



Release Notes for Cisco Customer Response Solutions 4.1(1)

June 05, 2009

These release notes describe new features, important information, and caveats for Cisco Customer Response Solutions (Cisco CRS) Release 4.1(1).

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

Before you install or upgrade Cisco CRS, review the “[Installation and Upgrade Notes](#)” section on page 5 and the “[Important Notes](#)” section on page 7.

For a list of the resolved, open, and closed caveats for Cisco CRS 4.1(1), see the “[Caveats](#)” section on page 29.



Note

The name Cisco Unified CallManager has changed to Cisco Unified Communications Manager. These name changes are not reflected in the Cisco CRS 4.1 user interface or documentation, which use “Cisco Unified CallManager.”



Americas Headquarters:
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

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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 4.1 includes several new features, including the following:

- Support for Windows 2003 Server operating system
- Compatibility with Cisco Unified CallManager release 4.3
- Support for co-resident installation with Cisco Unified CallManager release 4.3
- Enhanced installation and upgrade procedures and tools
- Support for cold standby for CRS servers in different locations
- Cisco CRS Log Collection Tool, which collects log files into a zip file for troubleshooting purposes

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 4.1 Resources Card</i> in your Cisco CRS product package
Cisco CRS documentation	http://www.cisco.com/en/US/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/products/sw/custcosw/ps1846/products_device_support_tables_list.html
Virtual Network Computing (VNC) documentation	http://www.cisco.com/en/US/products/sw/netmgtsw/ps2255/tsd_products_support_maintain_and_operate.html
Cisco MCS hardware specifications	http://www.cisco.com/en/US/products/hw/voiceapp/ps378/products_data_sheets_list.html
<i>Cisco Unified CallManager Compatibility Matrix</i>	http://www.cisco.com/en/US/products/sw/voicesw/ps556/prod_software_versions_comparison.html
Cisco CallManager documentation	http://www.cisco.com/en/US/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
Service releases	http://www.cisco.com/kobayashi/sw-center/sw-voice.shtml

Table 1 ***Related Documentation (continued)***

Related Information and Software	Document or URL
Cisco Unified Contact Center Enterprise documentation	http://www.cisco.com/en/US/products/sw/custcosw/ps1844/tsd_products_support_series_home.html
Cisco Unified Intelligent Contact Management Enterprise documentation	http://www.cisco.com/en/US/products/sw/custcosw/ps1001/tsd_products_support_series_home.html

Installation and Upgrade Notes

The following sections provide information that relates to installing or upgrading Cisco CRS:

- [Correcting CRS 3.x Upgrade Error Caused by Incomplete Uninstallation of CRS 3.x, page 5](#)
- [Upgrading from CRS 3.x when CTI Ports Belong to More than One Device Pool, page 6](#)
- [Host Names and IP Addresses Should be in the Trusted Security Zone, page 6](#)
- [Upgrading Microsoft SQL Server 2000, page 6](#)
- [Hyperthreading Not Supported, page 7](#)
- [Backing Up BARS Trace File, page 7](#)

Correcting CRS 3.x Upgrade Error Caused by Incomplete Uninstallation of CRS 3.x

If you encounter an error when upgrading from Cisco CRS 3.x to CRS 4.1(1) and you determine that the error was caused by an incomplete uninstallation of the 3.x software (because, for example, you omitted an upgrade step or provided an incorrect response to a prompt), perform the following steps. This procedure assumes that you have successfully performed Step 1 through Step 16 in the “Upgrading the Cisco CRS Software” section in the “Upgrading Cisco CRS 3.x to Cisco CRS 4.1(1)” chapter in Cisco Customer Response Solutions 4.1(1) Installation Guide. In this case, you should have a backup file that is saved in a location other than the CRS server.

1. On the CRS server that is having the upgrade problem, re-install the operating system and re-image the operating system partitions.
2. Configure the re-imaged server with the same host name and IP address that it had originally.
3. Follow the procedure in “Replacing the Cisco CRS Server” section in the “Upgrading the Cisco CRS Software”, starting from Step 2.

Upgrading from CRS 3.x when CTI Ports Belong to More than One Device Pool

If you are upgrading from Cisco CRS 3.x and the CTI ports in any CTI port group belong to more than one device pool, make sure to add all of the device pools in the CRS 4.1(1) Data Migration page during the upgrade procedure.

Host Names and IP Addresses Should be in the Trusted Security Zone

To prevent the Internet Explorer pop-up blocker from interfering with Cisco CRS, add host names or IP addresses of each server in the Cisco CRS cluster and in the Cisco Unified CallManager cluster to the Internet Explorer trusted zone. To do so, from Internet Explorer, choose **Tools > Pop-up Blocker > Pop-up Blocker Settings**, enter a host name or an IP address in the Address of Web site to allow field, and then click **Add**.

Upgrading Microsoft SQL Server 2000

If you are using Microsoft SQL Server 2000, you must use the disk provided by Cisco to upgrade to the current version of this application when you upgrade to Cisco CRS 4.1(1). For instructions, see the *MS SQL Server 2000 for Cisco Customer Response Solutions* Resources Card.

Hyperthreading Not Supported

Hyperthreading is not supported by Microsoft Windows 2000 and 2003 and is disabled by default in Cisco-provided operating systems.

Backing Up BARS Trace File

When you back up the log files before you re-image a server as described in the “Re-Imaging Cisco CRS Servers” section in the “Upgrading Cisco CRS 4.0(x) to Cisco CRS 4.1” chapter in *Cisco CRS Administration Guide*, also back up the C:\Program Files\Cisco\Trace\BARS from the BARS server.

Important Notes

This section provides important information that might have been unavailable upon the initial release of documentation for Cisco CRS 4.1(1).

- **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

- **Upgrading Client Applications when Upgrading Cisco CRS**—When you upgrade from Cisco CRS 3.x to Cisco CRS 4.1(1), you must uninstall and then reinstall Cisco Agent Desktop, Cisco Supervisor Desktop, and Cisco Desktop Administrator, if you are using these applications. You also must upgrade the Cisco CRS Historical Reporting application, if you are using it. To do so, you must have administrator privileges that allow you to install applications and suspend virus and intrusion detection software on the servers on which these applications are running. For additional information, refer to the documentation for these applications, which is available at this URL:

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

- **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 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

- **Active Directory integration might affect performance**—If you are integrating Cisco CRS with Active Directory, refer to the caveat CSCsb20774 for details about how you might be affected and for workarounds. To access this caveat, see the “Using Bug Toolkit” section on page 29.
- **Deployment on MCS-7835-I1, MCS-7845-I1, or IBM xSeries-346 server**—If you are deploying an MCS-7835-I1, MCS-7845-I1, or IBM xSeries-346 server, refer to the field notice Some Cisco Media Convergence Server (MCS) Encounter Network Interface Card (NIC) Numbering Reversal, which is available at this URL:
http://www.cisco.com/en/US/products/hw/voiceapp/ps378/products_field_notice09186a0080415411.shtml
- **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
- **Moving a node to another subnet might affect performance**—If you move Cisco CRS nodes to another subnet, you may experience the following issues:
 - You cannot configure resource, skills, and so on
 - The MADM error log contains the message [Microsoft][ODBC SQL Server Driver][SQL Server][OLE/DB provider returned message: New transaction cannot enlist in the specified transaction coordinator.]

To work around this situation, check network connectivity, and add names to the hosts file.

- **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.

- **HA Licensing Requirements**



Note You need a WARM STANDBY license to enable the standby server.

When you apply the licenses to the first or active node in the cluster, the license files get uploaded to the LDAP server in the central repository. The license configuration applies to the cluster, that is, to all machines in the cluster. This implies that if you have uploaded the WARM STANDBY license to the repository, then when you add a standby server to the cluster, it would use the same profile or repository to get the license files and you do not need to apply the same license files again to the standby server.



Note There is no separate license required for an expansion server. However, the Recording and Monitoring services are enabled only with the ENH and PRE licenses.

If your license has HA capability, then the license file will contain a WARM_STBY feature line in it. For example, for Premium Servers, it would be CRS_EXP_PRE_WARM_STBY.

- **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.
- **Password aging restrictions**—Password aging is a Microsoft Active Directory feature that you can enable when Cisco Unified CallManager is integrated with Active Directory. Do not enable this feature for any of the “system” Cisco Unified 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 Unified IP Phone Agent
- Cisco Unified IP Phone Agent user—Agents will be unable to use the Cisco IP Phone Agent
- **Scheduled 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, scheduled 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.
- **“Administrator” is required Windows account username**—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.

- **Updating JTAPI and RMJTAPI users**—To update JTAPI and RMJTAPI users in Microsoft Active Directory, perform the procedure that is described in the “Setting the Access Control Lists for Active Directory” section in *Installing the Cisco Customer Directory Configuration Plugin for Cisco CallManager Release 4.1(3)*. This document is available at this URL: http://www.cisco.com/en/US/products/sw/voicesw/ps556/prod_installation_guide09186a00803f5c06.html

Perform this procedure on all servers that are specified in the Cisco CRS Administration JTAPI Provider list. In this way, Cisco CRS is able to communicate with Microsoft Active Directory via the AVVID XML Layer (AXL) interface.

- **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.
- **Agent not deleted automatically when not in LDAP**—An agent is no longer automatically deleted from the Cisco CRS database when Cisco CRS detects that the agent no longer exists in LDAP. Instead, the Cisco CRS Administration Resources page includes a new link called **Inactive Agents**. When you click this link, Cisco CRS displays a list of agents that do not exist in LDAP but that do exist in the CRS database. In this case, you can select certain agents to delete from Cisco CRS by checking the check box next to each agent, or you can select all agents for deletion by clicking **Check All**. Then click **Delete** to remove the selected agents from the Cisco CRS database. Until you follow this procedure, agents that no longer exist in LDAP continue to appear in the list of agents in Resources page, but they are unable to log in because the LDAP authentication is not successful. For more information, refer to *Cisco CRS Administration Guide*, which is available at this URL:

http://www.cisco.com/en/US/products/sw/custcosw/ps1846/tsd_products_support_series_home.htm



Note If LDAP errors or errors connecting to the LDAP server occur when you display the list of inactive agents, this list might not be accurate. When the errors are resolved, click **Inactive Agents** again to see an accurate list.

- **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.
- **Cisco Unified CallManager Publisher should be the first entry in the list of LDAP servers**—Before you upgrade from Cisco CRS 3.x or 4.0(x) to Cisco CRS 4.1(1), make sure that the Cisco Unified CallManager Publisher is the first entry in the list of LDAP servers in the Cisco CRS Administration Directory Configuration page, as described in the “Installation and Upgrade Notes” section in *Cisco CRS Installation Guide*, which is available at this URL:

http://www.cisco.com/en/US/products/sw/custcosw/ps1846/tsd_products_support_series_home.htm

To designate the list of LDAP servers for Cisco CRS 3.x, choose **System > Configuration and Repository** from Cisco CRS Administration to display the Directory Setup page. Click the **Configuration** link on the Directory Setup page and make any necessary changes. Then click the **Repository** link on the Directory Setup page and make any necessary changes. For more information, refer to Cisco CRS Administration Guide.

- To designate the list of LDAP servers for Cisco CRS 4.1, choose **System > LDAP Information** from Cisco CRS Administration to display the CRS LDAP Server Information page. For more information, refer to *Cisco CRS Administration Guide*, which is available at this URL:

http://www.cisco.com/en/US/products/sw/custcosw/ps1846/tsd_products_support_series_home.htm

In addition, when you perform the upgrade, make sure that the IP address or the host name of the Cisco Unified CallManager Publisher appears as the first entry in the “Enter LDAP server host name, IP address, or AD domain” field in the LDAP Server Information window. If the IP address or the host name of the Cisco CallManager Publisher does not appear as the first entry in this field, correct it manually.

- **ECC variable names should begin with “user”**—To ensure that variable data is handled properly, make sure that every user-defined Expanded Call Context (ECC) variable name begins with “user.”
- **Making configuration changes after failover**—If a node goes down in a high-availability Cisco CRS deployment, you cannot make configuration changes in Cisco CRS Administration. To work around this issue, take these actions:
 - Make sure the active node is the publisher. If it is not, use Cisco CRS Administration to make it the publisher for all datastores.
 - From the Component Activation page in Cisco CRS Administration, deactivate the Config Datastore and the Historical Datastore for the inactive node.
- **Configuring Cisco IP Communicator**—For information about configuring Cisco IP Communicator for use with Cisco CRS, refer to the following documents:
 - Cisco IP Communicator Administration Guide (2.0)
http://www.cisco.com/en/US/products/sw/voicesw/ps5475/products_administration_guide_book09186a00805f06b5.html
 - Install and Configure IP Communicator with CallManager 4.x
http://www.cisco.com/en/US/products/sw/voicesw/ps5475/products_tech_note09186a008026d36f.shtml
- **Size of Repository Datastore**—The Repository Datastore (named database db_cra_repository) stores user prompts, grammars, and documents files. The maximum total size of all files and folders that are stored in the Repository Datastore on a MCS with a 72 GB hard disk is 1.5 GB. This limitation applies even though the size of the Repository Datastore on a server with a 72 GB hard disk is 3 GB.

- **Using the CAD with Citrix or Microsoft Terminal Services**—Unified CCX 4.1(1) supports the running of the Cisco Agent Desktop (CAD) within a Citrix or Microsoft Terminal Services environment. For more information, refer to:
 - *Cisco Unified CCX Solution Reference Network Design*, which is available at www.cisco.com/go/srnd.
 - *Integrating CAD into a Citrix MetaFrame Presentation Server or Microsoft Terminal Services Environment*, which is available at http://www.cisco.com/application/pdf/en/us/guest/products/ps427/c1676/ccmigration_09186a00805fd93c.pdf.
- **AAR manifest file**—The AAR manifest file must be in UTF-8 format.
- **Activating a second Cisco CRS Engine Component**—To activate a second server on which you installed the Cisco CRS Engine component in a deployment in which Cisco CallManager is integrated with Microsoft Active Directory, perform the following steps.

(If you are attempting to activate the component using the Cisco CRS server setup procedure, you can ignore this message that appears on the Component Activation Results page: JTAPI information is not created properly, please use JTAPI Resynchronize option in JTAPI pages to fix the issues. Perform the following steps after you complete the server setup procedure.)

- a. From the Cisco CRS Administration application, choose **System > Control Center**, and make a note of the ID of the server on which you are activating the component.
- b. Choose **Subsystems > JTAPI > JTAPI Provider** and make a note of the User Prefix.
- c. Create a new user in Microsoft Active directory.
 The user name should be *JTAPI-user-prefix_node-id*. Replace *JTAPI-user-prefix* and *node-id* with the values that you noted.
 The password should be the same as the JTAPI user on the existing Cisco CRS Server.
- d. From the Cisco CRS Administration application, choose **Subsystems > JTAPI > Resynchronize**, and then click **Synchronize**.

- **MSDE or MS SQL 2000 Use**—If your Cisco CRS system will handle a high volume of calls, use the Cisco Unified CCX and IP IVR Configuration and Ordering Tools, available at the following URL, to determine whether MSDE or MS SQL 2000 is the suitable database for your installation.
http://www.cisco.com/en/US/partner/products/sw/custcosw/ps1846/prod_how_to_order.html
- **Guidelines for entries in JTAPI CTI Port Group Migration page**—Entries in the following fields in the JTAPI CTI Port Group Migration page in Cisco CRS Administration must follow the guidelines for the corresponding fields in Cisco Unified CallManager Administration. For information about these guidelines, refer to the Cisco CallManager documentation.
 - Description
 - Display
 - External Phone Number Mask
- **Link to Documentation**—The Help page in Cisco CRS Application Administration now includes a link called **CRS Documentation on Cisco.com**. This link provides access to the Cisco CRS documentation.
- **CRS 3.x system workflows not migrated**—Workflows that were installed by Cisco CRS 3.x serve a variety of purposes. Some, such as rm.aef and cm.aef, are required for system functionality. Others, such as aa.aef and icd.aef, provide examples of system capabilities. If you modify any system workflow for your use, make sure to save it under a different name. Sample scripts are not propagated when you upgrade Cisco CRS. If you do not rename a script, you will lose your changes when you perform an upgrade.
- **Changing LDAP**—If you change the LDAP for your installation (for example, if you change from DC-Directory to Microsoft Active Directory), you must use Cisco CRS Application Administration to reconfigure your Cisco CRS data.
- **CRS Editor is not backward compatible**—You cannot edit a workflow with a version of the Cisco CRS Editor that is older than the version that you used to create the workflow.
- **VAD should not be enabled when ASR is used**—When setting up a system that supports automatic speech recognition (ASR), Voice Activity Detection (VAD) should not be enabled anywhere in the network in which voice traffic will be transmitted if that traffic is routed to a Cisco CRS server with ASR.

- **SQL replication issues**—If SQL replication is enabled through the Enterprise Manager, extra columns are added to tables in the db_cra database. Because of these extra columns, the following message appears when you attempt to make configuration changes such as changing or adding skills, resource group, or CSQs:

There was an error reading/updating the database. Please contact your administrator

To workaround this issue, restore the system from a good backup or reinstall Cisco CRS server with MS SQL Server 2000. Custom replication is not supported

- **Installing older CRS release is not supported**—You cannot install a release of Cisco CRS that is older than the release that you currently have installed.
- **Require Secure Channel [ssl] prevents access to JTAPI subsystem options**—If Require Secure Channel [ssl] is enabled on the Cisco Unified CallManager server and you choose an option in the JTAPI subsystem, you are asked for Cisco CallManager authentication, but the operation fails even if you enter the proper authentication. To avoid this issue, follow these steps on the Cisco Unified CallManager server:
 - Choose **Programs > Administrative Tools > Internet Information Services (IIS) Manager**.
 - Under **Internet Information Services**, expand the entry for the Cisco CRS node.
 - Right-click **Default Web Site** and choose **Properties**.
 - Click the **Directory Security** tab and click Edit in the Secure communications area.
 - Uncheck the **Require Secure Channel [ssl]** check box.
 - Click **OK** as needed to close the windows.
- MSDE or SQL Server 2000 are installed in mixed-mode configuration.
- **Unable to make modifications to the Cisco CRS cluster**—If you are unable to upload new prompts, modify teams, or make other similar configuration changes in a Cisco CRS cluster that is integrated with Microsoft Active Directory, a BARS backup may have failed or the patching process may have failed. In this case use the ADSIEDIT.MSC tool to edit the LDAP repository and append “?Empty” to Modify archiveID, archiveRequest, archiveTimestamp, and archiveUserInfo.

- **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 on Unregistered 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)
- **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 4.1(1) does not support the following configurations:

- Shared lines for CTI ports and for CTI route points.
- Enabling the multilevel precedence and preemption (MLPP) flag in Cisco CallManager Administration.

Unsupported and Supported Actions for Cisco Unified CCX Agents

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

Unsupported Actions for Cisco Unified CCX Agents

Use of the following softkeys on a Cisco Unified 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 are 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

- A Unified CCX extension configured on a single device (but not on multiple devices).
- A Unified CCX extension configured in a single device profile (but not in multiple device profiles).
- Multiple agents sharing the same Unified CCX extension, which you can set up as follows:
 - a. Configure the Unified CCX 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 Unified CCX extension for each agent.

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



Note

All agents that currently have the Unified CCX 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.
- A Unified CCX extension assigned to multiple devices.

- Configuring the same Unified CCX extension in more than one device profile, or configuring the same Unified CCX extension in any combination of device profiles and devices. (Configuring a Unified CCX extension in a single device profile is supported.)
- In the Cisco Unified CallManager Administration Directory Number Configuration web page for each Unified CCX line, setting Maximum Number of Calls to a value other than 2.
- In the Cisco Unified CallManager Administration Directory Number Configuration web page for each Unified CCX line, setting Busy Trigger to a value other than 1.
- Configuring a Cisco Unified IP Phone with Secure Real-Time Protocol (SRTP) on.
- No Cisco Call Manager device can be forwarded to the Unified CCX extension of an agent.
- The Unified CCX 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 Unified CCX extension of an agent.

Unsupported Features in Cisco Unified CallManager

The following Cisco Unified CallManager features are not supported by Cisco CRS 4.1(1). These features are disabled by default and should not be enabled for Cisco CRS. For more information about these features, refer to the Cisco Unified 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 Unified 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 Unified CallManager cluster that Cisco CRS might use. Enabling these features for route patterns that Cisco CRS does not use will not affect 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 Unified CCX 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 Unified CCX Stats real-time report shows the call as abandoned in both cases because it does not consider the SetContactInfo step.

For more information about theSetContactInfo 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 Unified CCX 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 Unified CCX Stats report shows it as abandoned.

- If the Dequeue step is used, the CSQ historical reports show 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 the 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 show the contact as abandoned.
- If a call is dequeued using the Dequeue step and the caller drops, the CSQ Unified CCX Stats real-time report shows the call as dequeued. If a call is dequeued from CSQ1 and is eventually handled by CSQ2, the CSQ Unified CCX 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 Unified CCX Stats report shows the call as handled for CSQ1 and dequeued for all other CSQs.

Cisco CRS Database Changes that affect Custom Historical Reports

This section describes changes that affect the CRS database tables for CRS 4.1. It includes information that you should review if you have created custom reports in CRS 3.x and you want to continue using these reports after you upgrade to CRS 4.1.

This section uses the following abbreviations for database tables:

- CCD—for ContactCallDetail
- CRD—for ContactRoutingDetail
- CQD—for ContactQueueDetail
- ACD—for AgentConnectionDetail
- CSQ—for ContactServiceQueue

Changes to database tables include:

- ContactCallDetail table moved from the db_cra_ccdr database to the db_cra database.

- ContactQueueDetail table added to store individual contact service queue (CSQ) information. Now information for more than three CSQs can be stored.
- ContactRoutingDetail table no longer stores individual CSQ information. It now stores overall queuing information. Information for individual CSQs moved to CQD.
- NodeID added to CCD, CRD, CQD, and ACD.
- CRD, CQD, and ACD tables now include qIndex. Corresponding records should be joined on qIndex for conference to route point.

[Table 2](#) provides information that you should review if you have created custom historical reports that you want to continue using after you upgrade Cisco CRS.

Table 2 **Information for Custom CRS Historical Reports**

Activity	Comments	Cisco CRS 3.x Usage Notes	Cisco CRS 4.1 Usage Notes
Using the ContactCallDetail (CCD) table in a custom report.	<p>Cisco CRS 3.x stores the CCD table in the db_cra_ccdr database.</p> <p>Cisco CRS 4.1 stores it in the db_cra database.</p>	<p>Use either of these statements:</p> <pre>select * from db_cra_ccdr.. ContactCallDetail</pre> <p>or</p> <pre>select * from db_cra_ccdr.dbo. ContactCallDetail</pre>	<p>Use this statement</p> <pre>select * from db_cra.dbo. ContactCallDetail</pre>

Table 2 **Information for Custom CRS Historical Reports**

Activity	Comments	Cisco CRS 3.x Usage Notes	Cisco CRS 4.1 Usage Notes
Using the ContactRoutingDetail (CRD) table in a report to show CSQ information.	<p>Cisco CRS 3.x stores queue information for up to 3 CSQs in the CRD table.</p> <p>CRS 4.1 stores overall queue information in the (CRD) table, and stores information for an unlimited number of individual CSQs in a new table called ContactQueueDetail (CQD).</p>	<p>Calls presented:</p> <p>CSQ recordID is stored in CRD.primaryCSD, CRD.CSD1, CRD.CSD2, or CRD.CSD3.</p> <p>CRD.primaryCSD is the CSQ that handled the call. The other fields indicate the CSQs to which the call was presented, but not handled.</p> <p>For example:</p> <p>CRD.primaryCSD = 1</p> <p>CRD.CSD1 = 2</p> <p>CRD.CSD2 = 3</p> <p>CRD.CSD3 = 4</p> <p>The call is presented to CSQs with recordIDs of 1, 2, 3, and 4. It is handled by the CSQ with recordID 1.</p>	<p>CSQ recordID is stored in CQD.targetID, where CQD.targetType = 0.</p> <p>For total calls presented to each CSQ recordID, use:</p> <p>select targetID, count(*)from ContactQueueDetail where targetType = 0 group by targetID</p>

Table 2 **Information for Custom CRS Historical Reports**

Activity	Comments	Cisco CRS 3.x Usage Notes	Cisco CRS 4.1 Usage Notes
Using the ContactRoutingDetail (CRD) table in a report to show CSQ information (<i>continued</i>).		<p>Calls handled:</p> <p>The CSQ recordID that handled the call is stored in CRD.primaryCSD. If the value of this recordID is –1, no CSQ handled the call.</p>	<p>For total calls handled by each CSQ, use:</p> <pre>select targetID, count(*) from ContactQueueDetail where targetType = 0 and disposition = 2 group by targetID.</pre> <p>You can also join CQD with CCD to check that CCD.contactDisposition = 2, and you can join CQD with ACD to check that ACD.talkTime is non-zero.</p>
		<p>Calls abandoned:</p> <p>The CSQ recordID from which the call is abandoned is stored in CRD.CSD1, CRD.CSD2, or CRD.CSD3. CCD.contactDisposition should be 1.</p>	<p>For total calls abandoned from each CSQ:</p> <pre>select targetID, count(*) from ContactQueueDetail where targetType = 0 and disposition = 1 group by targetID</pre>

Table 2 **Information for Custom CRS Historical Reports**

Activity	Comments	Cisco CRS 3.x Usage Notes	Cisco CRS 4.1 Usage Notes
<p>Using the ContactRoutingDetail (CRD) table in a report to show CSQ information (<i>continued</i>).</p>		<p>Calls dequeued:</p> <p>Scenario 1: Call is handled by a script and dequeued from all CSQs that it was queued for.</p> <p>The CSQ recordID is stored in CRD.CSD1, CRD.CSD2, or CRD.CSD3. CRD.primaryCSD should be -1, and CCD.contactDisposition should be 2 (handled). ACD should not be present, or ACD.talkTime = 0 (ring-no-answer).</p> <p>Scenario 2: Call is handled by one of the CSQs and dequeued from all the others.</p> <p>The CSQ recordID is stored in CRD.CSD1, CRD.CSD2, or CRD.CSD3. CRD.primaryCSD is the recordID of the CSQ that handled the call. ACD should be present, with talkTime not equal to zero</p>	<p>For total calls dequeued from each CSQ:</p> <pre>select targetID, count(*) from ContactQueueDetail where targetType = 0 and disposition in (3, 4, 5) group by targetID</pre>

Table 2 **Information for Custom CRS Historical Reports**

Activity	Comments	Cisco CRS 3.x Usage Notes	Cisco CRS 4.1 Usage Notes
Joining CCD, CRD, ACD on sessionID, sessionSeqNum, and profileID.	For CRS 4.1 multi-node deployments, you must to join the tables on nodeID.	Use this statement: select * from CCD, CRD where CCD.sessionID = CRD.sessionID and CCD.sessionSeqNum = CRD.sessionSeqNum and CCD.profileID = CRD.profileID	Use this statement: select * from CCD, CRD where CCD.sessionID = CRD.sessionID and CCD.sessionSeqNum = CRD.sessionSeqNum and CCD.profileID = CRD.profileID and CCD.nodeID = CRD.nodeID
Joining CRD and ACD to display CSQ and agent information.	In CRS 4.1, a new table called ContactQueueDetail is created to store CSQ information for individual CSQs. In addition, CQD and ACD join on qIndex to identify the agent that handled a call when the call is conferenced to a route point.	Use this statement: select * from CRD, ACD where CRD.sessionID = ACD.sessionID and CRD.sessionSeqNum = ACD.sessionSeqNum and CRD.profileID = ACD.profileID	Use this statement: select * from CQD, ACD where CQD.sessionID = ACD.sessionID and CQD.sessionSeqNum = ACD.sessionSeqNum and CQD.profileID = ACD.profileID and CQD.nodeID = ACD.nodeID and CQD.qIndex = ACD.qIndex

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 29](#)
- [Known Limitation\(s\), page 30](#)
- [Open Caveats, page 31](#)
- [Closed Caveats, page 35](#)

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:
 - From the Select Product Category list, choose **Voice and Unified Communications**.
 - From the Select Product list, choose **Cisco Unified Contact Center Express**.
 - From the Software Versions drop-down list, choose the desired Cisco CRS release.
 - Click the desired Advanced Options radio button
If you choose custom settings, enter appropriate custom information.
 - 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.

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 29.

Table 3 **Open Caveats**

Identifier	Headline and Bug Toolkit Link
CSCeg65794	en_US must populate default directory prompts, grammars, documents
CSCsb10553	Remove components during Install causes missing JAR file
CSCsc00182	Alarm Service event viewer messages contains some Window error messages

Table 3 ***Open Caveats (continued)***

Identifier	Headline and Bug Toolkit Link
CSCsc54555	ICM SNMP is disabled when a peripheral gateway 7.0 PG is installed on a Cisco CRS server
CSCsc90176	IVR languages are not updated after reinstall
CSCsd42186	Incorrect CCD and CRD record linkage
CSCsd63264	MTS, agent.ini is missing fields, Size and Level
CSCsd69608	Binding order of Cisco Telephony Windows 2000 operating system has second NIC first
CSCsd70895	Add node2 after Cisco CRS 3.x upgrade with group default language causes node2 to be invalid
CSCsd71976	Failed to upgrade after cancel install for several times
CSCsd77505	Installer should display message to user when unable to uninstall Cisco CRS 3.5
CSCsd79065	Installer to cleanup workflow data during upgrade
CSCsd84491	Replication snapshot fails for CRSProperties with primary key violation
CSCsd96049	Jtapi port group migration UI problem—device pools update
CSCse15624	ArrayIndexOutOfBoundsException in the Repository layer
CSCse79713	Historical Reports Scheduler cannot print/export reports on remote printer/shared drive
CSCsf18243	Cisco Supervisor Desktop barge, then intercept drops calls
CSCsf25410	CRS upgrade populates users with blank passwords in LDAP
CSCsg24966	When LDAP is corrupted in Active Directory, the PATH of Missing OU not shown
CSCsg29737	Cisco CRS Application Administration should warn users when the deployment is invalid
CSCsg36445	.wav file cannot not be played if missing the optional Extra Format Size
CSCsg37133	User must manually stop and disable the Cisco Security Agent prior to CRS upgrade
CSCsg37139	JTAPI Data Migration is exposed to the customer
CSCsg43993	Next button should be dimmed after being selected during setup

Table 3 **Open Caveats (continued)**

Identifier	Headline and Bug Toolkit Link
CSCsg62013	“Could not get devices from Sync service” pop-up observed in Cisco Desktop Administrator
CSCsg71062	Reactive debugging workflow specified using http:// is not working
CSCsg78722	sp_deleteWorkflowTask execution fails from Installer intermittently
CSCsg94702	Server setup—During component activation, WebPageDialog leads to broken link
CSCsg94714	CRS has no way to tell if MRCP server out of ports
CSCsg94731	SQL Utility when run—message box displays dba_cra_repository
CSCsg94735	Cluster setup—Add License page shows License Package change details twice
CSCsh04831	Called Number is NULL on outgoing call in an HTTP trigger
CSCsh05810	Text on disk space check window needs to be modified
CSCsh06034	Unskilled agents showing on Skill Report when All Skills chosen
CSCsh15062	Settings > Options > Select All is not working
CSCsh15871	Gives wrong CTI port numbers after update
CSCsh16033	CAD clients using Automated Update will fail if Internet Explorer 7 is installed
CSCsh19092	Cisco Desktop Administrator cannot get MAC list if rm profile name is different with Resource Manager ID
CSCsh20355	Cisco Unified Contact Center Express does not respond to Open Receive Channel for 15 seconds
CSCsh42471	Installer fails to restore node if BARS not installed
CSCsh57081	Time of Day step not honoring system clock—need new JRE
CSCsh62471	CAD failed with the agent or workflow initiated action request failed
CSCsh62481	Historical Reports detailed CCDR—Hold time and work time are empty
CSCsh64755	NTP with Windows Time service drops TCP connections
CSCsh66648	CTI ports and CTI route points not registering
CSCsh68404	Disordering of events when call is transferred to route point
CSCsh71100	HTTP trigger failed to work due to 8080 port being used by RAID manger

Table 3 ***Open Caveats (continued)***

Identifier	Headline and Bug Toolkit Link
CSCsh71766	Historical Reports stuck in executing mode—Need better message in Cisco CRS Administration
CSCsh73057	VB <record> element does not handle hang-up correctly
CSCsh73093	DTMF voice browser does not retain abort exception
CSCsh77266	Type ahead in not working with DTMF Voice Browser
CSCsh77270	Root document variables could not be referenced from document
CSCsh77277	DTMF voice browser returns no-input on timeout even after digits are entered
CSCsh77286	URI parameters are not passed by Voice Browser
CSCsh77305	Voice browser fetches JSP documents twice if a query string is present
CSCsh77616	CAD Window Behavior functionality is not working
CSCsh78314	When a broadcast message is left it creates an additional invalid message
CSCsh78340	Voice browser generates the wrong regex expression for custom grammar ending in *
CSCsh79300	Features and specifications list and the CAD install guide needs updating
CSCsh86592	Upgrade from Cisco CRS 3.x needs validation of backup file
CSCsh86621	Changes to script variables cannot be saved
CSCsh87478	Editor install dialog box gives wrong message
CSCsh89575	Database subsystem cannot use DSN name that contains “Driver”
CSCsh92209	In voice browser 2.0, “clear namelist” does not clear the event count
CSCsh93326	Cisco Unified Contact Center Express mishandles transfer completed before CTI port accepts call
CSCsh94711	Syslog server not updated in AlarmService.properties
CSCsh96355	Help file not getting loaded in Historical Reporting client
CSCsh97426	No event connection.disconnect.hangup is being sent by the voice browser
CSCsh98155	Cannot use Search For Help On option in the Historical Reporting client Help menu
CSCsh99706	CRS, DB, JTAPI versions are not showing up in the BARS page during restore
CSCsi00111	Unable to create or update any CSQ containing mapped resources after upgrade

Table 3 **Open Caveats (continued)**

Identifier	Headline and Bug Toolkit Link
CSCsi00876	Upgrade to Cisco CRS 4.1 from specific 4.0(x) does not retain configurations done from Cisco Desktop Administrator
CSCsi00876	Upgrade to 4.1 from specific 4.0(X) does not retain configurations done from Cisco Desktop Administrator
CSCsi01466	Agent based HRC reports not getting populated
CSCsi03524	Purge Schedule Configuration screen shows an error
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 29.

Table 4 **Closed Caveats**

Identifier	Headline and Bug Toolkit Link
CSCee89415	Cisco CRS with Active Directory fails to upload spoken name prompts
CSCsc68616	JTAPI trigger page displays blank page, GT machine
CSCse51070	Errors, and editor crashing
CSCse54564	Unable to log in to Cisco CRS Administration or Historical Reports client after Active Directory failover
CSCsg13461	Request to disable the auto updates for the CAD
CSCsg40935	Uploading prompt .zip file to repository larger than maximum gives no error

Documentation Updates

The following sections provide documentation changes that were unavailable when the Cisco CRS 4.1(1) documentation was released:

- [Documentation Updates to Cisco CRS Administration Guide, page 36](#)
- [Documentation Updates for Cisco CRS Installation Guide, page 37](#)
- [Documentation Updates for Cisco CRS Scripting and Development Series, page 40](#)
- [Documentation for CRS Step Editor Reference Guide, page 42](#)
- [Documentation Updates for Cisco Customer Response Solutions Historical Reporting Administrator and Developer Guide, page 42](#)
- [Documentation Updates for Cisco Customer Response Solutions Servicing and Troubleshooting Guide, page 44](#)

Documentation Updates to *Cisco CRS 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.”
- 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 “Obtaining License Files if you have a SASU Service” section:
 - The Note ‘A new license is not required if you are upgrading from Cisco CRS 4.0(X) to 4.1’ is incorrect and should be removed. A new license is required when you upgrade to a different release.
- The following update applies to the “Upgrading the Cisco CRS software section” in the “Upgrading Cisco CRS 4.0(x) to Cisco CRS 4.1(1)” chapter:
 - Step 15, the Note ‘If you did not run the CRS 4.1 Pre-Upgrade Tool before you started the upgrade procedure, this tool starts before the Windows Server Information window appears. In this case, follow the on-screen prompts to run this tool. For more information, see the “Running the Pre-Upgrade Tool When Upgrading from Cisco CRS 4.x” section on page 3-5.’ is incorrect and should be removed.
- 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.
 - Add this Note, Running BARS using terminal services or VNC is not supported.
- The following update applies to the Verifying Hardware Settings and Connectivity section of the Installation and Upgrade Requirements, Prerequisites, and Related Procedures chapter:

Configuring Speed and Duplex Settings:

Step 5: Should read as ‘Set Speed and Duplex to Auto.’

- The following update applies to the “Installation and Upgrade Requirements, Prerequisites, and Related Procedures” chapter:

Add a new section named “Guidelines for Deploying High Availability” as shown below:

Guidelines for Deploying High Availability

The following sections provide guidelines that you should follow if you deploy a Cisco CRS solution with high availability:

Guidelines for Deploying High Availability with Two Servers

If you are deploying high availability in an environment with two servers, perform the following general steps in this order.

**Note**

If servers have different hard disk sizes, use the server with smaller disk as the active server and use the server with the larger disk as the standby server.

1. Install the Cisco CRS Engine, all the Datastore components, and Microsoft SQL Server 2000 on the server that will be the active server *before* you reboot the server.
2. Activate all Cisco CRS components on the active server
3. Install the Cisco CRS Engine, all the Datastore components, and Microsoft SQL Server 2000 on the server that will be the standby server *before* you reboot the server.
4. Activate all the components on the Standby server

Guidelines for Deploying High Availability with Four Servers

If you are deploying high availability in an environment with four servers, perform the general steps that are described in this section. Choose the method that suits your requirements.

**Note**

If servers have different hard disk sizes, use the server with smaller disks as active servers and use the servers with the larger disks as the standby servers.

Method 1: Bring up a Call Center Quickly and Add High Availability Later

If you want to bring up your call center quickly, perform the following general steps in order shown. With this method, Cisco CRS starts without high availability and you add standby servers later.

1. Install the Cisco CRS Engine on the server that will be the active Engine server and activate the Cisco CRS Engine.
2. Install all Datastore components and Microsoft SQL Server 2000 on the server that will be the active database server *before* you reboot the server.
3. Activate the Datastore components on the active database server.
4. Install the Cisco CRS Engine on the server that will be the standby Engine server and activate the Cisco CRS Engine.
5. Install all Datastore components and Microsoft SQL Server 2000 on the server that will be the standby database server *before* you reboot the server.
6. Activate the Datastore components on the standby database server.

Method 2: Bring up a Call Center with High Availability Running

1. If you want to bring up your call center with high availability running, perform the following general steps in order shown. With this method, Cisco CRS starts with high availability, but the deployment takes longer than method 1.
2. Install the Cisco CRS Engine on the server that will be the active Engine server and activate the Cisco CRS Engine.
3. Install the Cisco CRS Engine on the server that will be the standby Engine server and activate the Cisco CRS Engine.
4. Install all Datastore components and Microsoft SQL Server 2000 on the server that will be the active database server *before* you reboot the server, then activate the database components on this server.
5. Install all Datastore components and Microsoft SQL Server 2000 on the server that will be the standby database server *before* you reboot the server, then activate the database components on this server.

Guidelines for Deploying Microsoft SQL Server 2000 with High Availability

When you deploy high availability, the following guidelines apply to Microsoft SQL Server 2000:

- Microsoft SQL Server 2000 must be installed on each server on which the Cisco CRS Datastore components are installed and activated. In a four-server deployment, it does not need to be installed on the servers on which the Cisco CRS Engine is installed.
- Complete the installation of MS SQL Server 2000 on a server before installing it on another server.
- Activate the Datastore components on a server after you install MS SQL Server 2000 on the server.
- If you are changing from a deployment without high availability to a deployment with high availability, first install MS SQL Server 2000 and configure the Datastore components on an existing server. Then install MS SQL Server 2000 and configure the Datastore components on the standby server.

The following update applies to the “Patching Cisco CRS” chapter in *Cisco CRS Installation Guide*, add this note:

Running BARS using terminal services or VNC is not supported.

Documentation Updates for *Cisco CRS Scripting and Development Series*

The following information applies to *Cisco CRS Scripting and Development Series* documents:

About Expressions and Java Licensing

In CRS 4.x, Java expressions are validated against installed licenses to make sure that they do not violate license agreements. This validation is performed by the CRS Engine whenever a script is loaded or whenever a prompt template or grammar template is accessed and evaluated.

In IP IVR, IP Queue Manager, Unified CCX Enhanced, and Unified CCX Premium, you can enter both simple and complex expressions.

However, in Unified CCX Standard, you can enter only simple expressions unless you also have a Java license. You automatically have a Java license with the other four CRS products.

An example of a TTS feature is a TTS prompt complex literal. A Java feature is a complex expression block, a Java-like statement, method, constructor invocation expression, or a field access expression.

Any license violation will be recorded in the logs and prevent the scripts from being loaded in memory.

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

- The following information applies when you use the Place Call Step as described in the “Working with Multiple Contacts” chapter in *Cisco Customer Response Applications Developer Guide*:

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 Scrip” chapter in *Cisco CRS Scripting and Development Series: Volume 1, Getting Started with Scripts*:

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.

Documentation for CRS Step Editor Reference Guide

The descriptions of the Http Contact, the E-mail Contact, and the Database palette steps in *CRS Step Editor Reference Guide* include the following incorrect note:

“The Http Contact, the E-mail Contact, and the Database palette steps are available in your CRS Editor only if you have purchased the Unified IP IVR or Unified CCX Premium license options.”

The note in the descriptions of the Http Contact, the E-mail Contact, and the Database palette steps should instead say:

“The Http Contact, the E-mail Contact, and the Database palette steps are runnable in your CRS scripts only if you have purchased the Unified IP IVR or Unified CCX Premium license options.”

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

The following information applies to the “Before You Begin” section in the “Creating Custom Historical Reports for Cisco Customer Response Solutions” chapter in *Cisco Customer Response Solutions Historical Reporting Administrator and Developer Guide*:

- Before you copy the specified files from the Cisco CRS Historical Reports folder on the Cisco CRS Historical Reports client system to the C:\Program Files\Business Objects\Crystal Reports 11 folder, make sure that the Cisco CRS Historical Reporting client is installed on the same PC as Crystal Report version XI.

The following information applies to the “Creating a Report using Crystal Reports Version XI” section in the “Creating Custom Historical Reports for Cisco Customer Response Solutions” chapter in *Cisco Customer Response Solutions Historical Reporting Administrator and Developer Guide*:

- In Step 4a, the second paragraph should read as follows:

You must append the named instance to the IP address or the host name that you enter. For example, if the server name is CRAHRsrv, and the named instance is \CRSSQL, enter CRAHRsrv\CRSSQL, 4433 in this field.

The following information applies to the “Frequently Asked Questions” chapter in *Cisco Customer Response Solutions Historical Reporting Administrator and Developer Guide*:

- 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 General section 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 Customer Response Solutions Servicing and Troubleshooting Guide

- The following new Step 11 should be added to the “General Troubleshooting Steps” section in the “Diagnosing and Correcting Cisco CRS Problems” chapter:

Step 11. Verify that there is network connectivity to the CRA server.

- The following note should be added to the “JTAPI subsystem is in partial service” troubleshooting tip:

If a failure occurs during JTAPI migration process from CRS 3.5, a CTI port group may have only a subset of the CTI ports migrated. This situation can result in JTAPI subsystem being in partial service. In this case, go to the JTAPI Subsystem Configuration page in Cisco CRS Administration, then delete and recreate the CTI port group.

- 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 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 “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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