Release Notes for Cisco Customer Response Solutions 5.0(2)

July 10, 2010

These release notes describe new features, important information, and caveats for Cisco Customer Response Solutions (Cisco CRS) Release 5.0(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

Before you use Cisco CRS, review the "Installation Notes" section on page 5.

For a list of the open and closed caveats for Cisco CRS 5.0(2) see the "Caveats" section on page 18.

Product Notice

Cisco CRS now supports Cisco Unified Communications Manager Express. For related information and documentation references, see the "Installation Notes" section on page 5.

Cisco CRS now supports Cisco Unified E-Mail Interaction Manager (Unified EIM) and Cisco Unified Web Interaction Manager (Unified WIM) 4.2.2 SR1.

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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 5.0(2) provides resolutions to important issues. It also provides:

- Support for Cisco Unified E-Mail Interaction Manager (Unified EIM) and Cisco Unified Web Interaction Manager (Unified WIM) 4.2.2 SR1.
- Supports upgrade from 4.5.x to 5.0(2) and 5.0(1) to 5.0(2).
- Microsoft Vista support for CAD/CSD, Historical Reporting Client (HRC) and Editor
- Standard license repackaging to include skill based routing. Only IPPA is supported in the standard package. CAD is supported only on Enhanced and Premium license.
- Support for SQL Server 2005 as enterprise database.
- Support for WFO 1.1.
- Support for Danish localization.
- SQL CD reuse Utility - Please check the Cisco CRS Installation Guide for more information.

Cisco CRS 5.0(2) also provides the following updated documents:

- *Cisco CRS 5.0(2) Installation Guide*
- *Cisco Unified Contact Center Express Edition Solution Reference Network Design (SRND)*

You can access these updated documents at this URL:

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

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.

Table 1 Related Documentation

Related Information and Software	Document or URL
Cisco CRS documentation	http://www.cisco.com/en/US/products/sw/custcosw/ps1846/tsd_products_support_series_home.html
Cisco Customer Response Solutions (CRS) Software and Hardware Compatibility Guide	http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_device_support_tables_list.html
Cisco CRS Solution Reference Network Design	www.cisco.com/go/srnd
Voice and Unified Communications information	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/netmgtsw/ps2255/index.html
Cisco MCS hardware specifications	http://www.cisco.com/en/US/products/hw/voiceapp/ps378/products_data_sheets_list.html
Cisco Unified Communications Manager documentation	http://www.cisco.com/en/US/products/sw/voicesw/ps556/tsd_products_support_series_home.html
Cisco Unified CME Administration Guide	http://www.cisco.com/en/US/products/sw/voicesw/ps4625/products_configuration_guide_book09186a00807c5776.html
Telepresence Software	http://www.cisco.com/en/US/products/ps7074/tsd_products_support_maintain_and_operate.html
Service releases	http://www.cisco.com/kobayashi/sw-center/sw-voice.shtml

Installation Notes

When you install Cisco CRS 5.0(2), refer to the Cisco CRS Installation guide for installation instructions.

Also, be aware of the following information and guidelines:

- Before you install, upgrade, or repair Cisco CRS, make sure to disable virus scanning and the Cisco Security Agent on the server on which you are performing the procedure.

  For more information, refer to the *CRS Installation Guide*, which is available at the URL:

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

- Running previous versions of CRS installers on a system that is configured with CRS 5.0(2) is not supported.
- Hyperthreading is not supported by Microsoft Windows 2000 and 2003 and is disabled by default in Cisco-provided operating systems.
- Windows 2K3 does not allow more than 15 characters in the machine hostname. Before installing Cisco CRS, 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. Refer to the caveat, CSCsl18628, for details. To access this caveat, see the Using Bug Toolkit, page 19.
- While performing the installation in the Repair mode, please ensure that no other windows, for example, Task Manager, or dialog boxes are open. If any other window is open during the installation process, the “File in use” wizard screen is displayed. This screen displays the file in use and gives the option of Retry, Ignore, and Exit. When this screen is displayed, close all the other windows and click on the Retry button. The installation will proceed.

  Note Please do not click the Exit button.

  If you click the Exit button, the installation process closes. The Repair process cannot be performed again. Please follow the workaround to restore the system:

  Workaround:

a. Reimage the system.

b. Install Cisco CRS 5.0(2).

c. Restore the system while performing the Restore operation of the backed up tar file.

Refer to the caveat, CSCsl69813, for details. To access this caveat, see the Using Bug Toolkit, page 19.

Important Notes

This section provides important information that might have been unavailable upon the initial release of documentation for Cisco CRS 5.0(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

- **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

- **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.

- **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.
- Cisco Unified Communications Manager Auto-Register Phone Tool (TAPS)—To know more about the working of TAPS, refer to the Cisco Unified Communications Manager Bulk Administration Guide, located at this URL:

  http://www.cisco.com/en/US/docs/voice_ip_comm/cucm/bat/6_0_1/t15taps.html
- **Importing Contacts for a Campaign**—While importing the contacts file for a campaign, use only comma-separated plain text file with .txt extension. The contacts file should be ASCII-encoded or UTF-8 encoded if it contains special characters (for example, if the contact names are in Chinese, Russian, Japanese and so on).

- **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 Cisco CRS, 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

- **`sysApplPastRunTable`**—Cisco CRS 5.0(2) does not support `sysApplPastRunTable` as part of `SysApplAgent`.

- **JTAPI Resync**—Before attempting the JTAPI Resync from the CRS Appadmin interface, the McAfee VirusScan On-Access scan should be enabled on the CRS Server. Refer to the caveat, CSCsk61447, for details. To access this caveat, see the Using Bug Toolkit, page 19.

- **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) on the CRS server 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.

Refer to the caveat, CSCsd69608, for details. To access this caveat, see the Using Bug Toolkit, page 19.

- **To launch CRS Editor on a Microsoft Vista Ultimate system**

  If case of problems in lauching Cisco CRS Editor, please perform the following steps:

Step 1 Go to **Start > Programs > Cisco CRS Editor**.

Step 2 Right-click and choose **Properties.**

Step 3 In the Compatibility tab, check the **Run this program as an administrator** checkbox.

Once this setting is done, launch Cisco CRS Editor.

Refer to the caveat, CSCsl00444, for details. To access this caveat, see the Using Bug Toolkit, page 19.

- **Requirements for Cisco CRS servers in a high availability deployment**—The Cisco CRS servers 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.

Refer to the caveat, CSCsk19574, for details. To access this caveat, see the Using Bug Toolkit, page 19.

- **Conference Restriction for virtual agent**—A virtual agent cannot use the Conference feature on the Cisco Unified IP Phone 7970.
- **Supervisor sometimes cannot monitor calls**—If Cisco CRS is deployed with Unified Communications Manager 6.0 and a supervisor is sometimes unable to monitor the calls of an agent, disable the Advertise G.722 Codec option for the phone of the agent. (You disable this option on the Phone Configuration page in the Unified CM Administration application). The Cisco Agent Desktop does not support the G.722 codec.
- **Detailed Call, CSQ, Agent report CPU resource consumption**—The Detailed Call, CSQ, Agent report can consume significant CPU resources. To avoid this issue affecting your call center operations, run this report for a small time range at off-peak hours.
- **CPU spikes during scheduled purging of historical reports and some calls are aborted**—If you are running McAfee VirusScan, a CPU spike may occur during scheduled purging of historical reports and some calls may be aborted. To workaround this issue, take these steps to exclude the c:\program files\wfavvid directory from VirusScan OnAccess protection:
  a. Right-click the VirusScan icon in the Windows system tray and select the OnAccess Scan Properties menu.
  b. In the VirusScan On-Access Scan Properties dialog box, click the default processes icon in the left panel.
  c. Choose the **Detection** tab, and click the **Exclusions** button under “What not to scan.”
  d. In the Set Exclusions dialog box, click the **Add** button.
  e. In the Add Exclusion Item dialog box, enter **c:\program files\wfavvid** under “What to exclude by name/location.”
  f. In the Add Exclusion Item dialog box, check the Also exclude subfolders check box.
  g. Click **OK** as needed to exit the Add Exclusion Item dialog box, Set Exclusion dialog box, and VirusScan On-Access protection properties dialog box.
- **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.

- **Historical reporting sessions—**To avoid affecting call processing activities, do not run historical report session with more than 100,000 records during peak hours.
- **Outbound calls processed more slowly—**The Cisco CRS Outbound Preview Dialer uses the Cisco CRS database for initiating and processing outbound calls. If other database-intensive operations, such as generating historical report or running custom queries, are also being performed, processing of outbound calls can be affected. As a result, agents could be in Ready state for longer durations before they are presented with an outbound calls.
- **Support for Cisco Unified Communications Manager Express (Unified CME)—**Cisco CRS 5.0(1) SR1 and later support Unified CME. Refer to the following documents for detailed information:
  - For information about installing Cisco CRS for use with Unified CME, refer to *Cisco CRS Installation Guide*.
  - For information about using Cisco CRS with Unified CME, refer to *Cisco CRS Administration Guide* and the Cisco CRS *Getting Started Guides*.
  - For information about supported Unified CME releases, refer to *Cisco Customer Response Solutions (CRS) Software and Hardware Compatibility Guide*.
  - For information about using Unified CME, refer to *Cisco Unified Communications Manager Express System Administrator Guide*, which is available at this URL:

    http://www.cisco.com/en/US/products/sw/voicesw/ps4625/products_configuration_guide_book09186a00807c5776.html

    Also refer to the "Configuring Interoperability with External Services" chapter in this Administrator Guide:

    http://www.cisco.com/en/US/products/sw/voicesw/ps4625/products_configuration_guide_chapter09186a008084f542.html

Cisco CRS Supported Languages

Cisco CRS supports these languages:

- Brazilian Portuguese
- Danish

- Dutch
- French
- German
- Italian
- Japanese
- Korean
- Simplified Chinese
- Traditional Chinese
- Spanish
- Swedish

Cisco Unified E-Mail Interaction Manager (Unified EIM) and Cisco Unified Web Interaction Manager (Unified WIM) support English, French, German, Italian, and Spanish.

The CAD and CSD guides, the Cisco IP Phone Agent guides, various Quick Reference Cards, and *Cisco CRS Historical Reports User Guide* are available in these languages at this URL:

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

For a detailed list of language localizations that are implemented for different portions of this release, refer to the Cisco Unified ICM/Contact Center Product and System Localization Matrix, which is available at this URL:

http://www.cisco.com/application/vnd.ms-excel/en/us/guest/products/ps1846/c1225/ccmigration_09186a008068770f.xls

Unsupported Configurations for Cisco CRS

Cisco CRS 5.0(2) does not support the following configurations:

- Shared lines for CTI ports and for CTI route points.
- Call transfer from SDL IntelliDesk console software is not supported with Unified CCX.
- Cisco CRS does not support Backup and/or Restore operation if the network share location has to be accessed over WAN.
- Expansion servers, except for automatic speech recognition (ASR) or text-to-speech (TTS), which must be separate, dedicated servers.
- Cisco CRS does not support the IBM Integrated Management Module (IMM).

Caution Expansion servers where the Database, Monitoring, or Recording components are running on separate servers are not supported.

Unsupported and Supported Actions for Cisco CRS 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 CRS Agents

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

- **Barge**
- **cBarge**
- **DirTrfr**
- **DND**
- **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

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

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

Note All agents that currently have the CRS 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 CRS extension assigned to multiple devices.
- Configuring the same CRS extension in more than one device profile, or configuring the same CRS extension in any combination of device profiles and devices. (Configuring an CRS extension in a single device profile is supported.)
- In the Unified CM Administration Directory Number Configuration web page for each CRS line, setting Maximum Number of Calls to a value other than 2.
- In the Unified CM Administration Directory Number Configuration web page for each CRS line, setting Busy Trigger to a value other than 1.
- Configuring a Cisco Unified IP Phone with Secure Real-Time Protocol (SRTP) for use in silent monitoring and recording.
- No Cisco Call Manager device can be forwarded to the CRS extension of an agent.
- The CRS 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 CRS extension of an agent.
- Configuring the Unified CM intercom feature.
- Configuring the hold reversion feature.

Unsupported Features in Unified CM

The following Unified CM features are not supported by Cisco CRS 5.0(1). These features are disabled by default and should not be enabled for Cisco CRS. For more information about these features, refer to the Unified CM documentation.

- Block External to External Transfer.
- Agent extensions and CTI port extensions in different partitions.

All agent extensions and CTI port extensions must be in the same partition.

- "DSCP IP CTIManager to Application" service parameter.

  You can enable this service parameter for Unified CM but it does not affect Cisco CRS.

- "Advanced Ad Hoc Conference Enabled" service parameter.
- 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 Unified CM service parameters Path Replacement Enabled and Path Replacement on Tromboned Calls to False.

- Forced Authorization Code and Client Matter Code.

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

- Multilevel precedence and preemption (MLPP).

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

In addition, do not use Unified CM Administration to add or change CTI ports or route points that are used by Cisco CRS or application users that are created by Cisco CRS.

Scalability Requirements

Table 2 shows the maximum capacities for various Cisco CRS 5.0 items and servers for an inbound HA system (2 server cluster), which has the most capacity. The supported call rate Busy Hour Call Completions (BHCC) on a given platform will depend on the number of IVR Ports and the average call duration.

Actual capacity depends on the total server points that are determined by profiling testing. In addition, the maximum busy hour call completion (BHCC) rate on a server is limited by the number of configured CTI ports and the use of other features.

The Unified CME column shows maximum capacities for any Unified CME deployment. The actual capacity depends on the type of server on which Cisco CRS is installed.

Table 2 Cisco CRS Release 5.0 Maximum Capacities

Cisco CRS Item	MCS-7845	MCS-7835	MCS-7825	MCS-7816	Unified CME
Agents	300	150	100	75	50
BHCC	4,000	2,000	2,000	2,000	1,000
IVR Ports	300	150	100	75	50
ASR Ports	100	50	50	50	25
TTS Ports	160	40	40	40	25
VXML Ports	80	40	40	40	25
Contact Service Queues	150	25	25	25	50
Skills	150	150	150	150	150
Supervisors	32	15	10	8	10
Record/Monitor Sessions	64	32	32	32	32
HR Sessions (operating hours)	16	10	10	10	2

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 CRS 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 CRS 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 CRS 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 CRS 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 CRS Stats real-time report shows the call as dequeued. If a call is dequeued from CSQ1 and is eventually handled by CSQ2, the CSQ CRS 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 CRS Stats report shows the call as handled for CSQ1 and dequeued for all other CSQs.

Caveats

This section includes the following topics:

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.

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 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 19.

Table 3 Open Caveats

Identifier	Headline and Bug Toolkit Link
CSCsf03272	Automated Attendant dial by extension to SCCP phone forward
CSCsg15699	Stopping CRS Node Manager service takes about 2 minutes
CSCsh20355	Unified CCX does not respond to Open Receive Channel for 15 seconds
CSCsh72503	Request to enhance Japanese to improve the pronunciation of numbers
CSCsh82102	Tab key function inefficient on ASR Provider page
CSCsi07835	New incoming calls not accepted if database is down
CSCsi22387	Calls Stuck in queue because of agent actions and wrap-up code not designed
CSCsi23713	Exception seen in Historical Reports application
CSCsi26011	CRS 5.0 log catalog should reflect new name ACD
CSCsi34587	Memory consumption keeps increasing when CSQs page is loaded
CSCsi34628	Route calls when CRS is down
CSCsi49504	Showing extra node in cluster after removing a node and adding a new node
CSCsi53250	CDA and CAD throw errors after disaster/recovery of 2 node system
CSCsi55739	Cannot Create CTI Ports on node 2 while adding it to existing node 1
CSCsi59413	The SQL database on 75 agents test bed reached the SUSPECT MODE after upgrade
CSCsi59975	Application Administration error on resynch not able to create ports is vague
CSCsi68650	Agent does not get any message while logging out even when call is active

Table 3 Open Caveats (continued)

Identifier	Headline and Bug Toolkit Link
CSCsi78765	ArchiveManager remains out of service after rebooting a node
CSCsi78765	ArchiveManager remains out of service after rebooting a node
CSCsi85360	Out of memory when 42,000 single field or 25,000 6 field records are imported
CSCsi85441	Add node to cluster without previously removing it
CSCsi85446	stopBootstrapService() does not stop copying files
CSCsi85448	Restore original bootstrap data after add to cluster failure
CSCsi96463	If Agent State Summary and Agent State Detail reports are run, deadlock occurs
CSCsi98560	Upload processing gets stuck in Already Processing loop
CSCsj01591	Back up with tape in high availability deployment fails
CSCsj04216	Out of Memory error in Config manager message writer on 75 agents test bed
CSCsj04305	Detailed Call CSQ Agent report takes too long to run
CSCsk38683	Editor Install wizard - Version information displayed incorrectly
CSCsk78269	EIM / WIM Configurations accept wrong password and username
CSCsk94238	Cancel functionality not uniform across appadmin pages
CSCsk94768	Backup > User can define a non existing path and no validation done
CSCsk97739	System Info from About Menu in Historical Rprt clt gives error in Vista
CSCsk97743	unable to schedule report on Vista using HR scheduler
CSCsk98155	Validation ignored in Restore page
CSCsk98197	Appadmin returns a blank page if invalid restore location is provided
CSCsk98256	Failed Getting the Session,Session is NULL exception thrown.
CSCsl06975	SIP CAD Agent stuck in Not Ready State
CSCsl09736	No message seen after upgrade of First Node in HA
CSCsl13258	License Information is not reflected on Second Node of an HA IP IVR syst
CSCsl14909	On Abandoned Call Detail Report, Call Abandon time does not show month
CSCsl17028	License validation not done.
CSCsl18226	Password encrypted twice in appadmin login page.
CSCsl20384	Error seen while trying to Re-use JTAPI and RMCM user

Table 3 Open Caveats (continued)

Identifier	Headline and Bug Toolkit Link
CSCsl21850	Restore fails at 79% HA setup
CSCsl27904	Invalid agent in the Call history
CSCsl27909	CAD stuck in talking after Outbound and ICD consult on agent phone
CSCsl28094	Enhanced package supports Outbound
CSCsl29710	Data truncation exception if field max len is more than DB column size
CSCsl29879	No valid message when 5.0(2) user with Std license tries to use CAD
CSCsl32390	Using Help does not work on traditional chinese HRC client
CSCsl34270	Log message are not clear for restore failure
CSCsl34489	Trying to add node 2 to a cluster without HA license returns an error
CSCsl35990	Call stuck in offering state on CAD
CSCsl36833	Install guide should have info about Unified CCX Server host name
CSCsl37232	Blind Transfer second leg of call, Call ANI is reported as the CTI port
CSCsl37275	Second call from AA does not appear on CAD if agent is in talking state
CSCsl39506	MIVR logs have user credentials displayed
CSCsl39176	Unable to do Recording on CAD\CSD (7960) with CME deployment
CSCsl41389	Normal view and Expanded view doesnt work in Trace configuration page
CSCsl41534	CDA installed on CRS Server is not seen in Add/Remove programs.
CSCsl41541	No way to replace missing/corrupted CDA files on CRS Server
CSCsl41852	CSD does not show IPPA agent on call when talking with a IPPA agent
CSCsl41901	CSD - Talking time increases after agent hangs up call
CSCsl42647	ACSR:Agent xhanges extn:report shows old data with new extn for
CSCsl42657	Some agents extensions are missing
CSCsl42669	ACSR:Agent call summery -conference+ACD+NonACD call scenario
CSCsl42672	Blank report generated when servers are not sync for future date+time
CSCsl42691	CAD report: not according to the CAD help guide
CSCsl42707	ACSR:Non ICD agent initaited call Transferred to RP- wrong OB value

Table 3 Open Caveats (continued)

Identifier	Headline and Bug Toolkit Link
CSCsl45617	CRSInstaller does not support hostnames more than 15 characters.
CSCsl69813	Installer showing undesirable behavior

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 19.

Table 4 Closed Caveats

Identifier	Headline and Bug Toolkit Link
CSCsd18349	Application Administration login fails due to unhandled AXL Exception in login page
CSCsd42186	Incorrect CCD and CRD record linkage
CSCsd47342	Changed Unified Communications Manager during cluster setup created Application Administration menu with empty content
CSCse57174	Missing error when creating CallControlGro
CSCse66307	CRS Installation enhancements
CSCsi27056	Supervisor and CAD Installation
CSCsj01746	Unified CCX Historical Reporting client and Scheduler generating security events on DC Directory

Documentation Updates

The following section provides documentation changes that were unavailable when the Cisco CRS 5.0 documentation was released:

Documentation Updates for *Cisco CRS Getting Started with Unified Contact Center Express Guide*

This section includes updates that apply to *Cisco CRS Getting Started with Unified Contact Center Express Guide* available at the following URL:

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

Update to the "Features Enabled by Product Licensing" Chapter

The following update applies to the "Cisco CRS Subsystems Enabled by Product Licensing" table:

Unified ICME system - Not available in the Standard, Enhanced, or Preminum license.

Documentation Updates for *Cisco CRS Administration Guide*

This section includes updates that apply to *Cisco CRS Administration Guide* available at the following URL:

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

Update to the Managing Prompt Files section, page 255

The following new warning is added.

Warning **You should upload the files for prompts, grammars, scripts, and documents only through Unified CCX Administration Web Interface using the procedure mentioned in this section. If you copy the files for prompts, grammars, scripts, and documents to the file system directly, then on restart of node manager or engine, there will be loss of files as the data does not reside in the Repository Data Store (RDS).**

Update to the Introducing Cisco Customer Response Solutions chapter

The following new note added in Step 3 of the Uploading Licenses section.

Note While upgrading from a previous release, if there are multiple licenses, it is recommended to zip all the multiple .lic files into a single .zip file and then upload the .zip file.

Update to the "Provisioning Telephony and Media" Chapter

The following note applies to the "Resynchronizing the Cisco JTAPI client" section. Add this Note before the procedure to resynchronize the JTAPI client.

Note Please ensure to stop the Cisco CRS Node manager from the windows service manager before uninstalling the JTAPI client manually. If you have uninstalled the JTAPI client manually without stopping the Cisco CRS Node manager, then reboot the server before performing the JTAPI resync from Appadmin.

Update to the "Configuring Cisco CRS Outbound Preview Dialer" Chapter

The following note applies to the "Importing Contacts for a Campaign" section:

Note While importing the contacts file for a campaign, use only comma-separated plain text file with .txt extension. The contacts file should be ASCII-encoded or UTF-8 encoded if it contains special characters (for example, if the contact names are in Chinese, Russian, Japanese and so on).

The following update applies to the "Resetting Contact States at Midnight" topic in the "Agents Receive Outbound Calls" section. A new Note is added on Pg 405 after the sub-bullet 'Dialing list records with a call status of Closed or Max_Calls are deleted.

Note Please note that the records marked as closed today will be deleted the next day at midnight. For example, the records closed on 4th June will be deleted on 5th June at midnight.

Update to the "Backing-up and Restoring Data" Chapter

The following note has been added at the end of the 'About the Backup and Restore Application' section.

Note The Backup and Restore operation does not backup and restore User Capabilities if Unified CCX is deployed with Unified CM.

Update to the "The Applications Menu" Chapter

The following note applies to the "Prompt Management" section in the "The Applications Menu" chapter:

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

Updates to the "The Tools Menu" Chapter

The following updates apply to the "The Real-time Snapshot Config Menu Option" section in the "The Tools Menu" chapter:

- The description of Administrator User ID should state that this field is for is the unique identifier of the administrator-level user of the server on which the wallboard software is installed.
- The note regarding configuring wallboard settings should state that these Wallboard settings enable the WallboardDataWriter to update the host file on the wallboard software system with the CDS master IP address whenever CDS mastership changes in CRS.
- The following procedure replaces the wallboard set up procedure that is described in the "The Real-time Snapshot Config Menu Option" section in the "The Tools Menu" chapter:

Procedure

Step 1 On the wallboard client desktop, use the standard Windows Computer Management feature to create a new Windows NT account or a new local user, called CiscoWbUsr.

Make a note of the password for the new CiscoWbUsr account.

Step 2 On the Cisco CRS server, change the password for the CiscoWbUsr account to be the same as the password on the wallboard client desktop.

Step 3 From the wallboard client desktop, log in as CiscoWbUsr.

Step 4 Install the wallboard software on the wallboard client desktop.

Step 5 Create a system DSN on your Windows 2000 Professional or Windows 2000 server by choosing **Start> Programs > Administrative Tools > Data Sources (ODBC)**.

The OBDC Data Source Administrator window opens.

Step 6 Click the **System DSN** tab and click **Add**.

The Create New Data Source window opens.

Step 7 In the Create New Data Source window, choose a SQL Server driver and click **Finish**.

The first Create a New Data Source to SQL Server window opens.

Step 8 In the first Create a New Data Source to SQL Server window, perform the following tasks:

a. In the Name field, specify a name for this DSN (for example, Wallboard.)

b. In the Description field, enter a descriptive name.

c. In the Which SQL Server field, enter **CRSServer\CRSSQL**.

Step 9 Click **Finish**.

The second Create a New Data Source to SQL Server window opens.

Step 10 In the second Create a New Data Source to SQL Server window, click the **Windows NT server authentication** radio button.

Step 11 Click **Next**.

The third Create a New Data Source to SQL Server window opens.

Step 12 In the third Create a New Data Source to SQL Server window, change the default database to db_cra and click **Next**.

The fourth Create a New Data Source to SQL Server window opens.

Step 13 In the fourth Create a New Data Source to SQL Server window, click **Finish**.

The ODBC Microsoft SQL Server window opens.

Step 14 In the ODBC Microsoft SQL Server window, click **Test Data Source**.

If the phrase `Test completed successfully` is returned, click **OK**.

If the test is unsuccessful, return to the configuration sequence and fix any errors.

Documentation Updates for *Cisco CRS Installation Guide*

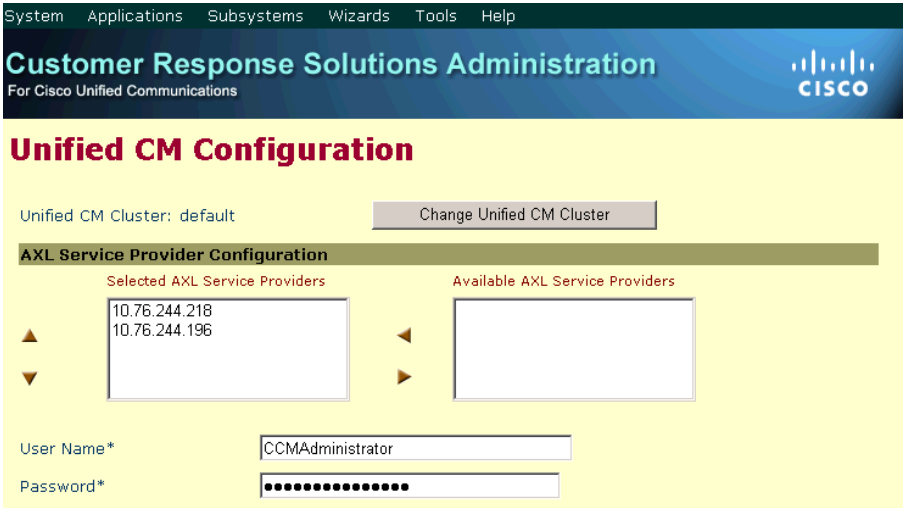
This section includes updates that apply to *Cisco CRS Installation Guide* available at the following URL:

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

- Note on Page 48 to be replaced by the following note:
  - A cluster profile contains the LDAP configuration data that is used by the CRS 4.x system and stored in the Cisco Call Manager (CCM). This unique profile name helps Cisco CM identify the CRS and maintain its configuration data. You might need to choose an existing cluster profile from the Choose an existing cluster profile or enter a new profile drop-down list in the following instances:
    a. When you completely reimage your CRS 4.x system and reinstall the same version of CRS and intend to reuse the existing LDAP configuration data.
    b. When you are asked to select an existing profile on the User Configuration Migration page during the restore operation while upgrading your CRS 4.x system to CRS 5.x or Unified CCX 7.x.
  - If you entered an existing cluster profile, information from that cluster profile will appear in subsequent installation windows, where appropriate. You can accept that information or change it as needed.
- The following update applies to the “Performing the Initial Setup of CRS” chapter:
  - Include the following new information in the beginning of Step 7 of the “Performing the Single Node Setup Procedure for a Deployment with Unified CM” section:

    The Cisco CRS 5.0(2) AXL Service Provider Configuration area for a Cisco CM (CCM) Cluster setup displays a list of IP addresses of the AXL Service Providers sorted by priority, where the CCM Publisher is listed first followed by the CCM Subscribers. During the AXL Service Provider

Authentication in the CCM Cluster deployment, the priority is given to the CCM Publisher. However, if the CCM Publisher is offline or not available, the next available Unified CM Subscriber is chosen for user authentication. You can also change the priority of the AXL Service Providers, if necessary, by selecting the IP address of an AXL Service Provider in the list and clicking the up and down arrow.



Note As per the CCM design, even if the CCM Publisher is listed after a CCM Subscriber, the system will use the CCM Publisher for authentication. However, if the CCM Publisher is offline, the CCM Subscriber will use its own database to authenticate.

- The following update applies to the “Patching Cisco CRS” chapter:
  - In the “Before You Begin” section, include a warning:

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

- 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.
- 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 Microsoft SQL Server 2000 with High Availability

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

- 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.

Documentation Updates for *Cisco CRS Historical Reports User Guide*

This section includes updates that apply to *Cisco CRS Historical Reports User Guide* available at the following URL:

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

The following update applies to the "Descriptions of Historical Reports" chapter:

- In the "Abandoned Call Detail Activity Report" section, in the Call Routed CSQ field, change the description to:

  Name of one of the CSQs to which the call was queued. Displays '...' to indicate there are more than one CSQ to which the call was abandoned.
- In the "Agent Detail Report" section, in the Other CSQs field, change the description to:

  Name of one of the CSQs to which the call was queued. Displays '...' to indicate there are more than one CSQ to which the call was queued.
- In the "Aborted and Rejected Call Detail Report" section, in the Contact Type field, add:

  Outbound Preview as one of the call types.
- In the "Call Custom Variables Report" section, in the Contact Type filter parameter, add:

Outbound Preview as one of the specified contact types.

- In the "Detailed Call by Call CCDR Report" section, change:

  Contact T to Contact Type

  Contact D to Contact Disposition

  Originator T to Originator Type

- In the "Detailed Call by Call CCDR Report" section, in the Contact Type field, add:

  6-Outbound Preview as the last 'type of call'.

- In the "Detailed Call by Call CCDR Report" section, in the Contact Type filter parameter, add:

  Outbound Preview as one of the specified contact types.

- In the "Detailed Call, CSQ, Agent Report" section, in the Contact Type filter parameter, add:

  Outbound Preview as one of the specified contact types.

Documentation Updates for *Cisco CRS CTI Protocol Developer Guide*

This section includes updates that apply to *Cisco CRS CTI Protocol Developer Guide*. For more details, access the following URL:

www.cisco.com/go/developersupport

The following update applies to the "Client Application Development Guidelines" chapter:

- In the Debugging a CRS Client Program section, include a note in the High-Level (Text) trace example:

Note If the ANI is empty, use the CallingDeviceID instead of ANI.

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

This section includes updates that apply to *Cisco CRS Scripting and Development Series: Volume 1, Getting Started with Scripts* available at the following URL:

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

- A new section titled "Uninstallation of Cisco CRS Editor" is now included.

Note The Editor uninstallation should not be done through the Add Remove programs window. You will need to run the Editor installation exe again on your desktop.

To uninstall the Cisco CRS Editor program, run the CiscoCRSEditorInstall.exe and do the following:

Step 1 In the maintenance window, select the "remove" radio button and click next

Step 2 In the "remove program" dialog-box, click the "remove" button. This will begin the uninstallation procedure of the Cisco CRS Editor application.

- 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 Unified Communications Manager, 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 Unified Communications Manager.

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

  Adding a 2 second delay is a best practice when you have a script that performs a 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.

Documentation Updates for *Cisco CRS Step Editor Reference Guide*

This section includes updates that apply to *Cisco CRS Step Editor Reference Guide* available at the following URL:

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

Note in Http Contact, E-mail Contact, and Database Palette Steps

The descriptions of the Http Contact, the E-mail Contact, and the Database palette steps 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 CRS 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 runable in your CRS scripts only if you have purchased the Unified IP IVR or Unified CCX Premium license options."

Note in Upload Document Step

The following note should be added to the Upload Document step description in the PDF version of the *CRS Step Editor Reference Guide* that you access from Cisco CRA Administration:

"Note: The Upload Document step will not work unless the user specified in the step is an authenticated user. Use the Authenticate User step before the Upload Document step to authenticate the user."

New Step Features

The following steps include functionality that is not documented in the *CRS Step Editor Reference Guide*:

- The Get Trigger Info step has new context parameters. The context parameters allow you to get trigger parameters and store them in a workflow. They work with the TriggerApplication step, which enables you to pass parameters to a triggered application.
- A new Trigger palette has been added. The Get Trigger Info step has been moved from the General Steps palette to this new palette.
- A new step called TriggerApplication has been added to the Trigger palette. This step lets you specify an application that needs to be triggered. It includes these parameters:
  - General Tab:

    Application name—Name of application to trigger

    Language—Language in which to trigger application

    Timeout—Maximum time to wait if unable to trigger the application because its configured maximum number of sessions has been reached

    Synchronous (Yes/No)—”Yes” specifies whether the application is executed as part of the same thread, which means that control will return only when the application being triggers has completed. “No” specifies that the application is triggered in parallel to the current application and control is returned immediately after the application is triggered.

    Interruptible (Yes/No)—Specifies where application execution is interruptible by external event.
- Context Tab—You can add context parameters (name - value pairs). These parameters can be variables or expressions that are stored in the trigger and are retrieved in the workflow that runs for the application by using the GetTriggerInfo step and the Context Parameter tab.
- A new step called Do has been added to the General palette. This step takes an expression as a parameter and evaluates it. It enables execution of user-defined code. It works similarly to the Set step does but it does not return a value.

Documentation Updates for *Cisco Customer Response Solutions Servicing and Troubleshooting Guide*

This section includes updates that apply to *Cisco Customer Response Solutions Servicing and Troubleshooting Guide* available at the following URL:

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

Troubleshooting Tips

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

  Step 10. Verify that there is network connectivity to the CRA server.

Backup and Restore Troubleshooting Tips

The following tip should be added to the "Backup, Restore, and Update Problems" section in *Cisco Customer Response Solutions Servicing and Troubleshooting Guide*:

Failure when Updating Outbound Subsystem Config

Symptom

Failure when updating Outbound Subsystem config or other config using CRS Administration pages of Node 1, in a 5.0(2) cluster that got upgraded from 5.0(1) SR1. The error shown is **ConfigException occurred**.

Condition

This issue happens in 5.0(2) HA cluster that got upgraded from 5.0(1)/5.0(1)SR1 HA cluster. This happens due to the SQL Server Linked Server used for Config Datastore replication between two nodes, resets on upgrade to 5.0(2) to point to itself. This means that Node 1 SQL Server LinkedServer points back to itself, instead of pointing to Node 2.

Recommended Action

Deactivate the Config Datastore and Historical Datastore from CRS Administration -> Control Center -> Component Activation pages on Node 2 and then reactive them. This sets back the Node 1 SQL Server Linked Server to point back properly to Node 2. After this, the Config updates are possible.

Restore Error in High Availability Deployment When Tape Drive Moved

Message

When using a tape device in a high availability deployment and clicking **Restore Now**, this message appears: "Unable to perform Restore, please check logs for more details."

Cause

In a high availability deployment, a backup is performed on a tape drive that is connected to one node. Then the tape drive is moved to the other node and the restore operation is performed on that node.

Action

Perform the Restore operation on the node on which the Backup was performed.

Restore Error in High Availability Deployment When Backup and Restore Performed on Different Nodes

Message

A back up from a tape drive fails at 98% with this message: "Please make sure that the Tape drive is connected to the machine and verify if the tape is properly inserted."

Cause

Tape drive is connected to one node, but the backup was taken from the other node.

Action

Perform backup from the node on which tape drive is connected.

"The page cannot be displayed" Error in Cisco CRS Administration When Trying to Upload a Large Prompt .wav File

Message

The message "The page cannot be displayed" appears in Cisco CRS Administration when you try to upload a large prompt .wav file.

Cause

The .wav file is large.

Action

Manually move the file to the repository to resolve the issue.

Cisco CRS Administration Troubleshooting Tips

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 the add back the trigger
2. Restart CRS node manager.

CRS Engine Troubleshooting Tips

It is normal for the following CRS subsystems to be in Partial service or Out of 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 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
```

VoIP Monitor Troubleshooting Tips

The following tip should be added to the "VoIP Monitor Problems" section:

VoIP Monitor tab of the CDA gives an error

Symptom

With both the CCM and CME deployments, the VoIP Monitor tab of the CDA gives error messages if not properly configured.

Error Message

Error Reading from Directory services.

Recommended Action

For the CCM deployment, associate the phones to the RmCm application user in Unified CM.

For CME deployment, execute the following commands on the CME router to see the configured phones under VoIP tab of the CDA:

```
Cisco2800(config)#ixi transport http
Cisco2800(conf-xml-trans)#response size 64
Cisco2800(conf-xml-trans)#no shutdown
Cisco2800(conf-xml-trans)#exit
```

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

This section includes updates that apply to *Cisco CRS Historical Reporting Administrator and Developer Guide* available at the following URL:

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

- 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 note applies to the "How can a report on reason codes be generated?" question in the "Frequently Asked Questions" chapter in *Cisco Customer Response Solutions Historical Reporting Administrator and Developer Guide*:

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

Documentation Updates for *Cisco Unified Contact Center Express Solution Reference Network Design*

The following changes apply to *Cisco Unified Contact Center Express Solution Reference Network Design* available at the following URL:

www.cisco.com/go/srnd

- In the "Monitoring and Recording Components" section in the "Cisco Unified Contact Center Express Solution Architecture for Cisco Unified Communications Manager" chapter, the following paragraph should be removed:

  "A Unified CCX cluster can have up to five Monitoring components with one of them running on the logical Recording component. The Recording component requires a co-resident Monitoring component (but only

one—regardless of whether the Recording component is simplex or redundant). Four additional Monitoring components can be deployed if SPAN port monitoring at remote agent sites is needed."

- Replace the "Scalability" section in the "Cisco Unified Contact Center Express Solution Architecture for Cisco Unified Communications Manager" with the following text:

  "Outbound supports different capacities and limits when compared to inbound agents. Refer to the Configuration and Ordering Tool for more details."

- The "Unified CCX General Rules for Design" section in the "Cisco Unified Contact Center Express Deployment Models" chapter mentions *Cisco Interaction Manager integration with Unified CCX SRND*. The title of this document is C*isco Unified Web and E-Mail Interaction Manager Solution Reference Network Design (SRND) Guide for Unified Contact Center Express*, and it is available at this URL:

  http://www.cisco.com/en/US/products/ps7236/products_implementation_design_guides_list.html

- In the "Single-Server Non-High Availability Deployment Model—Cisco Unified Communications Manager Integration" section in the "Cisco Unified Contact Center Express Deployment Models" chapter, add the following statement after "This deployment model can also support SPAN port monitoring for agents on the same VLAN segment as the Unified CCX server":

  "This deployment model does not incorporate additional remote Monitoring components, so no SPAN port monitoring for agents at remote sites using IPPA or low-end phones can be performed."

- In the "Other Design Considerations" section in the "Cisco Unified Contact Center Express Deployment Models" chapter, the following statement should be removed:

  "Moving the database to an expansion server will increase the call reporting capacity."

- In the "Silent Monitoring Providers" section in the "Bandwidth, Security, and QoS Considerations" chapter, replace "Unified CCX 5.0 supports only one VoIP Monitor service, which is installed on the Unified CCX server" with the following text:

"In a deployment without high availability, Unified CCX 5.0 supports one VoIP Monitor service, which is installed on the Unified CCX server. When high availability is deployed, two VoIP Monitor services are installed, one on each Unified CCX server."

- The following updates apply to the "QoS Classifications for Unified CCX Interfaces" table in the "Bandwidth, Security, and QoS Considerations" chapter:
  - Change "HTTP" to "HTTP (CRS administration page and IPPA interface)." The Port value in this row should be TCP 6293. The "DSCP Marking" value in this row should be AF21.
  - In the "AXL to Unified CM for User configuration and authentication (SSL)" row, the Port value should be TCP 8433. The "DSCP Marking" value should be AF21.

Documentation Updates for *Cisco CRS Port Utilization Guide*

This section includes updates that apply to *Cisco CRS Port Utilization Guide* available at the following URL:

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

Update to the "Cisco Unified IP IVR Port Utilization" table

Please include the following two ports to the table:

1. Protocol - HTTP; Destination port - TCP 8017; Remote Device - Administration Tomcat instance
2. Protocol - HTTP; Destination port - TCP 8009; Remote Device - CRS EngineTomcat instance; Notes - Required to serve HTTP contacts and grammars to MRCP servers for Speech Recognition

On Line Help Updates

Some steps in various Backup and Restore help windows in Cisco CRS Administration do not appear. You may notice the issues that are described in this section if you choose **Tools > Troubleshooting Tips > Backup, Restore**, choose **Update Problems**, and then click **Search**.

Missing steps in "Restore failed for a one-node system" help

The help for "Restore failed for a one-node system" should include the following information for Step 1 and Step 2:

1. If you have a copy of original ClusterData folder:
   a. Stop the CRS Node Manager service.
   b. Remove the C:\Program Files\wfavvid\ClusterData folder.
   c. Copy the original ClusterData folder to the C:\Program Files\wfavvid\ folder.
   d. Start the CRS Node Manager Service.
   e. Run the Restore setup procedure.
2. If you do not have a copy of original ClusterData folder:
   a. Reimage the CRS server using the Windows 2003 Server operating system.
   b. Reinstall Cisco CRS.
   c. Run the Restore setup procedure.

Missing steps in "Restore failed on a two-node system" help

The help for "Restore failed for a two-node system" should include the following information for Step 2 and Step 3:

2. You must have a copy of ClusterData folder saved on both nodes:
   a. Remove the C:\Program Files\wfavvid\ClusterData folder on both nodes.
   b. Copy the original ClusterData folder to the C:\Program Files\wfavvid folder on both nodes.
3. If you do not have a copy of ClusterData folder saved on both nodes:
   a. Reimage both servers using the Windows 2003 Server operating system.

b. Reinstall Cisco CRS on both servers.

c. Run the Restore setup procedure.

Missing steps in "Restore failed on a two-node system that was re-imaged" help

The help for "Restore failed for a two-node system that was re-imaged" should include the following information for Step 2 and Step 3:

2. If you have a copy of ClusterData folder saved on both nodes

   a. Remove the C:\Program Files\wfavvid\ClusterData folder on both nodes.

   b. Copy the original ClusterData folder to the C:\Program Files\wfavvid folder on both nodes.

   c. On the second node, run regedit and make sure that "com.cisco.cluster.node.id" is set to 1 for the following:

      \HKEY_LOCAL_MACHINE\SOFTWARE\Cisco Systems, Inc.\CRS\Properties\application.MADM.properties

      \HKEY_LOCAL_MACHINE\SOFTWARE\Cisco Systems, Inc.\CRS\Properties\application.MADM.properties

      \HKEY_LOCAL_MACHINE\SOFTWARE\Cisco Systems, Inc.\CRS\Properties\application.MADM.properties

      \HKEY_LOCAL_MACHINE\SOFTWARE\Cisco Systems, Inc.\CRS\Properties\application.MADM.properties

3. If you do not have a copy of the ClusterData folder saved on both nodes:

   a. Reimage both servers using the Windows 2003 Server operating system.

   b. Reinstall Cisco CRS on both servers.

   c. Run the Restore setup procedure.

Missing steps in "Some RmCm configuration is missing after upgrade" help

The help for "Some RmCm configuration is missing after upgrade" should include the following information for Step 1:

1. Open the SQL query analyzer and take these actions:

   a. Run SELECT * FROM db_cra.dbo.profileIDMapping

      You should see two records (one from 4.5 and the default for 5.0). Note that the CRS4.5_profilename, which is not the default. You will need this information.

b. Run DELETE FROM db_cra.dbo.profileIDMapping, where profileName='CRS4.5_profilename'.

   Make sure that you see one row affected in the result window after executing this command.

c. Run UPDATE db_cra.dbo.profileIDMapping SET profileID =1.

   Make sure that you see one row affected after executing this command.

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

Obtaining Technical Assistance

Cisco Technical Support provides 24-hour-a-day award-winning technical assistance. The Cisco Support website on Cisco.com features extensive online support resources and is available at this URL:

http://www.cisco.com/en/US/support/index.html

In addition, if you have a valid Cisco service contract, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not have a valid Cisco service contract, contact your reseller.

Submitting a Service Request

The TAC Service Request Tool is located at this URL:

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

For more details, refer to the *CRS Troubleshooting Guide* at the following URL:

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