



Release Notes for Cisco Customer Response Solutions 4.5(2)

June 05, 2009

These release notes describe new features, important information, and caveats for Cisco Customer Response Solutions (Cisco CRS) Release 4.5(2).

These release notes may be updated occasionally with new information. For the latest version of these release notes, and for other Cisco CRS documentation, go to this URL:

http://www.cisco.com/en/US/products/sw/custcosw/ps1846/prod_release_notes_list.html



Note

Cisco CRS 4.5(1) documentation applies also to Cisco CRS 4.5(2).

Before you install Cisco CRS, review the “[Important Notes](#)” section on page 10.

For a list of the open and closed caveats for Cisco CRS 4.5(2) see the “[Caveats](#)” section on page 21.



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Introduction

The Cisco CRS platform provides a multimedia (voice, data, and web), IP-enabled customer-care application environment that enhances the efficiency of contact centers by simplifying business integration, easing agent administration, increasing agent flexibility, and enhancing network hosting.

Cisco CRS 4.5(2) provide a variety of new features and functions, including:

- Compatibility with Cisco CallManager 5.0(1).
- Support for up to 300 agents, 32 supervisors, and 300 IVR ports
- Support for SIP agent and SIP supervisor phones
- Enhancements to serviceability
- Support for Secure VNC
- Support for Virtual Agents

Related Documentation

[Table 1](#) provides references to related documentation. In addition, you can obtain online help from the Cisco CRS Administration web pages, the Cisco CRS Editor, the Cisco Agent Desktop, the Cisco Supervisor Desktop, the Cisco Desktop Administrator, and the Cisco CRS Historical Reports client interface.



Note

If a Cisco CRS document is not updated from a previous release of Cisco CRS, that document remains valid for the current release.

Table 1 *Related Documentation*

Related Information and Software	Document or URL
Cisco CRS documentation overview	<i>Cisco Customer Response Applications 4.5 Resources Card</i> in your Cisco CRS product package, and at http://www.cisco.com/application/pdf/en/us/guest/products/ps6879/c1542/ccmigration_09186a008060f18a.pdf
Cisco CRS documentation	http://www.cisco.com/en/US/partner/products/sw/custcosw/ps1846/tsd_products_support_series_home.html
<i>Cisco Customer Response Solutions (CRS) Software and Hardware Compatibility Guide</i>	http://www.cisco.com/en/US/partner/products/sw/custcosw/ps1846/products_documentation_roadmaps_list.html
Cisco voice products documentation	http://www.cisco.com/en/US/products/sw/voicesw/index.html
Operating system documentation	http://www.cisco.com/en/US/products/hw/voiceapp/ps378/prod_installation_guides_list.html
Virtual Network Computing (VNC) documentation	http://www.cisco.com/en/US/products/sw/netmgts/ps2255/index.html
Cisco MCS hardware specifications	http://www.cisco.com/en/US/products/hw/voiceapp/ps378/products_data_sheets_list.html
Cisco CallManager documentation	http://www.cisco.com/en/US/partner/products/sw/voicesw/ps556/tsd_products_support_series_home.html
Backup and restore documentation	http://www.cisco.com/en/US/products/sw/voicesw/ps556/prod_maintenance_guides_list.html

Table 1 *Related Documentation (continued)*

Related Information and Software	Document or URL
Service releases	http://www.cisco.com/kobayashi/sw-center/sw-voice.shtml
Related Cisco IP telephony application documentation	http://www.cisco.com/en/US/partner/products/sw/voicesw/tsd_products_support_category_home.html (see IP Telephony)

Installation Notes

To install Cisco CRS 4.5(2), refer to *Cisco CRS Installation Guide*. In addition, refer to the information in the following sections:

- [Upgrading from Cisco CRS 4.5\(1\) SR1, page 5](#)
- [Upgrading from Cisco CRS 3.5\(x\) if You have a SASU Service, page 9](#)
- Windows 2K3 does not allow more than 15 characters in the machine hostname. Before installing Cisco Unified CCX, please ensure that the machine hostname should not contain more than 15 characters. If the hostname contains more than 15 characters , change it to less than or equal to 15 characters.

Upgrading from Cisco CRS 4.5(1) SR1

To upgrade from Cisco CRS 4.5(1) SR1 to Cisco CRS 4.5(2), perform the procedure in this section.

Before you begin

- Install the current Cisco-provided Windows 2000 Server operating system on the server on which you are upgrading Cisco CRS (if needed).
- Make sure that you have access to the Cisco Backup and Restore System (BARS) release 4.0(9)
- Disable virus scanning and the Cisco Security Agent on the server that you are upgrading.

Guidelines for Upgrading

- If you see a dialog box that contains an error message or that prompts you to perform additional tasks, follow the on-screen prompts to continue. For more information and assistance, see the “Cisco CRS Installer Messages and Log Files” chapter in *Cisco CRS Installation Guide*.
- You do not need to stop Cisco CRS services on servers before you upgrade.
- To minimize interruptions to your call center activities, perform the upgrade procedure at off-peak hours.

Procedure

Step 1 On the Cisco CRS server, log into Windows as the Administrator

Step 2 Insert the Cisco CRS DVD labeled Disk 1.

If the Cisco Customer Response Solutions Installation Wizard does not start automatically, navigate to the root folder on Disk 1 and click **CRSAutorun.exe**.

The Cisco CRS Installer performs a series of checks and processes.

After a few moments, the Welcome window appears.

In addition, a pop-up window displays the following message:

```
**Warning* Disable Cisco Security Agent and virus control software  
before proceeding. These applications can interfere with the Cisco CRS  
Installer procedure that you are performing and can cause the system  
to become unrecoverable.
```

Step 3 Make sure that all virus control software is disabled and click **OK** in the pop-up window.

The Cisco CRS Installer performs a series of pre-installation checks.

Step 4 In the Welcome window, click **Next**.

It may be a few minutes before **Next** becomes available.

The Windows Server Information window appears. This window displays information for your installation.

Step 5 In the Windows Server Information Window:

- a. Enter and confirm the password for the username that you used to log in to this server.
- b. Click **Next**.

The Cluster Profile Selection window appears. This window displays information for your installation. If the information is not correct, contact the Cisco TAC.

Step 6 In the Cluster Profile Selection window, click **Next**.

The Found CRS 4.x window appears.

Step 7 In the Found CRS 4.x window, click **Next**.

The CRS 4.5 Restore tool window appears. You may need to bring this window to the foreground to view it.

Step 8 On the server that you are updating, access the BARS and log into the BARS as an administrator.

To access the BARS, choose **Start > Programs > Cisco BARS > BARS Admin**.

The BARS Administration main page appears.

Step 9 In the BARS Administration main page, choose **Restore > Restore Wizard**.

The BARS Restore Wizard: Step 1 of 4 page appears.

Step 10 In the Restore Wizard: Step 1 of 4 page:

- a. Click the **Local Directory** radio button.
- b. In the Path Name field, enter *drive*\CRSPatch\Cisco\CiscoUpgrade.tar where *drive* is the letter of the drive in which you inserted the Cisco installation disk.
- c. Click **Next**.

The Restore Wizard: Step 2 of 4 page appears.

Step 11 In the Restore Wizard: Step 2 of 4 page:

- a. In the **Data Destination Server** field, enter the IP address or the host name of the server that you are upgrading.
- b. Click **Next**.

The Restore Wizard: Step 3 of 4 page appears.

Step 12 In the Restore Wizard: Step 3 of 4 page:

- a. In the **User Name** field, enter the Windows Administrator user name for the data destination server that you indicated in [Step 11](#).
- b. In the **Password** field, enter the Windows Administrator password for the data destination server that you indicated in [Step 11](#).
- c. Click **Next**.

The Restore Wizard: Step 4 of 4 page appears.

Step 13 In the Restore Wizard: Step 4 of 4 page, click **Restore**.

The restore process begins. The BARS Current Status window displays the status of the extraction of the archive files.

After a few moments, another BARS page displays *Suspending Patch*.

Step 14 When you see *Suspending Patch* in the BARS page, take these actions:

- a. Bring the Ready to Recover the Program window to the foreground.
- b. Click **Recover**.

Step 15 When a pop-up window prompts you to exit Internet Explorer windows, close all Internet Explorer windows and then click **OK**.

The upgrade process continues. A status window displays the status as it proceeds.

When the process is finished, the Installation Wizard Completed window appears.

Step 16 In the Installation Wizard Completed window, click **Finished**.

A pop-up window prompts you to reboot.

Step 17 Click **Yes** to reboot the server.

Step 18 After the server reboots, log back in as the Windows administrator.

Step 19 In the Patch operation is now complete pop-up window, click **OK**.

The upgrade is complete.

Upgrading from Cisco CRS 3.5(x) if You have a SASU Service

If you are upgrading to Cisco CRS 4.5(2) from Cisco CRS 3.5(x) and if you have a Cisco Software Application Support Plus Upgrades (SASU) service, follow the steps in this section to generate your Cisco CRS 4.5(2) licenses.

Procedure

-
- Step 1** Access the Product Upgrade Tool (PUT), which is available to registered Cisco.com users at this URL:
- <http://tools.cisco.com/gct/Upgrade/jsp/index.jsp>
- Step 2** Follow the prompts in the PUT to obtain a Product Activation Key (PAK). Cisco e-mails you the PAK and sends you the CRS 4.5(2) upgrade package, which includes a disk that contains the CRS 3.5 to 4.5 Upgrade License Conversion Tool.
- Step 3** When you receive the PAK, take these actions:
- If you are a registered Cisco Connection Online user, go to this URL:
<https://tools.cisco.com/SWIFT/Licensing/PrivateRegistrationServlet>
If you are not a registered Cisco Connection Online user, go to this URL:
<https://tools.cisco.com/SWIFT/Licensing/RegistrationServlet>
 - Enter your PAK in the **Enter PAK or Software Serial Number** field and click **Submit**.
Cisco validates your order and e-mails the 4.5(2) upgrade license file to you.
 - Save this file on a Cisco CRS 3.5(x) server.
Do not save it in the same directory as the Cisco 3.5(x) license files.
- Step 4** On your Cisco CRS 3.5(x) server, insert the CD that contains the CRS 3.5 to 4.5 Upgrade License Conversion Tool.
- The CRS 3.5 to 4.5 Upgrade License Conversion Tool starts.
- If this tool does not start automatically, navigate to the Upgrade directory on the CD and click **upgrade.bat**.

- Step 5** In the 3.5 to 4.5 License Converter window:
- a. In the 3.5 License Path field, enter the directory that contains your CRS 3.5(x) license files.
The default directory is C:\CRALicense.
 - b. In the Upgrade License File field, enter the name of the CRS 4.5(2) upgrade license file.
 - c. In the Destination Path field, enter the directory in which the Cisco CRS 4.5(2) license files will be saved when they are generated.
Make sure that the 4.5(2) upgrade license file does not exist in the directory that you specify.
If the directory does not exist, the tool will create it. The default directory is C:\CRSLicense_45.
 - d. Click **Convert**.
The tool creates the CRS 4.5(2) license files and saves them in the directory that you specified.
 - e. In the pop-up window that indicates that the license converted successfully, click **OK**.
-

Important Notes

This section provides important information that might have been unavailable upon the initial release of documentation for Cisco CRS 4.5(2).

- **Supported products**—For current information about supported products for Cisco CRS, refer to *Cisco Customer Response Solutions (CRS) Software and Hardware Compatibility Guide*, which is available at this URL:
http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_device_support_tables_list.html
- **Support for new install and upgrade from release 4.5(1) SR1 only**—Cisco CRS 4.5(2) supports a new installation and an upgrade from Cisco CRS release 4.5(1) SR1 only. It does not support upgrading from a other versions of Cisco CRS.

- **Third-party software might affect performance and support**—Adding third-party software to a Cisco CRS system may affect how Cisco CRS functions and may affect Cisco's support for Cisco CRS. Such third-party software includes Microsoft critical security updates, anti-virus software, and other non-required third-party software. Also, make sure to read and accept the license agreement that comes with a third-party product. For information about Cisco's policy regarding third-party software, refer to this URL:
http://www.cisco.com/en/US/products/sw/custcosw/ps1844/prod_bulletins_list.html
- **Policy Changes in New Zealand Daylight Savings Time**—To know about the policy changes in New Zealand daylight savings time and to understand the impact on Unified CCX, refer to the field notice FN - 62880 - New Zealand Daylight Savings Time Policy Changes Effective September 2007 - For Cisco Unified Contact Center Express (Unified CCX), which is available at this URL:
http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_field_notice09186a00808b40b7.shtml
- **Redirection to translation patterns not supported**—CRS does not support the use of consult transfer/redirect step from scripts to a translation pattern that maps back to a route point.
- **NIC Card Binding Order**—Enabling the second NIC and interchanging the binding order of NICs such that the second NIC is first in the binding causes issues such as:
 - Recording Step does not record audio
 - While attempting to reach RTR, Access Denied Error 500 occurs

Work Around

-
- Step 1** Run **PostInstall.exe** (C:\Program Files\Cisco\Desktop\bin\PostInstall.exe) and change the ActiveNIC card and the IP address of the CAD server.
 - Step 2** Change the Node IP address information by running Cisco CRS Serviceability Utility by choosing **Start > Programs > Cisco CRS Administrator > Cisco CRS Serviceability Utility**.
 - Step 3** Run Node manager service.

- **Password aging restrictions**—Password aging is a Microsoft Active Directory feature that you can enable when Cisco CallManager is integrated with Active Directory. Do not enable this feature for any of the “system” Cisco CallManager user accounts, including the JTAPI provider user, the RMJTAPI provider user, or the telecaster user that is associated with the Cisco Desktop IP Phone Agent service. If you enable this feature but do not change the password for one of these Cisco CallManager users before the password expires, the following issues will occur:
 - JTAPI provider user—Calls to Cisco CRS route points will not be processed
 - RMJTAPI provider user—Agents will not be able to login to the Cisco Agent Desktop or the Cisco IP Phone Agent
 - Cisco IP Phone Agent user—Agents will be unable to use the Cisco IP Phone Agent
- **Cold standby support**—Cisco CRS 4.5 supports the use of a cold standby server. For additional information, including set up and configuration instructions, refer to *Cisco IPCC Express Solution Reference Network Design*, which is available at this URL:
www.cisco.com/go/srnd
- **Historical reports might not run when using a proxy service**—If you are using a proxy service in Internet Explorer on the CRS Historical Reports client system, historical reports might not run and you might see this message in the CiscoSch.log file: [CRA_DATABASE] entry not found in the properties file followed by failed to validate user OR get MaxConnections of database value. If this situation occurs but you can run the report directly from the CRS Historical Reports client system, follow these steps:
 - a. From Internet Explorer on the Historical Reports client system, choose **Tools > Internet Options**.
 - b. Click **Connections**.
 - c. Click **LAN Settings**.
 The Use a Proxy Service check box will be checked if you are using a proxy server.
 - d. Click **Advanced**.

- e. In the Do not use proxy server for addresses beginning with field, enter the IP address of the Cisco CRS server that the Historical Reports client system logs in to.
- f. Click **OK** as needed to save your changes.
- **Windows account username must be “Administrator”**—The only supported username for the Windows account on a server that is running Cisco CRS is Administrator. If you use another user name, the CRSAdminUtil.exe tool might not work properly.
- **Microsoft DTC requirements**—The Microsoft Distribution Transaction Coordinator (DTC) requires that your system be able to resolve computer names by NetBIOS or DNS. You can test whether NetBIOS can resolve the names by using ping and the server name. The client computer must be able to resolve the name of the server and the server must be able to resolve the name of the client. If NetBIOS cannot resolve the names, you can add entries to the LMHOSTS files on the computers.

For additional information, refer to article number 250367 in the Microsoft online help and support knowledge base.

- **Cisco CallManager hardening procedure causes Cisco CRS configuration failure**—CRS configuration fails if you perform the Cisco CallManager operating system hardening procedure using the scripts provided in the C:\utils\SecurityTemplate folder. This situation occurs because the scripts disable IIS and Tomcat services on Cisco CallManager subscribers, which affects the subscribers on which CTIManager is running. (These subscribers are designated by the IP address input for the JTAPI provider.)

To workaround this situation, reenable these services on the subscribers.

- **ASR/TTS provider becomes IN-SERVICE prematurely**—If you delete an ASR/TTS provider and all of its associated servers and then create a new ASR/TTS provider, its status might become IN_SERVICE immediately, even before you create any servers for it. In this situation, click **Refresh** for that ASR/TTS provider, or click **Refresh All**. These actions change the status of the ASR/TTS provider to OUT_OF_SERVICE.
- **Custom report fails with the “Invalid name” error**—Attempting to generate a scheduled custom report fails with the error “Invalid name” when the showUserNameOnReport parameter is set to 1 in the Historical Reports hrcConfig.ini file. To work around this problem, add the label @\$UserName

to the .rpt report file that you create with Crystal Reports. To determine where to place this attribute, look at the definition file for any of the Cisco-provided historical reports.

- **Historical Reports Client version must match Cisco CRS version**—If you are using Cisco CRS Historical Reports client software, it must be the same version as the version of Cisco CRS that you are running.
- **High CPU use on MCS-7835 3.4 Ghz IBM and MCS-7845 3.4 Ghz IBM servers**—To help conserve CPU resources on an MCS-7835 3.4 Ghz IBM server or an MCS-7845 3.4 Ghz IBM server, take these actions:
 - Rename the process C:\Program Files\IBM\Director\bin\pegsunprv.exe to C:\Program Files\IBM\Director\bin\pegsunprvOLD.exe
 - Rename the process C:\Program Files\IBM\Director\cimom\bin\Pegasus Provider Adapter.exe to C:\Program Files\IBM\Director\cimom\bin\Pegasus Provider AdapterOLD.exe
 - Disable the service IBM Director Support Program from the Windows Services window.

Reboot the server after you make these changes.

- **Upgrading Cisco CRS Database to MS SQL Server 2000**—To upgrade the Cisco CRS database type from MSDE 2000 to MS SQL Server 2000, refer to the *MS SQL Server 2000 for Cisco CRS* Resources Card. User data that is stored in the Cisco CRS database is preserved when you upgrade the database type.
- **SQL with Mixed Mode Authentication**—Cisco CRS does not support the use of Mixed Mode authentication for internal SQL with MSDE or SQL 2000.
- **Limit on built-in digit grammar**—The limit on the built-in digit grammar that is used in the Cisco CRS Step Editor is determined by the recognition software that you obtain from your MRCP vendor. To determine this limit, refer to your MRCP documentation.
- **Requirements for location of Cisco CRS Engine and Database components**—The Cisco CRS Engine and Database components, in deployments with or without high availability, must be located in the same campus LAN and the round-trip delay between these servers should be less than 2 ms. The links between these servers must be highly available and the available bandwidth should always be considerably higher than the load, and there should be no steady-state congestion.

- **Conference Restriction for virtual agent**—A virtual agent cannot use the Conference feature on the Cisco Unified IP Phone 7970.
- **Configuring call forwarding for route points if Cisco CRS is down**—If you need to change the call forwarding configuration for route points when Cisco CRS is not operating, use the Forward No Answer option in Cisco CallManager administration.
- **Operating System Language Supported on the Cisco CRS Historical Reports client**—The Cisco CRS Historical Reporting client supports the following operating system languages, which you configure by choosing **Start > Settings > Control Panel > Regional Options**:
 - de_DE (German)
 - en_US (United States English)
 - es_ES (Colombian Spanish)
 - fr_FR (French)
 - it_IT (Italian)
 - ja_JP (Japanese)
 - zh_CN (Simplified Chinese)
- **End points not supported in hunt groups**—Do not assign agent phones, CTI ports, or route points that are used by Cisco CRS to hunt groups.

Unsupported Configurations for Cisco CRS

Cisco CRS 4.5(2) does not support the following configurations:

- Shared lines for CTI ports and for CTI route points.
- High availability servers.
- Expansion servers, except for optional automatic speech recognition (ASR) or text-to-speech (TTS), which must be separate, dedicated servers.

Unsupported and Supported Actions for Cisco IPCC Express Agents

This section outlines the unsupported and supported actions for agents using the Cisco Agent Desktop or the Cisco IP Phone Agent Service. Agents can access similar information in the Cisco Agent Desktop online help.

Unsupported Actions for Cisco IPCC Express Agents

Use of the following softkeys on a Cisco IP Phone is not supported:

- **Barge**
- **cBarge**
- **DirTrfr**
- **GPickup**
- **iDivert**
- **Join**
- **MeetMe**
- **Park**
- **Pickup**

Supported Configurations for Agent Phones

To determine the phone devices that supported by the Cisco Agent Desktop and for use by Cisco IP Phone Agents, refer to *Cisco Customer Response Solutions (CRS) Software and Hardware Compatibility Guide*, which is available at this URL:

http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_device_support_tables_list.html

- An IPCC Express extension configured on a single device (but not on multiple devices).

- An IPCC Express extension configured in a single device profile (but not in multiple device profiles).
- Multiple agents sharing the same IPCC Express extension, which you can set up as follows:
 - a. Configure the IPCC Express extension on a single phone (not in a device profile).
 - b. Associate that phone with each agent who will use that extension.
 - c. Select the appropriate directory number (DN) as the IPCC Express extension for each agent.

In this configuration, only one agent at a time can be logged in.



Note

All agents that currently have the IPCC Express extension to be shared must log out before you can configure additional agents to share that extension.

Unsupported Configurations for Agent Phones

The following configurations are not supported for agent phones:

- Two lines on an agent's phone that have the same extension but exist in different partitions.
- An IPCC Express extension assigned to multiple devices.
- Configuring the same IPCC Express extension in more than one device profile, or configuring the same IPCC Express extension in any combination of device profiles and devices. (Configuring an IPCC Express extension in a single device profile is supported.)
- In the Cisco CallManager Administration Directory Number Configuration web page for each IPCC Express line, setting Maximum Number of Calls to a value other than 2.
- In the Cisco CallManager Administration Directory Number Configuration web page for each IPCC Express line, setting Busy Trigger to a value other than 1.
- Configuring a Cisco IP Phone with Secure Real-Time Protocol (SRTP) on.

- No Cisco Call Manager device can be forwarded to the IPCC Express extension of an agent.
- The IPCC Express extension of an agent cannot be configured to forward to a Cisco CRS route point.
- Use of characters other than the numerals 0–9 in the IPCC Express extension of an agent.

Unsupported Features in Cisco CallManager

The following Cisco CallManager features are not supported by Cisco CRS 4.5(2). These features are disabled by default and should not be enabled for Cisco CRS. For more information about these features, refer to the Cisco CallManager documentation.

- Block External to External Transfer.
- Drop Adhoc Conference When Creator Leaves.
- Q Signalling (QSIG) Path Replacement (PR).

This feature must be disabled when Cisco CRS is deployed. To disable this feature, set the Cisco CallManager service parameters Path Replacement Enabled and Path Replacement on Tromboned Calls to False.

- Forced Authorization Code and Client Matter Code.

Because these feature can be enabled per route pattern, they should be turned off for all route patterns in the Cisco CallManager cluster that Cisco CRS might use. Enabling these features for route patterns that Cisco CRS does not use will not affect Cisco CRS.

- Multilevel precedence and preemption (MLPP).

You can enable this feature for devices in the Cisco CallManager cluster that do not interact with Cisco CRS.

In addition, do not use Cisco CallManager Administration to add or change CTI ports or route points that are used by Cisco CRS.

Contact Dispositions in Cisco CRS Real-Time Reports and Historical Reports

The following notes help clarify information regarding contact dispositions on various Cisco CRS real-time reports and historical reports.

- Many real-time and historical reports show the disposition of a call. The Contact Service Queue Activity Report (by CSQ or by Interval) shows calls as Handled, Abandoned, and Dequeued. The Contact Service Queue Activity Report shows calls as Handled, Abandoned, Dequeued, and Handled by Other.
- A contact that is queued and answered by an agent shows as handled in real-time and in historical reports.
- A contact that is queued but abandoned before it is answered by an agent is shown as handled in the Overall IPCC Express Stats real-time report if a SetContactInfo step in the workflow marks the call as handled. The call is shown as abandoned otherwise. The CSQ IPCC Express Stats real-time report shows the call as abandoned in both cases because it does not consider the SetContactInfo step.

For more information about the SetContactInfo step, refer to *Cisco CRS Scripting and Development Series: Volume 2, Editor Step Reference Guide*.

- The historical CSQ reports take into account whether a contact is marked as handled by the SetContactInfo step to determine if a contact is dequeued. The CSQ IP IPCC Express Stats report does not consider the SetContactInfo step. Therefore, if a call is queued, then marked as handled, and then disconnects, the historical CSQ reports shows the call as dequeued on the CSQ Activity Report (by CSQ or by Interval) or as Handled by Other (handled by workflow script) on the CSQ Activity Report. The real-time CSQ IPCC Express Stats report shows it as abandoned.
- If the Dequeue step is used, the CSQ historical reports shows a contact as dequeued on the CSQ Activity Report (by CSQ or by Interval) or as Handled by Other (handled by another CSQ, in this case) on CSQ Activity Report, but only if the contact is marked as handled. If a call is dequeued (by the Dequeue step), and then disconnects without being marked handled, the CSQ historical reports shows the contact as abandoned.

- If a call is dequeued using the Dequeue step and the caller drops, the CSQ IPCC Express Stats real-time report shows the call as dequeued. If a call is dequeued from CSQ1 and is eventually handled by CSQ2, the CSQ IPCC Express Stats report shows the call as dequeued for CSQ1 and handled for CSQ2. If a call is queued on multiple CSQs and is eventually handled by CSQ1, the CSQ IPCC Express Stats report shows the call as handled for CSQ1 and dequeued for all other CSQs.

Adding a 15-Minute Interval Length to a Cisco CRS Historical Report Filter Parameter

The following Cisco CRS historical reports provide filter parameters that let you display information for 30-minute intervals or for 60 minute intervals within the report period.

- Contact Service Queue Activity Report (by CSQ)
- Contact Service Queue Activity Report (by Interval)
- Agent State Summary Report (by Agent)
- Agent State Summary Report (by Interval)
- Common Skill Contact Service Queue Activity Report (by Interval)

You can add a filter parameter that lets you display information for 15-minute intervals during the report period. To do so, follow these steps:

Procedure

- Step 1** Locate the report definition file for the report that you want to update and make a backup copy of this file.

Report definition files have descriptive names and are located in the following folder under the folder in which you installed the Cisco CRS Historical Report client system. (By default, the client system installs in the Program Files directory.)

Cisco CRS Historical Reports\ReportTemplates\Language

For example, the report definition file for the U.S. English version of the Contact Service Queue Activity Report (by Interval) report is named:

ICD_Contact_Service_Queue_Activity_by_Interval_en_us.xml

By default, this file is located in this directory:

C:\Program Files\Cisco CRS Historical Reports\ReportTemplates\EN_us

Step 2 Use a Windows text editor to open the report definition file for the report that you want to update.

Step 3 In the report definition file, locate this line:

```
<ListOption OptionSelected="True" OptionValue="0">Entire report range</ListOption>
```

Step 4 Insert this line immediately after the line that you located:

```
<ListOption OptionSelected="False" OptionValue="15">Fifteen (15) minutes</ListOption>
```

Now there is a series of lines in the file that looks like this:

```
<ListOption OptionSelected="True" OptionValue="0">Entire report range</ListOption>
<ListOption OptionSelected="False" OptionValue="15">Fifteen (15) minutes</ListOption>
<ListOption OptionSelected="False" OptionValue="30">Thirty (30) minutes</ListOption>
<ListOption OptionSelected="False" OptionValue="60">Sixty (60) minutes</ListOption>
```

Step 5 Save your changes and exit the text editor.

A new option for the Interval Length filter parameter is available for the report that you updated. The new option lets you designate a 15-minute interval for the report.

Caveats

This section includes the following topics:

- [Using Bug Toolkit, page 22](#)
- [Known Limitation\(s\), page 23](#)
- [Resolved Caveats, page 24](#)
- [Open Caveats, page 25](#)
- [Closed Caveats, page 28](#)

Using Bug Toolkit

If you are a registered Cisco.com user, you can find the latest information about resolved, open, and closed caveats for Cisco CRS by using Bug Toolkit, an online tool that allows you to query caveats according to your own needs. By using Bug Toolkit, you can find caveats of any severity for any release. Bug Toolkit may also provide a more current listing than this document provides.

To access Bug Toolkit, you need:

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

To use Bug Toolkit, follow these steps:

Procedure

- Step 1** Go to this URL to access the Bug Toolkit:
<http://tools.cisco.com/Support/BugToolKit/action.do?hdnAction=searchBugs>
- Step 2** Log on with your Cisco.com user ID and password.
- Step 3** To access Cisco CRS caveats, take either of these actions:
- To access a particular caveat when you know its identifier, enter the identifier in the Search for Bug ID field and click **Go**.
 - To access all caveats, follow these steps:
 - a. From the Select Product Category list, choose **Voice and Unified Communications**.
 - b. From the Select Product list, choose **Cisco Unified Contact Center Express**.
 - c. From the Software Versions drop-down list, choose the desired Cisco CRS release.
 - d. Click the desired Advanced Options radio button
If you choose custom settings, enter appropriate custom information.
 - e. Click **Search**.

A list of caveats that match your search criteria appear. To see details about any caveat, click its Bug ID number or click its **Info** link.

Known Limitation(s)

Limitation 1

Identifier	Headline
CSCsz58742	Need to prevent scripts from being loaded when mem too high.

Problem

When there are a large number of applications configured, the engine runs out memory at or soon after startup. This is likely when there is a configuration such as the same script being used with many different applications, each with a separate trigger. This is due to the script being loaded into memory for each application configured.

Workaround

It is recommended that if such a scenario exists, the scripting features of reading application parameters from a common store, such as an XML file are used to configure a single application with that script, and associate multiple triggers to that single application. This will cause the script to only be loaded into memory once, greatly reducing memory usage.

For details, refer to the online record for the defect, *CSCsz58742*, using Bug Toolkit. This issue will be resolved in a future release or SR.

Resolved Caveats

Table 3 lists Severity 1, 2, and 3 defects that are open in this release of Cisco CRS.

For more information about an individual defect, you can access the online record for the defect by clicking the Identifier or going to the URL shown. You must be a registered Cisco.com user to access this online information.

Because defect status continually changes, be aware that 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 as described in the “Using Bug Toolkit” section on page 22.

Table 2 Resolved Caveats

Identifier	Summary and Bug Toolkit Link
CSCsc33232	Opening a page from Document Management page logs the user out
CSCsc52284	Cisco CRS Update Tool message box warning about Cisco Security Agent and virus scan must appear sooner
CSCsc94921	Misleading license upload message with invalid license
CSCsc97488	Historical Report (Agent Not Ready) has English and formatting errors in French
CSCsd00066	Historical Report (Agent Not Ready) has English and formatting errors in Italian
CSCsd12948	Real-time Report displays incorrect error message when clicking Reset All Stats
CSCsd15986	HISTORICAL_DB_WRITE_FAILED, cannot insert duplicate key in object Agent
CSCsd17759	Inadequate feedback to administrator when LDAP mutex lock fails
CSCsd26855	Historical Reporting client login will fail with a bad user ID/password
CSCsd30475	JVM.log > 4 GB crashes IP-IVR
CSCsd31591	Aborted call due to unhold fails when caller completes the transfer to contact service queue
CSCsd34139	Agent leaves Talking state after CTI port drops out
CSCsd38512	ACDR with no matching CCCR for out of system then back in transfer
CSCsd39464	Database version gets rest if BARS staging directory was deleted incorrectly

Table 2 *Resolved Caveats (continued)*

Identifier	Summary and Bug Toolkit Link
CSCsd39670	Clarify the suspend message in BARS Administration that tells user to run Installer
CSCsd42605	User Management page, a Cisco CallManager user is gone if assigned/unassigned with unchecked checkbox
CSCsd42652	At cluster setup, Back button on Licence Information page does not go back to Administration setup page
CSCsd45900	Add defensive check on Cisco CRS 4.5 Installer to prevent upgrade from CRS 4.0 to 4.5
CSCsd47860	Incorrect use of free in LaunchAppAdmin
CSCsd49923	CRSInstallUtils.dll to be bundled in Historical Reporting client installer
CSCsd50411	Unexpected reboot during upgrade from CRS 4.5(1) SR1 to 4.5(2.015)
CSCsd50939	IPCC Express Agents are available, but calls are not being presented

Open Caveats

[Table 3](#) lists Severity 1, 2, and 3 defects that are open in this release of Cisco CRS.

For more information about an individual defect, you can access the online record for the defect by clicking the Identifier or going to the URL shown. You must be a registered Cisco.com user to access this online information.

Because defect status continually changes, be aware that [Table 3](#) 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 as described in the [“Using Bug Toolkit” section on page 22](#).

Table 3 *Open Caveats*

Identifier	Summary and Bug Toolkit Link
CSCeg65794	en_US must populate default directory prompts, grammars, documents
CSCsa75270	Color code in historical reporting in not translated in specific languages
CSCsa83464	Non-SSML non-ASCII characters not played correctly
CSCsa93396	LDAPs in cluster are out of synch after repair operation

Table 3 *Open Caveats (continued)*

Identifier	Summary and Bug Toolkit Link
CSCsa93645	CRS and PG SNMP infrastructure not compatible
CSCsb28663	Agent logged in even when requests to cancel login
CSCsb85383	CRS Application Administration errors in handling certain localized characters
CSCsc32075	Desktop monitoring / recording sessions should not stop if Voice over IP Monitor server goes down
CSCsc36983	Database mismatch during upgrade on remote database machines
CSCsc50631	4.x fresh install & upgrade, the Historical license and recording count are incorrect
CSCsc54555	ICM SNMP is disabled when a 7.0 PG is installed on a CRS server
CSCsc65438	Unable to change from G.729 to G.711 by reinstalling
CSCsc73551	JTAPI synch did not synch group that has multiple device pools correctly
CSCsc74546	Change Agent state to Not Ready if x transfers to this agent fails
CSCsc74580	Cannot hang up consult call from Cisco Agent Desktop after completexfer fails
CSCsc74588	Do not dismiss Reason code dialog auto if agent is trying to logoff
CSCsc75730	Workflow cannot pop up URL in Embedded browser if datafield has no parameter
CSCsc79495	Cisco Agent Desktop receives error message when agent cancels a conference call
CSCsc85283	JCUpdateInstall displays: The account name field cannot be left blank
CSCsc90176	IVR languages are not updated after reinstall
CSCsc94921	Misleading license upload message with invalid license
CSCsc97172	Error message incorrect when Cisco Agent Desktop logs in with line/device restricted
CSCsc97488	Historical report (Agent Not Ready) has English and formatting errors in French
CSCsd00066	Historical report (Agent Not Ready) has English and formatting errors in Italian
CSCsd10114	Check the database edition in the beginning of the recovery and pop up the error
CSCsd10575	Call stuck in queue, agent in Reserved state - provider out of service- in service
CSCsd12948	RTR displays incorrect error message on clicking Reset All Stats

Table 3 *Open Caveats (continued)*

Identifier	Summary and Bug Toolkit Link
CSCsd15986	HISTORICAL_DB_WRITE_FAILED, cannot insert duplicate key in object Agent
CSCsd17190	Alerting name ASCII for CTI port group has improper config behavior
CSCsd17277	Issues found during Cisco Agent Desktop and Cisco Desktop Administration localization testing
CSCsd17681	Unable to upgrade to build 4.5(1) - cluster lock error
CSCsd17759	Inadequate feedback to administrator when LDAP mutex lock fails
CSCsd18349	Cisco CRS Application Administration login fails due to unhandled AXL Exception in log in page
CSCsd18435	Editor: Need the ability to trigger an application from a script
CSCsd23280	application.MIVR.properties is not created in LDAP cluster profile
CSCsd23280	application.MIVR.properties is not created in LDAP cluster profile
CSCsd24070	Remove RMI port reference from SysParamsConfig
CSCsd25661	VOIP Monitor and JTAPI Subsystems do not send Module RunTimeFailure traps
CSCsd26836	CRS could not load skill 11 because skill 11 was inactive/deleted
CSCsd26855	Historical Reporting Client login will fail with a bad user ID/password
CSCsd28113	CRS 4.5(1) mutex failure when adding CTI ports
CSCsd29316	Changing profile during install causes Update Tool error
CSCsd30475	JVM.log > 4 GB crashes IP-IVR
CSCsd30669	CRS 4.5—ASR calls aborted with speech too early exception
CSCsd32598	PlatformExceptionImpl: Could not meet post conditions of call.transfer
CSCsd36532	Missing abandon calls, Real-Time Reporting and Historical Reports mismatch
CSCsd36546	GetUserInfo step enhancement request
CSCsd36626	Transfer softkey shown when initiating conference with CAD
CSCsd36648	Consult transfer to IVR problems
CSCsd37644	The Close/Exit options in Patch Installer dialogs must be disabled
CSCsd38839	Application exception if agent picks up just when RNA timer expires
CSCsd42186	Incorrect CCD and CRD record linkage

Table 3 Open Caveats (continued)

Identifier	Summary and Bug Toolkit Link
CSCsd44298	GetRptStats—oldest in queue for overall reports does not get updated
CSCsd45733	Editor should not tell user whether authorization code is correct
CSCsd46895	Supervisor login failure error was received from the LDAP server
CSCsd46934	Agent could not transfer ACD call using CAD transfer dialog box
CSCsd47067	Terminal not closed when agent logs out of CAD
CSCsd47342	Changed Cisco CallManager during cluster setup created Cisco CRS Application Administration menu with empty content
CSCsd47368	After changing Cisco CallManager cluster twice, user management page generates configuration error
CSCsd50349	Cisco CRS Application Administration can be logged in by wrong user ID or wrong password
CSCsd54210	CRA 4.0 call stuck in queue using Call Consult Transfer step
CSCsk15778	Current CRS time in Real-Time Reporting is not changing for NZ DST

Closed Caveats

Table 4 lists Severity 1, 2, and 3 defects that are closed in this release of Cisco CRS.

For more information about an individual defect, you can access the online record for the defect by clicking the Identifier or going to the URL shown. You must be a registered Cisco.com user to access this online information.

Because defect status continually changes, be aware that Table 4 reflects a snapshot of the defects that were closed at the time this report was compiled. For an updated view of closed defects, access Bug Toolkit as described in the “Using Bug Toolkit” section on page 22.

Table 4 Closed Caveats

Identifier	Headline and Bug Toolkit Link
CSCe90780	Supervisor cannot stop recording an agent call—specific scenario
CSCeg36638	Cluster time synch fails if time difference is greater than 1000 seconds

Table 4 *Closed Caveats (continued)*

Identifier	Headline and Bug Toolkit Link
CSCsa94199	After failover, Agent A is displayed with a conference icon (Outbound) http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsa94199
CSCsb15899	Remove LDAP logging references from CRS logs
CSCsb20378	Spanish Historical Reporting client date selection shows Today, must be translated
CSCsb76338	AAR upload: CRS Application Administration will return error if the application exists
CSCsb84230	Add more checking as part of CRS Installer logic
CSCsc13145	Reports cannot print in colors
CSCsc13618	Historical Reporting Client Startup menu is in English and should be localized
CSCsc14521	Historical Reporting Client Chinese text truncated
CSCsc14568	Historical Reporting German: Miscellaneous cosmetics issues on Historical Reporting Client Main Screen
CSCsc14580	Historical Reporting German: Historical Reporting Client Open File dialog box not localized
CSCsc14863	German localization: Miscellaneous translation issues on Scheduled Report Page
CSCsc67557	CRS Application Administration blanks out (page not found) when deleting CTI port group
CSCsc91317	Historical Reporting system test with aborted/rejected calls
CSCsd86588	CSQ SLA report chart bar has percentage greater than 100

Documentation Updates

The following sections provide documentation changes that were unavailable when the Cisco CRS 4.5(2) documentation was released:

- [Documentation Updates for Cisco Customer Response Solutions Administration Guide, page 30](#)
- [Documentation Updates for Cisco CRS Installation Guide, page 33](#)

- [Documentation Updates for Cisco CRS Historical Reports User Guide, page 34](#)
- [Documentation Updates for Cisco Customer Response Solutions Historical Reporting Administrator and Developer Guide, page 35](#)
- [Documentation Updates for Cisco CRS Scripting and Development Series: Volume 1, Getting Started with Scripts, page 36](#)
- [Documentation Updates for Cisco CRS Scripting and Development Series: Volume 2, Editor Step Reference, page 38](#)
- [Documentation Updates for Backup and Restore System for Cisco CRS 4.5, page 38](#)
- [Documentation Updates for Cisco Customer Response Solutions Servicing and Troubleshooting Guide, page 39](#)

Documentation Updates for *Cisco Customer Response Solutions Administration Guide*

- The following update applies to the “Provisioning Additional Subsystems” chapter:

In the “Defining an ODBC Data Source” section, the Note in Step 7 which currently reads as ‘When you want the workflow application script to read information from the db_cra CRS database, then select the **Windows NT** radio button as the authentication mode in a separate DSN. This choice provides read-only access to the db_cra database.’ should be replaced with “CRS does not support configuring CRS and CCM databases as Enterprise DB servers.”

Other updates include:

- [ICD Extension Option not Available, page 31](#)
- [Remote Monitor Hyperlink Availability, page 31](#)
- [Assigning Unified CM Users as Cisco TelePresence Virtual Agents, page 31](#)
- [Uploading Prompts, page 33](#)

ICD Extension Option not Available

The following note should be added to the “Assigning ICD Extensions to Agents” section in the “Configuring Cisco CallManager for Cisco CRA” chapter:

Note: If the ICD Extension Option is not available in the End User Configuration page in Cisco CallManager, the IPCC Express tag in System Parameters might be set to False. To set it to True, you must reload the Cisco CRS license. For instructions, refer to *Update the License Count for CRS Version 4*, which is available at this URL:

http://www.cisco.com/en/US/partner/products/sw/custcosw/ps1846/products_tech_note09186a0080542d86.shtml

Remote Monitor Hyperlink Availability

The “Assigning Resources and CSQs to a Supervisor” section in *Cisco CRS Administration Guide* states that the Remote Monitor hyperlink is available only if you are using Cisco IPCC Express Enhanced or Premium license packages.

This statement should say that the Remote Monitor hyperlink is available only if you are using the Cisco IPCC Express Premium license package.

Assigning Unified CM Users as Cisco TelePresence Virtual Agents

The Cisco TelePresence application enables enterprises to create a live, face-to-face interaction with customers over the network. This solution allows rapid deployment of a virtual contact center infrastructure. Agents using Cisco TelePresence are referred to as virtual agents in this guide. Virtual agents connect to callers using Cisco IPCC Express thus incorporating ACD, CAD, CTI, and Unified IP IVR with Cisco Unified CM and providing the entire solution on one server.



Note

For more information on the Cisco TelePresence solution, see <http://www.cisco.com/en/US/products/ps7060/index.html>.

The following guidelines apply for the Cisco TelePresence integration with Cisco IPCC Express:

- The only commonly-supported CODEC for Cisco IPCC Express and Cisco TelePresence is G711.
- The following supervisor features are not supported:
 - Monitoring and recording is not supported for Cisco TelePresence integration with Cisco IPCC Express.
 - Due to the unavailability of third-party call control, Cisco Supervisor Desktop (CSD) features, barge-in, and intercept are not supported.
- You will not be able to use the call control Cisco Agent Desktop (CAD) features (hold, unhold, answer, transfer, conference, Make Call, and touch tone). Be sure to remove or disable these features from CAD as specified in [Step 4](#) in the following procedure.

To assign Unified CM users as virtual agents, follow this procedure:

Step 1 Identify the required Cisco TelePresence system that should participate as a virtual agent in the Cisco IPCC Express application.

- a. Note the Unified CM extension of the Cisco TelePresence deployment.



Note The Cisco Unified IP Phone 7970G and Cisco TelePresence system must be assigned the same extension in Unified CM as they both share the same line.

- b. Note the MAC address or the Directory Number of the Cisco Unified IP Phone 7970G connected to the identified Cisco TelePresence system.



Tip From the Cisco CRS perspective, this is another SIP end point.

Step 2 Associate the Cisco Unified IP Phone 7970G with the Unified CM user to configure this user as a virtual agent.

Step 3 Associate the Cisco Unified IP Phone 7970G with the RmCm provider.

Step 4 Customize the Cisco Agent Desktop workflow groups (see *Cisco Desktop Administrator Users Guide*).

**Tip**

All the Cisco Agent Desktop call control buttons must be disabled as third-party call control will not be available for the Cisco TelePresence integration with Cisco IPCC Express.

Uploading Prompts

- The following note applies to the “Managing Prompts, Grammars, Documents, and Custom Files” chapter in *Cisco CRS Administration Guide*:
If you receive the error “The page cannot be displayed” in Cisco CRS Administration when trying to upload a large prompt .wav file, manually move the file to the repository to resolve the issue.
- The following note applies to the “Prompt Management” section in the “The Applications Menu” chapter in *Cisco CRS Administration Guide*:

Note: You can use a custom script or the Cisco CRS Administration to upload a prompt.

Documentation Updates for *Cisco CRS Installation Guide*

- The following update applies to the “Patching Cisco CRS” chapter:
 - In the “Before You Begin” section, include this as the first bullet:
Restart/Reboot the Cisco CRS server on which you want to install the patch.
 - In the “Before You Begin” section, replace the third bullet with the following two bullets:

- Original Text:** Make sure that a copy of the patch archive file that you are installing or uninstalling exists on the Cisco CRS Server.
- New / Updated Text:**
- Make sure that the D: drive on the Cisco CRS server is formatted.
 - Make sure a copy of the patch archive file exists on the D: drive of the Cisco CRS server.

Documentation Updates for *Cisco CRS Historical Reports User Guide*

- The following change applies to the “The hrcConfig.ini Configuration File” section:

To change the defaultExportPath parameter in the hrcConfig.ini configuration file for the Cisco CRS Historical Reports Client, follow these guidelines:

- Make sure that the new directory exists on the shared drive.
- Enclose the new path in quotation marks. For example:

```
defaultExportPath="\\209.165.200.225\F$\CRS_REPORTS"
```

- The following change applies to the “Specifying a Filter Parameter” section:
In Step 5, the operators AND and OR are dimmed and are not available for selection. These operators are legacy choices from Cisco CRS 3.5 and are no longer needed.

Documentation Updates for *Cisco Customer Response Solutions Historical Reporting Administrator and Developer Guide*

The following updates apply to *Cisco Customer Response Solutions Historical Reporting Administrator and Developer Guide*:

- The description of the Total Incoming Calls field in the “Traffic Analysis Report” section in the “Historical Reports Query Designs” chapter should say:

For each day, count the number of CCD records with a unique sessionID with the contactType field set to any value.

- The following change applies to the “Frequently Asked Questions” chapter:
In the following scenarios, more than one record can have the same Node ID, Session ID, and Sequence No:
 - A call is conferenced to a CTI route point
 - A call goes RNA (ring no answer) to an agent.

- The following steps replace the current Step 4 through Step 8 in the answer to “Is there a way to report on menu choices?” in the “Frequently Asked Questions” section:

New Step 4: Define a Menu step that has three branches and place a Set Enterprise Call Info step in each branch.

New Step 5: In the General tab of the Set Enterprise Call Info step, click **Add**.

New Step 6: In the branch for caller-choice 1, enter **1** in the Value field, and choose **Call.PeripheralVariable1** from the Name drop-down list.

New Step 7: In the branch for caller-choice 2, enter **2** in the Value field, and choose **Call.PeripheralVariable2** from the Name drop-down list.

New Step 8: In the branch for caller-choice 3, enter **3** in the Value field, and choose **Call.PeripheralVariable3** from the Name drop-down list.

- The following information applies to a new “Agent Call Summary Report” section in the “Frequently Asked Questions” chapter:

Q: In the Agent Call Summary Report, Are the ACD Transfer-In and ACD Transfer-Out calls included in the Inbound ACD-Total or the Outbound-Total values?

A: These calls are included in the Inbound ACD-Total value.

Q: In the Agent Call Summary Report, why is the total number of inbound calls different than the number calls handled on the CSQ Activity Report (by CSQ)?

A: The number of calls can differ for these reasons:

- The Agent Call Summary Report shows calls that are presented to agents and the CSQ Activity Report shows calls that are presented to CSQs. If there are agents included in the Agent Call Summary Report who do not belong to CSQs in the CSQ Activity Report, the Agent Call Summary Report shows more calls.
- If agent based routing configured, calls can go to agents directly, without going through a CSQ. In this case, the Agent Call Summary Report shows more calls.
- The Agent Call Summary Report can include transferred ACD calls. For example, assume that a call is queued for CSQ1 and is then handled by Agent1. Agent1 then transfers the call to Agent2 (without going through a CSQ). In this case, one call is shown as handled on the CSQ Activity Report (through CSQ1 by Agent1). The same is shown twice on Agent Call Summary Report: one as handled by Agent1 (through CSQ1), another as handled by Agent2 (not through a CSQ but as a direct transfer from Agent2).
- The following note applies to the “How can a report on reason codes be generated?” question in the “Frequently Asked Questions” chapter:

Note: Not Ready codes are system wide and cannot be configured to be hidden from certain agents.

Documentation Updates for *Cisco CRS Scripting and Development Series: Volume 1, Getting Started with Scripts*

The following updates apply to *Cisco CRS Scripting and Development Series: Volume 1, Getting Started with Scripts*:

- *Cisco CRS Scripting and Development Series: Volume 1, Getting Started with Scripts* describes the “com.cisco.dtmf.termlength” property. However, Cisco CRS does not support this property.

- The following information applies when you use the Place Call Step as described in the “Working with Multiple Contacts” chapter:

If the RNA timeout in the script is longer than the CFNA timer of Cisco CallManager, the agent phone goes to Not Ready state after a ring-no-answer. To resolve this issue, change the timeout value in the script to a lower than the CFNA in Cisco CallManager.

- The following information applies to the description of the Call Redirect Step in the “Designing an IP IVR Script” chapter:

Adding a 2 second delay is a best practice when you have a script that performs a transfer or redirect to another script. Without the delay, there will be a timing issue. When a transfer or redirect occurs, a call leg is initiated. If the transfer or redirect completes and then another transfer or redirect occurs, the call leg from the second transfer or redirect can get stuck. In this case, the second transfer or redirect fails. Adding a delay ensures that the second transfer or redirect leg can complete before continuing through the script.

- The following information applies in a Cisco CRS deployment with high availability when you develop a script that references XML applications:

The XML files must be stored on both the active and the standby server and in the same location (path name and folder name) on each server. The XML files are not automatically replicated between servers. Any changes must be made to the files on both servers. Alternatively, you may use the Document Management utility, which does provide replication between servers when the servers are synchronized.

- The following update applies to the “Built-in Type Implementation” section in the “VoiceXML Implementation for Cisco Voice Browser” appendix:

The statement that parameterization of built-in types is not implemented is not correct. Parameterization of built-in types is implemented.

Documentation Updates for *Cisco CRS Scripting and Development Series: Volume 2, Editor Step Reference*

The following updates apply to the description of the Start Monitor Step in *Cisco CRS Scripting and Development Series: Volume 2, Editor Step Reference*:

- After you select the CSQs to be monitored by a supervisor, log in to the CRS Supervision page as the Remote Monitoring Supervisor. Click the **View CSQs** link to display list of CSQs that are being monitored by this supervisor. The CSQ ID column shows the ID value that you should enter for the CSQ that you selected in the Start Monitor Step.
- You should not pass more than 40 characters in a call variable that is used in the Set Enterprise Call Info step because the database in which the call variables are stored limits the length of the call variables to 40 characters each.

Though the number of characters that you can pass in a custom call variable of the Set Enterprise Call Info Step is unlimited, if you include more than 40 characters, the extra characters are lost when the variables are stored in the database. In this case, reports will not contain that additional information.

Documentation Updates for *Backup and Restore System for Cisco CRS 4.5*

The following information should be added to the list of backup error messages in the “BARS Error Messages” appendix:

Message: C Drive does not have enough space for staging tar archive.

Reason: Cisco Security Agent (CSA) is running.

Corrective Action: Before initiating a backup, disable the CSA on the computer on which BARS is running. Make sure to enable the CSA after the backup completes.

Documentation Updates for Cisco Customer Response Solutions Servicing and Troubleshooting Guide

- The following information applies to the “CRS Engine Problems” section:

It is normal for the following CRS subsystems to be in Partial service if the subsystems are not configured. They will only be in service if you have configured the server to use them.

- Database subsystem—In service only if you have configured an external database for something such as a database dip when a call come in.
- MRCP ASR subsystem—In service only if you have configured an automatic speech recognition (ASR) system for use with Cisco CRS.
- MRCP TTS subsystem—In service only if you have configured a text to speech (TTS) system for use with Cisco CRS.
- VOIP Monitor subsystem—In service only if you have completely configured monitoring and recording on your server for monitoring and recording of agents.

- The following section should be added to the “Cisco CRS Administration Problems” section:

Callers hear a fast busy while calling the JTAPI triggers

Symptom: While calling the JTAPI triggers, callers hear a fast busy and the following message appears in the MIVR log:

```
%MIVR-SS_TEL-7-UNK:Call.rejected(TRIGGER_MAX_SESSION)
```

Recommended Action:

1. Delete and then add back the trigger
2. Restart CRS node manager.

- The “Calling party and CRA do not have common codec” in the “CRA Engine Problems” section should include this message as a symptom:

```
CTIERR_REDIRECT_CALL_MEDIA_CONNECTION_FAILED=0x8ccc0036
```

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information about obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and recommended aliases and general Cisco documents, see the monthly What's New in Cisco Product Documentation, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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