Information Settings, page 13](#)
- [Considerations for User Settings with LDAP, page 14](#)
- [Unicode Support, page 14](#)

## CallManager User Information Settings

Fields in the Cisco Unified CallManager 5.0(2) plug-in have the same definitions as fields of the same name in Cisco Unified CallManager. For field definitions, see Cisco Unified CallManager Help.

## Considerations for User Settings with LDAP

If LDAP synchronization is enabled in Cisco Unified CallManager, the following fields (on the Add New User and Modify User pages) cannot be edited using VPT:

- First Name
- Last Name
- Middle Name
- Telephone Number
- Mail ID
- Manager User ID
- Department
- Associated PC

If LDAP Authentication is enabled in CCM, the following field (on the Modify User page) will not be editable.

- Password

## Unicode Support

You can now enter unicode values in the following Cisco Unified CallManager fields:

- First Name
- Middle Name
- Last Name
- Mail ID
- CCM Password
- Department
- Manager's User ID
- Associated PC
- Digest Credentials
- Template Name
- Template Description

## Bulk Provisioning

The bulk feature will support either comma-separated (typically .csv) or tab-delimited (typically .txt) file formats. The rest of this document simply refers to CSV files to indicate either type of file, except where there are specific differences. The file format will be auto-detected when reading files for import operations, but the admin must select the file format to use for export operations.

There must be a header within the file that indicates which column contains which parameter. This header allows for the extensibility features of VPT, allowing operations to be performed across multiple versions of products that may require different data, while using a single file. The header is not

case-sensitive, but the text that is used in the header must match the text described in the tables below. If a header is not recognized by VPT, it will be ignored, and no error or warning will be produced unless the field is required.

Both ASCII and Unicode (UTF8 encoded) file encoding are accepted. The encoding must be specified by the administrator when performing or scheduling the operation and uploading the file. The file can be imported into or exported from any suitable spreadsheet tool, such as Microsoft Excel, if the file format and encoding are supported.

Note that Microsoft Excel will sometimes write data to a .csv or .txt file surrounded by double-quotes, and will encode double-quote characters in the data by duplicating the character. The VPT bulk feature will correctly interpret this encoding during import operations, but will never add double-quote characters like this when exporting data to a file. Excel can read these files even without the added double-quotes.

The file format is extensible so each plug-in can define its own set of data columns. This means that the header row is required to specify the name of the parameter that each column represents for a given plug-in. The header row can be broken down according to the base application and each product plug-in, much like the toggle sections found within the provisioning screens. The base VPT application specifies some set of base columns, and each product also defines its own set of columns. The tables in this section detail the columns for VPT 1.0 and Cisco Unified CallManager 5.0(2).

This document will use the following terms to refer to contents of a bulk CSV file:

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Row</b>            | 1 row of data. Each row is processed independently from other rows.                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Column</b>         | 1 column of data in the file. Each column has a column header identifying the name of the parameter this column represents in each row                                                                                                                                                                                                                                                                                                |
| <b>Column set</b>     | A pre-defined set of columns that are related. Cisco Unity user data would be grouped into a column set, for example. The column set may be optional or mandatory, and the columns within a column set may also be optional or mandatory. So for example, the Cisco Unity user data column set is optional when adding a user, but if the Cisco Unity column set is present, the Cisco Unity subscriber template column is mandatory. |
| <b>Default values</b> | Some attributes may be set to default values if not specified in the bulk import file. These defaults are not provided by VPT. If defaults are applied, they are supplied by the native product system when no value is specified for a particular attribute. These defaults typically only apply during add operations.                                                                                                              |

## User Parameters

User parameters are listed in two tables:

- [VPT 1.0 Base User Parameter Column Set \(Required\)](#)
- [Cisco Unified CallManager 5.0\(2\) User Parameter Column Set \(Optional\)](#)

**Table 4** VPT 1.0 Base User Parameter Column Set (Required)

| Column Name        | Required/<br>Optional for<br>AddUser | Required/<br>Optional for<br>Modify User | Clearable | Parameter Notes                                                                                                                                                                                                                                                                                                                  |
|--------------------|--------------------------------------|------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vpt_productSystems | Required*                            | Required*                                | No        | The list of product systems to which a row of data is to be applied. This may be a single system or several separated by semicolons (;) in a list.                                                                                                                                                                               |
| vpt_templateName   | Optional*                            | Optional*                                | No        | The name of the template to apply when adding/updating this user. The values in the template will only be used when no corresponding values are provided in the CSV file. In other words, if an attribute value is specified both in the template and in the CSV file, the value specified in the CSV file will take precedence. |
| vpt_user_userID    | Required                             | Required                                 | No        |                                                                                                                                                                                                                                                                                                                                  |
| vpt_user_firstName | Optional                             | Optional                                 | Yes       |                                                                                                                                                                                                                                                                                                                                  |
| vpt_user_lastName  | Required                             | Optional                                 | No        |                                                                                                                                                                                                                                                                                                                                  |

\* If a template is specified, then the vpt\_productSystems column is not required because the template will contain the product system name(s).

**Table 5** Cisco Unified CallManager 5.0(2) User Parameter Column Set (Optional)

| Column Name                | Required/<br>Optional for<br>AddUser | Required/<br>Optional for<br>Modify User | Clearable | Parameter Notes                                                                                                                                                                                                                        |
|----------------------------|--------------------------------------|------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ccm_user_password          | Required                             | Optional                                 | No        |                                                                                                                                                                                                                                        |
| ccm_user_pin               | Required                             | Optional                                 | No        |                                                                                                                                                                                                                                        |
| ccm_user_middleName        | Optional                             | Optional                                 | Yes       |                                                                                                                                                                                                                                        |
| ccm_user_mailId            | Optional                             | Optional                                 | Yes       |                                                                                                                                                                                                                                        |
| ccm_user_userLocale        | Optional                             | Optional                                 | Yes       | Select from Cisco Unified CallManager defined/installed locale strings. No validation will be performed in bulk. Will rely on error message from Cisco Unified CallManager system.                                                     |
| ccm_user_associatedPc      | Optional *                           | Optional *                               | Yes       | Only relevant for Cisco SoftPhone and Cisco Unified CallManager Attendant Console users. Will never be required by bulk, even though it may be required to make these features work correctly.                                         |
| ccm_user_presenceGroup     | Optional                             | Optional                                 | No        | Select from Cisco Unified CallManager defined presence group names. If left empty, will default to "StandardPresenceGroup." No validation will be performed in bulk; will rely on error message from Cisco Unified CallManager system. |
| ccm_user_digestCredentials | Optional                             | Optional                                 | Yes       |                                                                                                                                                                                                                                        |

**Table 5** Cisco Unified CallManager 5.0(2) User Parameter Column Set (Optional) (continued)

| Column Name                          | Required/<br>Optional for<br>AddUser | Required/<br>Optional for<br>Modify User | Clearable                                                        | Parameter Notes                                                                                                                                                                                                                                                                                 |
|--------------------------------------|--------------------------------------|------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ccm_user_groups                      | Optional                             | Optional                                 | Yes                                                              | Semi-colon separated list of group names. This is an absolute list and will replace the current list of groups.                                                                                                                                                                                 |
| ccm_user_subscribeCallingSearchSpace | Optional                             | Optional                                 | Yes                                                              | Select from Cisco Unified CallManager defined calling search spaces. No validation will be performed in bulk; will rely on error message from Cisco Unified CallManager system.                                                                                                                 |
| ccm_user_allowControlOfDeviceFromCTI | Optional                             | Optional                                 | No                                                               | Enable/Disable                                                                                                                                                                                                                                                                                  |
| ccm_user_managersUserID              | Optional                             | Optional                                 | Yes                                                              |                                                                                                                                                                                                                                                                                                 |
| ccm_user_department                  | Optional                             | Optional                                 | Yes                                                              |                                                                                                                                                                                                                                                                                                 |
| ccm_user_telephoneNo                 | Optional                             | Optional                                 | Yes                                                              |                                                                                                                                                                                                                                                                                                 |
| ccm_user_primaryExt                  | Optional                             | Optional                                 | Yes                                                              | Must be specified either with a partition name, if in a partition, or without a partition name if DN is not in a partition. For example, either "12345" if not in a partition or "12345 in My-partition" if the DN is in a partition named "My-partition."                                      |
| ccm_user_defaultProfile              | Optional                             | Optional                                 | Yes                                                              | If not specified during add, the default profile will be automatically set to the first profile in the association list. vpt_clear will result in no default profile selected, even though profiles remain associated.                                                                          |
| ccm_user_associatedDeviceNames       | Optional *                           | Optional *                               | Yes.<br>Clearing this column will remove all associated devices. | This is a list of all device names (phone and profile names) that are to be associated with this user. This list is an absolute list and will replace any current list of associated devices, which may result in removal of associations. Removal of associations will not delete the devices. |
| ccm_user_associatedDeviceClasses     | Optional *                           | Optional *                               | No                                                               | The device class of each associated device. Either "Phone" or "Device Profile" strings must be specified for each associated device.                                                                                                                                                            |

\* There must be a 1:1 match between device names and device classes.

## Phone/Profile Parameters

The Cisco Unified CallManager 5.0(2) plug-in will support bulk import/export of either phones or profiles. Each phone or profile must be specified in its own row within the bulk import file. Because phones and profiles each have some phone configuration information and line configuration, this data is broken down into column sets, one column set for the phone config and one column set for each line configured for the phone or profile.

Some attributes—called device attributes—are common to all devices, both phones and profiles. Of the remaining attributes (either phone or profile), the set of required and optional attributes for each type of phone and each type of profile will be different, as is the case for the web-based administration screens for the different types. Line information will be the same for all phones and profile types though, also similar to the normal web-based admin screens. For the purposes of explanation, the complete list of phone and profile parameters are provided here, with no specification as to which apply to which device types.

Phone and profile parameters are listed in two tables:

- [Cisco Unified CallManager 5.0\(2\) Phone Parameter Column Set](#)
- [Cisco Unified CallManager 5.0\(2\) User Device Profile Parameter Column Set](#)

**Table 6** *Cisco Unified CallManager 5.0(2) Phone Parameter Column Set*

| Column Name                         | Required/<br>Optional<br>for Add | Required/<br>Optional<br>for Modify | Clearable | Attribute<br>Applies to<br>Phones &<br>Profiles | Parameter Notes                                                                                                                                                                                                                    |
|-------------------------------------|----------------------------------|-------------------------------------|-----------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vpt_templateName                    | Optional                         | Optional                            | No        | Yes                                             | The name of the phone or profile template to use when adding/modifying this phone/template. If an attribute value is specified both in the template and in the CSV file, the value specified in the CSV file will take precedence. |
| ccm_device_deviceClass              | Required                         | Required                            | N/A       | Yes                                             |                                                                                                                                                                                                                                    |
| ccm_device_deviceType               | Required                         | Required                            | N/A       | Yes                                             |                                                                                                                                                                                                                                    |
| ccm_device_protocol                 | Required                         | Required                            | N/A       | Yes                                             | SIP or SCCP                                                                                                                                                                                                                        |
| ccm_device_deviceType               | Required                         | Required                            | N/A       | Yes                                             |                                                                                                                                                                                                                                    |
| <b>Basic Configuration Settings</b> |                                  |                                     |           |                                                 |                                                                                                                                                                                                                                    |
| ccm_device_deviceDescription        | Optional                         | Optional                            | Yes       | Yes                                             |                                                                                                                                                                                                                                    |
| ccm_device_phoneButtonTemplate      | Required                         | Required                            | No        | Yes                                             |                                                                                                                                                                                                                                    |

**Table 6** Cisco Unified CallManager 5.0(2) Phone Parameter Column Set (continued)

| Column Name                      | Required/<br>Optional<br>for Add | Required/<br>Optional<br>for Modify | Clearable | Attribute<br>Applies to<br>Phones &<br>Profiles | Parameter Notes                                                                                                                                                                                                                                                                                      |
|----------------------------------|----------------------------------|-------------------------------------|-----------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ccm_phone_name                   | ignored                          | Required                            | No        | No                                              | The phone name is always generated from the MAC address. This name will be ignored during Bulk Add operations. It will always be exported for informational purposes and because it is the unique identifier required during Modify operations and for user-phone associations.                      |
| ccm_communicator_name            | Required                         | Required                            | No        | No                                              | The IP communicator and unified communicator name (relevant only when adding or updating an IP or unified personal communicator) is always required and is the primary key for working with communicators. No validation of the name is performed by VPT.                                            |
| ccm_phone_macAddress             | Required                         | Optional                            | No        | No                                              | This is used as the unique identifier for phones during Add, but is optional during Modify. If specified during Modify operations this allows the MAC address (and the phone name) to be changed.                                                                                                    |
| ccm_phone_devicePool             | Required                         | Optional                            | No        | No                                              |                                                                                                                                                                                                                                                                                                      |
| ccm_phone_callingSearchSpace     | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                                                                                                                                                                                                      |
| ccm_phone_aarCallingSearchSpace  | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                                                                                                                                                                                                      |
| <b>IP Phone Services</b>         |                                  |                                     |           |                                                 |                                                                                                                                                                                                                                                                                                      |
| ccm_device_subscribedServiceName | Optional                         | Optional                            | Yes       | Yes                                             | A list of IP phone service subscription names (the subscribed service display names) for each service this device is subscribed to. This list is absolute and the list of currently subscribed services will be replaced by this list. If vpt_clear is specified, all services will be unsubscribed. |
| ccm_device_subscribedServiceUrl  | Optional                         | Optional                            | No        | Yes                                             | A list of IP phone service URLs matching 1:1 the list of service names.                                                                                                                                                                                                                              |

Table 6 Cisco Unified CallManager 5.0(2) Phone Parameter Column Set (continued)

| Column Name                             | Required/<br>Optional<br>for Add | Required/<br>Optional<br>for Modify | Clearable | Attribute<br>Applies to<br>Phones &<br>Profiles | Parameter Notes                                                                                                                                                                                                          |
|-----------------------------------------|----------------------------------|-------------------------------------|-----------|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ccm_device_ipPhoneServiceName           | Optional                         | Optional                            | No        | Yes                                             | A list of IP phone service names (the actual name of the service, not the display name) this device is subscribed to. This list is absolute and the list of currently subscribed services will be replaced by this list. |
| ccm_phone_ownerUserID                   | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                                                                                                                          |
| ccm_phone_mediaResourceGroupList        | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                                                                                                                          |
| ccm_phone_networkHoldAudioSource        | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                                                                                                                          |
| ccm_device_userHoldAudioSource          | Optional                         | Optional                            | Yes       | Yes                                             |                                                                                                                                                                                                                          |
| ccm_phone_location                      | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                                                                                                                          |
| ccm_phone_networkLocale                 | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                                                                                                                          |
| ccm_device_userLocale                   | Optional                         | Optional                            | Yes       | Yes                                             |                                                                                                                                                                                                                          |
| ccm_device_ignorePresentationIndicators | Optional                         | Optional                            | No        | Yes                                             | Enabled/Disabled                                                                                                                                                                                                         |
| ccm_phone_builtInBridge                 | Optional                         | Optional                            | No        | No                                              | On/Off/Default                                                                                                                                                                                                           |
| ccm_phone_deviceSecurityMode            | Optional                         | Optional                            | Yes       | No                                              | One of the following: <ul style="list-style-type: none"> <li>• Use System Default</li> <li>• Non Secure</li> <li>• Authenticated</li> <li>• Encrypted</li> </ul>                                                         |
| ccm_phone_signalPacketCaptureMode       | Optional                         | Optional                            | Yes       | No                                              | One of the following: <ul style="list-style-type: none"> <li>• None</li> <li>• Real-time Mode</li> <li>• Batch Processing Mode</li> </ul>                                                                                |
| ccm_phone_packetCaptureDuration         | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                                                                                                                          |
| ccm_device_privacy                      | Optional                         | Optional                            | No        | Yes                                             | On/Off/Default                                                                                                                                                                                                           |
| ccm_phone_retryVideoCallAsAudio         | Optional                         | Optional                            | No        | No                                              | Enabled/Disabled                                                                                                                                                                                                         |
| ccm_device_softkeyTemplate              | Optional                         | Optional                            | Yes       | Yes                                             |                                                                                                                                                                                                                          |
| <b>Expansion Module Information</b>     |                                  |                                     |           |                                                 |                                                                                                                                                                                                                          |
| ccm_device_module1                      | Optional                         | Optional                            | Yes       | Yes                                             |                                                                                                                                                                                                                          |
| ccm_device_module2                      | Optional                         | Optional                            | Yes       | Yes                                             |                                                                                                                                                                                                                          |
| <b>Firmware Load Information</b>        |                                  |                                     |           |                                                 |                                                                                                                                                                                                                          |
| ccm_phone_phoneLoadName                 | Optional                         | Optional                            | No        | No                                              |                                                                                                                                                                                                                          |
| ccm_phone_module1LoadName               | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                                                                                                                          |

**Table 6** Cisco Unified CallManager 5.0(2) Phone Parameter Column Set (continued)

| Column Name                             | Required/<br>Optional<br>for Add | Required/<br>Optional<br>for Modify | Clearable | Attribute<br>Applies to<br>Phones &<br>Profiles | Parameter Notes                                                                                                             |
|-----------------------------------------|----------------------------------|-------------------------------------|-----------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| ccm_phone_module2LoadName               | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                             |
| <b>IP Phone External Data Locations</b> |                                  |                                     |           |                                                 |                                                                                                                             |
| ccm_phone_information                   | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                             |
| ccm_phone_services                      | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                             |
| ccm_phone_directory                     | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                             |
| ccm_phone_authenticationServer          | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                             |
| ccm_phone_messages                      | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                             |
| ccm_phone_proxyServer                   | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                             |
| ccm_phone_idle                          | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                             |
| ccm_phone_idleTimer                     | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                             |
| <b>CAPF Settings</b>                    |                                  |                                     |           |                                                 |                                                                                                                             |
| ccm_phone_certificateOperation          | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                             |
| ccm_phone_authenticationMode            | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                             |
| ccm_phone_authenticationString          | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                             |
| ccm_phone_keySize                       | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                             |
| ccm_phone_operationCompletesBy          | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                             |
| <b>MLPP Settings</b>                    |                                  |                                     |           |                                                 |                                                                                                                             |
| ccm_device_mlppDomain                   | Optional                         | Optional                            | Yes       | Yes                                             |                                                                                                                             |
| ccm_device_mlppIndication               | Optional                         | Optional                            | No        | Yes                                             | On/Off/Default                                                                                                              |
| ccm_device_mlppPreemption               | Optional                         | Optional                            | No        | Yes                                             | One of the following: <ul style="list-style-type: none"> <li>• Default</li> <li>• Disabled</li> <li>• Forceful</li> </ul>   |
| <b>Product Specific Information</b>     |                                  |                                     |           |                                                 |                                                                                                                             |
| ccm_phone_disableSpeakerPhone           | Optional                         | Optional                            | No        | No                                              | On/Off                                                                                                                      |
| ccm_phone_disableSpeakerPhoneAndHeadset | Optional                         | Optional                            | No        | No                                              | On/Off                                                                                                                      |
| ccm_phone_forwardingDelay               | Optional                         | Optional                            | No        | No                                              | Enabled/Disabled                                                                                                            |
| ccm_phone_settingsAccess                | Optional                         | Optional                            | No        | No                                              | One of the following: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> <li>• Restricted</li> </ul> |
| ccm_phone_gratuitousARP                 | Optional                         | Optional                            | No        | No                                              | Enabled/Disabled                                                                                                            |
| ccm_phone_webAccess                     | Optional                         | Optional                            | No        | No                                              | Enabled/Disabled                                                                                                            |

Table 6 Cisco Unified CallManager 5.0(2) Phone Parameter Column Set (continued)

| Column Name                                             | Required/<br>Optional<br>for Add | Required/<br>Optional<br>for Modify | Clearable | Attribute<br>Applies to<br>Phones &<br>Profiles | Parameter Notes                |
|---------------------------------------------------------|----------------------------------|-------------------------------------|-----------|-------------------------------------------------|--------------------------------|
| ccm_phone_pcPort                                        | Optional                         | Optional                            | No        | No                                              | Enabled/Disabled               |
| ccm_phone_pcVoiceVLANAccess                             | Optional                         | Optional                            | No        | No                                              | Enabled/Disabled               |
| ccm_phone_autoLineSelect                                | Optional                         | Optional                            | No        | No                                              | Enabled/Disabled               |
| ccm_phone_webAccess                                     | Optional                         | Optional                            | No        | No                                              | Enabled/Disabled               |
| ccm_phone_videoCapabilities                             | Optional                         | Optional                            | No        | No                                              | Enabled/Disabled               |
| ccm_phone_displayOnTime                                 | Optional                         | Optional                            | Yes       | No                                              |                                |
| ccm_phone_displayOnDuration                             | Optional                         | Optional                            | Yes       | No                                              |                                |
| ccm_phone_displayIdleTimeout                            | Optional                         | Optional                            | Yes       | No                                              |                                |
| ccm_phone_daysDisplayNotActive                          | Optional                         | Optional                            | Yes       | No                                              |                                |
| ccm_phone_spanToPcPort                                  | Optional                         | Optional                            | No        | No                                              | Enabled/Disabled               |
| <b>Product Specific Information For IP Communicator</b> |                                  |                                     |           |                                                 |                                |
| ccm_phone_ipAddressAutodetectionURL                     | Optional                         | Optional                            | Yes       | No                                              |                                |
| ccm_phone_rtpPortRangeStart                             | Optional                         | Optional                            | Yes       | No                                              |                                |
| ccm_phone_rtpPortRangeEnd                               | Optional                         | Optional                            | Yes       | No                                              |                                |
| ldapServerInformationFile                               | Optional                         | Optional                            | Yes       | No                                              |                                |
| verifySoftwareVersions                                  | Required                         | Optional                            | No        | No                                              | On Upgrade/At Startup          |
| <b>New Settings for CCM 5.0(2)</b>                      |                                  |                                     |           |                                                 |                                |
| ccm_phone_commonPhoneProfile                            | Required                         | Optional                            | No        | No                                              |                                |
| ccm_phone_initialSoftkeyDisplay                         | Optional                         | Optional                            | No        | No                                              | Boolean                        |
| ccm_phone_loadServer                                    | Optional                         | Optional                            | Yes       | No                                              |                                |
| ccm_phone_loggingDisplay                                | Required                         | Optional                            | No        | No                                              | Enabled/Disabled/PC Controlled |
| ccm_phone_useOfPhonebookSoftkey                         | Required                         | Optional                            | No        | No                                              | Phonebook / IP Phone Services  |
| ccm_phone_sshUser                                       | Optional                         | Optional                            | Yes       | No                                              |                                |
| ccm_phone_sshPassword                                   | Optional                         | Optional                            | Yes       | No                                              |                                |
| ccm_phone_securityProfile                               | Required                         | Optional                            | No        | No                                              |                                |
| ccm_phone_presenceGroup                                 | Required                         | Optional                            | No        | No                                              |                                |
| ccm_phone_requireDtmfReception                          | Optional                         | Optional                            | No        | No                                              | Boolean                        |
| ccm_phone_subscribeCallingSearchSpace                   | Optional                         | Optional                            | Yes       | No                                              |                                |
| ccm_phone_unattendedPort                                | Optional                         | Optional                            | No        | No                                              | Boolean                        |
| ccm_phone_rfc2833Disabled                               | Optional                         | Optional                            | No        | No                                              | Boolean                        |
| ccm_phone_digestUser                                    | Optional                         | Optional                            | Yes       | No                                              |                                |

**Table 6** Cisco Unified CallManager 5.0(2) Phone Parameter Column Set (continued)

| Column Name                                      | Required/<br>Optional<br>for Add | Required/<br>Optional<br>for Modify | Clearable | Attribute<br>Applies to<br>Phones &<br>Profiles | Parameter Notes |
|--------------------------------------------------|----------------------------------|-------------------------------------|-----------|-------------------------------------------------|-----------------|
| ccm_phone_<br>mediaTerminationPointRequired      | Optional                         | Optional                            | No        | No                                              | Boolean         |
| ccm_phone_<br>mtpPreferredOriginatingCodec       | Required                         | Optional                            | No        | No                                              |                 |
| ccm_phone_<br>outOfDialogReferCallingSearchSpace | Optional                         | Optional                            | Yes       | No                                              |                 |
| ccm_phone_<br>reRoutingCallingSearchSpace        | Optional                         | Optional                            | Yes       | No                                              |                 |
| ccm_phone_sipDialRules                           | Optional                         | Optional                            | Yes       | No                                              |                 |
| ccm_phone_sipProfile                             | Required                         | Optional                            | No        | No                                              |                 |
| ccm_phone_symmetricKey                           | Optional                         | Optional                            | Yes       | No                                              |                 |

**Table 7** Cisco Unified CallManager 5.0(2) User Device Profile Parameter Column Set

| Column Name                         | Required/<br>Optional<br>for Add | Required/<br>Optional<br>for Modify | Clearable | Attribute<br>Applies to<br>Phones &<br>Profiles | Parameter Notes                                                                                                                                                                                                                    |
|-------------------------------------|----------------------------------|-------------------------------------|-----------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ccm_phone_templateName              | Optional                         | Optional                            | No        | Yes                                             | The name of the phone or profile template to use when adding/modifying this phone/template. If an attribute value is specified both in the template and in the CSV file, the value specified in the CSV file will take precedence. |
| ccm_device_deviceClass              | Required                         | Required                            | N/A       | Yes                                             |                                                                                                                                                                                                                                    |
| ccm_device_deviceType               | Required                         | Required                            | N/A       | Yes                                             |                                                                                                                                                                                                                                    |
| <b>Basic Configuration Settings</b> |                                  |                                     |           |                                                 |                                                                                                                                                                                                                                    |
| ccm_device_deviceDescription        | Optional                         | Optional                            | Yes       | Yes                                             |                                                                                                                                                                                                                                    |
| ccm_device_<br>phoneButtonTemplate  | Required                         | Required                            | No        | Yes                                             |                                                                                                                                                                                                                                    |
| ccm_profile_name                    | Required                         | Required                            | No        | No                                              | The profile name is always required and is the primary key for working with profiles.                                                                                                                                              |
| ccm_device_privacy                  | Optional                         | Optional                            | No        | Yes                                             | On/Off/Default                                                                                                                                                                                                                     |
| <b>IP Phone Services</b>            |                                  |                                     |           |                                                 |                                                                                                                                                                                                                                    |

Table 7 Cisco Unified CallManager 5.0(2) User Device Profile Parameter Column Set (continued)

| Column Name                                 | Required/<br>Optional<br>for Add | Required/<br>Optional<br>for Modify | Clearable | Attribute<br>Applies to<br>Phones &<br>Profiles | Parameter Notes                                                                                                                                                                                                                                                                                      |
|---------------------------------------------|----------------------------------|-------------------------------------|-----------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ccm_device_<br>subscribedServiceName        | Optional                         | Optional                            | Yes       | Yes                                             | A list of IP phone service subscription names (the subscribed service display names) for each service this device is subscribed to. This list is absolute and the list of currently subscribed services will be replaced by this list. If vpt_clear is specified, all services will be unsubscribed. |
| ccm_device_<br>subscribedServiceUrl         | Optional                         | Optional                            | No        | Yes                                             | A list of IP phone service URLs matching 1:1 the list of service names.                                                                                                                                                                                                                              |
| ccm_device_<br>ipPhoneServiceName           | Optional                         | Optional                            | No        | Yes                                             | A list of IP phone service names (the actual name of the service, not the display name) this device is subscribed to. This list is absolute and the list of currently subscribed services will be replaced by this list.                                                                             |
| <b>Advanced Settings</b>                    |                                  |                                     |           |                                                 |                                                                                                                                                                                                                                                                                                      |
| ccm_device_<br>userHoldAudioSource          | Optional                         | Optional                            | Yes       | Yes                                             |                                                                                                                                                                                                                                                                                                      |
| ccm_device_userLocale                       | Optional                         | Optional                            | Yes       | Yes                                             |                                                                                                                                                                                                                                                                                                      |
| ccm_device_<br>ignorePresentationIndicators | Optional                         | Optional                            | No        | Yes                                             | Enabled/Disabled                                                                                                                                                                                                                                                                                     |
| ccm_device_softkeyTemplate                  | Optional                         | Optional                            | Yes       | Yes                                             |                                                                                                                                                                                                                                                                                                      |
| <b>Expansion Module Information</b>         |                                  |                                     |           |                                                 |                                                                                                                                                                                                                                                                                                      |
| ccm_device_module1                          | Optional                         | Optional                            | Yes       | Yes                                             |                                                                                                                                                                                                                                                                                                      |
| ccm_device_module2                          | Optional                         | Optional                            | Yes       | Yes                                             |                                                                                                                                                                                                                                                                                                      |
| <b>MLPP Information</b>                     |                                  |                                     |           |                                                 |                                                                                                                                                                                                                                                                                                      |
| ccm_device_mlppDomain                       | Optional                         | Optional                            | Yes       | Yes                                             |                                                                                                                                                                                                                                                                                                      |
| ccm_device_mlppIndication                   | Optional                         | Optional                            | No        | Yes                                             | On/Off/Default                                                                                                                                                                                                                                                                                       |
| ccm_device_mlppPreemption                   | Optional                         | Optional                            | No        | Yes                                             | One of the following: <ul style="list-style-type: none"> <li>• Default</li> <li>• Disabled</li> <li>• Forceful</li> </ul>                                                                                                                                                                            |
| <b>Logout Profile Information</b>           |                                  |                                     |           |                                                 |                                                                                                                                                                                                                                                                                                      |
| ccm_profile_loginUserID                     | Optional                         | Optional                            | Yes       | No                                              |                                                                                                                                                                                                                                                                                                      |

## IP Phone Services

IP Phone services are handled much the same way as other multi-value fields such as product systems and associated devices, although there are a couple of differences. Most importantly, the list of IP phone services is an absolute list for both add and update operations. This means that the list supplied in the bulk import file will replace the current list of subscribed services, which may result in the removal of several already-configured services for a given device. This is not an issue if the bulk file was generated from a bulk-export operation because all subscribed services will be present in the file to begin with.

Another difference is the method of separating the service name strings and the service URL strings. There will be three related columns for IP Phone services:

- The subscription display name (ccm\_device\_subscribedServiceName)
- The subscription URL (ccm\_device\_subscribedServiceUrl)
- The service name (ccm\_device\_ipPhoneServiceName)

Each of these columns contains a list of items, with items separated by semi-colons (;). The first of the three, the subscription display name, is treated as the master column. Other columns have a 1:1 correspondence regarding the items in the semi-colon separated list. If there is a mismatch in ordering or the number of items in each list, the results will be unpredictable and undesirable.

Since the semicolon is a legal character for service names, it must be escaped when it is not being used as a separator character. If a service name needs to contain a semi-colon, that semi-colon must be escaped so that the bulk import system can tell the difference between data and separator characters. The forward slash is used as the escape character. A service name of 'this;is;a;service' would be entered as this;/is;/a;/service in the CSV file.

The list of subscribed services is absolute and will replace the list of currently subscribed services.

Specifying vpt\_clear during a modify for the subscription display name parameter will unsubscribe all services.

**Table 8** Cisco Unified CallManager 5.0(2) Line Parameter Column Set

| Column Name                                     | Required/<br>Optional<br>for Add | Required/<br>Optional<br>for Modify | Clearable | Parameter Notes                                                                    |
|-------------------------------------------------|----------------------------------|-------------------------------------|-----------|------------------------------------------------------------------------------------|
| ccm_line1_extensionNumber                       | Required                         | Required                            | Yes       | Clearing this will remove this line from the phone. This will not delete the line. |
| ccm_line1_partition                             | Optional                         | Optional                            | Yes       |                                                                                    |
| ccm_line1_voicemailprofile                      | Optional                         | Optional                            | Yes       |                                                                                    |
| ccm_line1_lineCallingSearchSpace                | Optional                         | Optional                            | Yes       |                                                                                    |
| ccm_line1_forwardAllVoiceMail                   | Optional                         | Optional                            | No        | true/false                                                                         |
| ccm_line1_forwardAllDestination                 | Optional                         | Optional                            | Yes       |                                                                                    |
| ccm_line1_forwardAllCallingSearchSpace          | Optional                         | Optional                            | Yes       |                                                                                    |
| ccm_line1_forwardBusyInternalVoiceMail          | Optional                         | Optional                            | No        | true/false                                                                         |
| ccm_line1_forwardBusyInternalDestination        | Optional                         | Optional                            | Yes       |                                                                                    |
| ccm_line1_forwardBusyInternalCallingSearchSpace | Optional                         | Optional                            | Yes       |                                                                                    |

**Table 8** Cisco Unified CallManager 5.0(2) Line Parameter Column Set (continued)

| Column Name                                           | Required/<br>Optional<br>for Add | Required/<br>Optional<br>for Modify | Clearable | Parameter Notes |
|-------------------------------------------------------|----------------------------------|-------------------------------------|-----------|-----------------|
| ccm_line1_forwardBusyExternalVoiceMail                | Optional                         | Optional                            | No        | true/false      |
| ccm_line1_forwardBusyExternalDestination              | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_forwardBusyExternalCallingSearchSpace       | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_forwardNoAnswerInternalVoiceMail            | Optional                         | Optional                            | No        | true/false      |
| ccm_line1_forwardNoAnswerInternalDestination          | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_forwardNoAnswerInternalCallingSearchSpace   | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_forwardNoAnswerExternalVoiceMail            | Optional                         | Optional                            | No        | true/false      |
| ccm_line1_forwardNoAnswerExternalDestination          | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_forwardNoAnswerExternalCallingSearchSpace   | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_forwardNoCoverageInternalVoiceMail          | Optional                         | Optional                            | No        | true/false      |
| ccm_line1_forwardNoCoverageInternalDestination        | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_forwardNoCoverageInternalCallingSearchSpace | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_forwardNoCoverageExternalVoiceMail          | Optional                         | Optional                            | No        | true/false      |
| ccm_line1_forwardNoCoverageExternalDestination        | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_forwardNoCoverageExternalCallingSearchSpace | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_lineUserHoldAudioSource                     | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_lineNetworkHoldAudioSource                  | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_lineAARGroup                                | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_autoAnswer                                  | Required                         | Optional                            | Yes       |                 |
| ccm_line1_noAnswerRingDuration                        | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_callPickupGroup                             | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_mlppTarget                                  | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_mlppCallingSearchSpace                      | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_mlppNoAnswerRingDuration                    | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_alertingName                                | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_displayInternalCallerID                     | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_lineTextLabel                               | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_externalPhoneNumberMask                     | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_messageWaitingLampPolicy                    | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_ringSettingPhoneIdle                        | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_ringSettingPhoneActive                      | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_maximumNumberOfCalls                        | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_busyTrigger                                 | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_realMinimumNumberOfCalls                    | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_realMaximumNumberOfCalls                    | Optional                         | Optional                            | Yes       |                 |

**Table 8 Cisco Unified CallManager 5.0(2) Line Parameter Column Set (continued)**

| Column Name                                     | Required/<br>Optional<br>for Add | Required/<br>Optional<br>for Modify | Clearable | Parameter Notes |
|-------------------------------------------------|----------------------------------|-------------------------------------|-----------|-----------------|
| ccm_line1_callerName                            | Required                         | Optional                            | No        | true/false      |
| ccm_line1_redirectedNumber                      | Required                         | Optional                            | No        | true/false      |
| ccm_line1_callerNumber                          | Required                         | Optional                            | No        | true/false      |
| ccm_line1_dialedNumber                          | Required                         | Optional                            | No        | true/false      |
| <b>New Settings for CCM 5.0(2)</b>              |                                  |                                     |           |                 |
| ccm_line1_forwardOnCtiFailureVoicemail          | Optional                         | Optional                            | No        | Boolean         |
| ccm_line1_forwardOnCtiFailureDestination        | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_forwardOnCtiFailureCallingSearchSpace | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_forwardAllSecondaryCallingSearchSpace | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_alertingNameAscii                     | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_presenceGroup                         | Required                         | Optional                            | No        |                 |
| ccm_line1_displayInternalCallerIDAscii          | Optional                         | Optional                            | Yes       |                 |
| ccm_line1_externalPhoneNumberMaskAscii          | Optional                         | Optional                            | Yes       |                 |

## Related Documentation

See the following documents for more information on the Cisco Voice Provisioning Tool and Cisco Unified CallManager:

- *Cisco Voice Provisioning Tool Documentation Guide*

This guide lists and describes the documents that make up the Cisco Voice Provisioning Tool documentation set. The guide is available at [http://www.cisco.com/en/US/products/ps6524/products\\_documentation\\_roadmaps\\_list.html](http://www.cisco.com/en/US/products/ps6524/products_documentation_roadmaps_list.html).

- *Cisco Voice Provisioning Tool Installation and Upgrade Guide, Release 1.0(2)*

This guide describes how to install and upgrade the Cisco Voice Provisioning Tool. The guide is available at [http://www.cisco.com/en/US/products/ps6524/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/ps6524/prod_installation_guides_list.html).

- *Cisco Voice Provisioning Tool System Management and Security Guide*

This guide provides descriptions of the Cisco Voice Provisioning Tool and its components, as well as step-by-step instructions for configuring and managing the tool itself. The guide is available at [http://www.cisco.com/en/US/products/ps6524/prod\\_maintenance\\_guides\\_list.html](http://www.cisco.com/en/US/products/ps6524/prod_maintenance_guides_list.html).

- *Cisco Voice Provisioning Tool User and Phone Management Guide*

This guide provides information on provisioning users, phones, and device profiles for Cisco Unified CallManager and Cisco Unity. The guide is available at [http://www.cisco.com/en/US/products/ps6524/prod\\_maintenance\\_guides\\_list.html](http://www.cisco.com/en/US/products/ps6524/prod_maintenance_guides_list.html).

- *Cisco Unified CallManager Documentation Guide*

Provides a list of Cisco Unified CallManager documents that are available with the release (for example, the 4.1(3) release). The document also provides a URL for each document so that you can locate the document on the web. The guide is available at [http://www.cisco.com/en/US/products/sw/voicesw/ps556/products\\_documentation\\_roadmaps\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps556/products_documentation_roadmaps_list.html).

## Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

### Cisco.com

You can access the most current Cisco documentation at this URL:

<http://www.cisco.com/techsupport>

You can access the Cisco website at this URL:

<http://www.cisco.com>

You can access international Cisco websites at this URL:

[http://www.cisco.com/public/countries\\_languages.shtml](http://www.cisco.com/public/countries_languages.shtml)

### Product Documentation DVD

The Product Documentation DVD is a comprehensive library of technical product documentation on a portable medium. The DVD enables you to access multiple versions of installation, configuration, and command guides for Cisco hardware and software products. With the DVD, you have access to the same HTML documentation that is found on the Cisco website without being connected to the Internet. Certain products also have .PDF versions of the documentation available.

The Product Documentation DVD is available as a single unit or as a subscription. Registered Cisco.com users (Cisco direct customers) can order a Product Documentation DVD (product number DOC-DOCDVD= or DOC-DOCDVD=SUB) from Cisco Marketplace at this URL:

<http://www.cisco.com/go/marketplace/>

### Ordering Documentation

Registered Cisco.com users may order Cisco documentation at the Product Documentation Store in the Cisco Marketplace at this URL:

<http://www.cisco.com/go/marketplace/>

Nonregistered Cisco.com users can order technical documentation from 8:00 a.m. to 5:00 p.m. (0800 to 1700) PDT by calling 1 866 463-3487 in the United States and Canada, or elsewhere by calling 011 408 519-5055. You can also order documentation by e-mail at [tech-doc-store-mkpl@external.cisco.com](mailto:tech-doc-store-mkpl@external.cisco.com) or by fax at 1 408 519-5001 in the United States and Canada, or elsewhere at 011 408 519-5001.

## Documentation Feedback

You can rate and provide feedback about Cisco technical documents by completing the online feedback form that appears with the technical documents on Cisco.com.

You can submit comments about Cisco documentation by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems  
Attn: Customer Document Ordering  
170 West Tasman Drive  
San Jose, CA 95134-9883

We appreciate your comments.

## Cisco Product Security Overview

Cisco provides a free online Security Vulnerability Policy portal at this URL:

[http://www.cisco.com/en/US/products/products\\_security\\_vulnerability\\_policy.html](http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html)

From this site, you will find information about how to:

- Report security vulnerabilities in Cisco products.
- Obtain assistance with security incidents that involve Cisco products.
- Register to receive security information from Cisco.

A current list of security advisories, security notices, and security responses for Cisco products is available at this URL:

<http://www.cisco.com/go/psirt>

To see security advisories, security notices, and security responses as they are updated in real time, you can subscribe to the Product Security Incident Response Team Really Simple Syndication (PSIRT RSS) feed. Information about how to subscribe to the PSIRT RSS feed is found at this URL:

[http://www.cisco.com/en/US/products/products\\_psirt\\_rss\\_feed.html](http://www.cisco.com/en/US/products/products_psirt_rss_feed.html)

## Reporting Security Problems in Cisco Products

Cisco is committed to delivering secure products. We test our products internally before we release them, and we strive to correct all vulnerabilities quickly. If you think that you have identified a vulnerability in a Cisco product, contact PSIRT:

- For Emergencies only—[security-alert@cisco.com](mailto:security-alert@cisco.com)

An emergency is either a condition in which a system is under active attack or a condition for which a severe and urgent security vulnerability should be reported. All other conditions are considered nonemergencies.

- For Nonemergencies—[psirt@cisco.com](mailto:psirt@cisco.com)

In an emergency, you can also reach PSIRT by telephone:

- 1 877 228-7302
- 1 408 525-6532



Tip

We encourage you to use Pretty Good Privacy (PGP) or a compatible product (for example, GnuPG) to encrypt any sensitive information that you send to Cisco. PSIRT can work with information that has been encrypted with PGP versions 2.x through 9.x.

Never use a revoked or an expired encryption key. The correct public key to use in your correspondence with PSIRT is the one linked in the Contact Summary section of the Security Vulnerability Policy page at this URL:

[http://www.cisco.com/en/US/products/products\\_security\\_vulnerability\\_policy.html](http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html)

The link on this page has the current PGP key ID in use.

If you do not have or use PGP, contact PSIRT at the aforementioned e-mail addresses or phone numbers before sending any sensitive material to find other means of encrypting the data.

## Obtaining Technical Assistance

Cisco Technical Support provides 24-hour-a-day award-winning technical assistance. The Cisco Technical Support & Documentation website on Cisco.com features extensive online support resources. In addition, if you have a valid Cisco service contract, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not have a valid Cisco service contract, contact your reseller.

## Cisco Technical Support & Documentation Website

The Cisco Technical Support & Documentation website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The website is available 24 hours a day, at this URL:

<http://www.cisco.com/techsupport>

Access to all tools on the Cisco Technical Support & Documentation website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

<http://tools.cisco.com/RPF/register/register.do>



Note

Use the Cisco Product Identification (CPI) tool to locate your product serial number before submitting a web or phone request for service. You can access the CPI tool from the Cisco Technical Support & Documentation website by clicking the **Tools & Resources** link under Documentation & Tools. Choose **Cisco Product Identification Tool** from the Alphabetical Index drop-down list, or click the **Cisco Product Identification Tool** link under Alerts & RMAs. The CPI tool offers three search options: by product ID or model name; by tree view; or for certain products, by copying and pasting **show** command

output. Search results show an illustration of your product with the serial number label location highlighted. Locate the serial number label on your product and record the information before placing a service call.

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## Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool provides recommended solutions. If your issue is not resolved using the recommended resources, your service request is assigned to a Cisco engineer. The TAC Service Request Tool is located at this URL:

<http://www.cisco.com/techsupport/servicerequest>

For S1 or S2 service requests, or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete list of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/techsupport/contacts>

## Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

**Severity 1 (S1)**—An existing network is down, or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

**Severity 2 (S2)**—Operation of an existing network is severely degraded, or significant aspects of your business operations are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

**Severity 3 (S3)**—Operational performance of the network is impaired, while most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

**Severity 4 (S4)**—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

# Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The *Cisco Product Quick Reference Guide* is a handy, compact reference tool that includes brief product overviews, key features, sample part numbers, and abbreviated technical specifications for many Cisco products that are sold through channel partners. It is updated twice a year and includes the latest Cisco offerings. To order and find out more about the Cisco Product Quick Reference Guide, go to this URL:

<http://www.cisco.com/go/guide>

- Cisco Marketplace provides a variety of Cisco books, reference guides, documentation, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:

<http://www.cisco.com/go/marketplace/>

- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press at this URL:

<http://www.ciscopress.com>

- *Packet* magazine is the Cisco Systems technical user magazine for maximizing Internet and networking investments. Each quarter, Packet delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can access Packet magazine at this URL:

<http://www.cisco.com/packet>

- *iQ Magazine* is the quarterly publication from Cisco Systems designed to help growing companies learn how they can use technology to increase revenue, streamline their business, and expand services. The publication identifies the challenges facing these companies and the technologies to help solve them, using real-world case studies and business strategies to help readers make sound technology investment decisions. You can access iQ Magazine at this URL:

<http://www.cisco.com/go/iqmagazine>

or view the digital edition at this URL:

<http://cisoiq.texterity.com/cisoiq/sample/>

- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:

<http://www.cisco.com/ipj>

- Networking products offered by Cisco Systems, as well as customer support services, can be obtained at this URL:

<http://www.cisco.com/en/US/products/index.html>

- Networking Professionals Connection is an interactive website for networking professionals to share questions, suggestions, and information about networking products and technologies with Cisco experts and other networking professionals. Join a discussion at this URL:

<http://www.cisco.com/discuss/networking>

- World-class networking training is available from Cisco. You can view current offerings at this URL:

<http://www.cisco.com/en/US/learning/index.html>

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