



# Release Notes for Cisco Customer Response Solutions 5.0(1)

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## February 2011

These release notes describe new features, important information, and caveats for Cisco Customer Response Solutions (Cisco CRS) Release 5.0(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](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(1) see the “[Caveats](#)” section on page 18.



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## 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).

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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(1) provide a variety of new features and functions, including:

- Compatibility with Unified Communications Manager 5.1 and 6.0.
- Compatibility with Unified Communications Manager Express 4.2.
- Support for the Windows 2003 Server operating system.
- Support for a deployment with one server for high availability.

- Support for Cisco Telepresence Virtual Agent Solution, which enables enterprises to create a live, face-to-face interaction with customers over the network.
- Enhanced installation, upgrade, and patching procedures through simplified wizards.
- New historical reports.
- New log collection tool and support tool for serviceability.
- Cisco Unified E-Mail Interaction Manager (Unified EIM) and Cisco Unified Web Interaction Manager (Unified WIM).
- Cisco Unified CCX Outbound Preview Dialer (Outbound), which enables configuring contact centers for automated Outbound activities and allows agents who are not busy with inbound calls to perform outbound calls.
- Wrap-up feature, which provides wrap-up data to track the frequency of activities, to identify the account to which a call is charged, and to provide information for other similar situations.
- New Backup and Restore application now embedded in the Cisco CRS Administrator. You do not need to install it separately on a remote server.

# 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	<a href="http://www.cisco.com/en/US/products/sw/custcosw/ps1846/tsd_products_support_series_home.html">http://www.cisco.com/en/US/products/sw/custcosw/ps1846/tsd_products_support_series_home.html</a>
<i>Cisco Customer Response Solutions (CRS) Software and Hardware Compatibility Guide</i>	<a href="http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_device_support_tables_list.html">http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_device_support_tables_list.html</a>

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

Related Information and Software	Document or URL
<i>Cisco Unified CCX Solution Reference Network Design</i>	<a href="http://www.cisco.com/go/srnd">www.cisco.com/go/srnd</a>
Voice and Unified Communications information	<a href="http://www.cisco.com/en/US/products/sw/voicesw/index.html">http://www.cisco.com/en/US/products/sw/voicesw/index.html</a>
Operating system documentation	<a href="http://www.cisco.com/en/US/products/hw/voiceapp/ps378/prod_installation_guides_list.html">http://www.cisco.com/en/US/products/hw/voiceapp/ps378/prod_installation_guides_list.html</a>
Virtual Network Computing (VNC) documentation	<a href="http://www.cisco.com/en/US/products/sw/netmgts/ps2255/index.html">http://www.cisco.com/en/US/products/sw/netmgts/ps2255/index.html</a>
Cisco MCS hardware specifications	<a href="http://www.cisco.com/en/US/products/hw/voiceapp/ps378/products_data_sheets_list.html">http://www.cisco.com/en/US/products/hw/voiceapp/ps378/products_data_sheets_list.html</a>
Cisco Unified Communications Manager documentation	<a href="http://www.cisco.com/en/US/products/sw/voicesw/ps556/tsd_products_support_series_home.html">http://www.cisco.com/en/US/products/sw/voicesw/ps556/tsd_products_support_series_home.html</a>
<i>Cisco Unified CME Administration Guide</i>	<a href="http://www.cisco.com/en/US/products/sw/voicesw/ps4625/products_configuration_guide_book09186a00807c5776.html">http://www.cisco.com/en/US/products/sw/voicesw/ps4625/products_configuration_guide_book09186a00807c5776.html</a>
Telepresence Software	<a href="http://www.cisco.com/en/US/products/ps7074/tsd_products_support_maintain_and_operate.html">http://www.cisco.com/en/US/products/ps7074/tsd_products_support_maintain_and_operate.html</a>
Service releases	<a href="http://www.cisco.com/kobayashi/sw-center/sw-voice.shtml">http://www.cisco.com/kobayashi/sw-center/sw-voice.shtml</a>

## Installation Notes

When you install Cisco CRS 5.0(1), 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. Reboot the server after you disable these applications.

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

[http://www.cisco.com/en/US/products/sw/custcosw/ps1846/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/custcosw/ps1846/prod_installation_guides_list.html)

- Hyperthreading is not supported by Microsoft Windows 2000 and 2003 and is disabled by default in Cisco-provided operating systems.
- Windows 2003 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” section on 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(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](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. For information about Cisco’s policy regarding third-party software, refer to this URL:

[http://www.cisco.com/application/pdf/en/us/guest/products/ps3651/c1037/ccmigration\\_09186a0080207fb9.pdf](http://www.cisco.com/application/pdf/en/us/guest/products/ps3651/c1037/ccmigration_09186a0080207fb9.pdf)

- **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.
- **Requirements for location of Cisco CRS Engine and Database components**—The following guidelines apply to the location of the Cisco CRS Engine and Database components:
  - The Cisco CRS Engine and Database components, in deployments with or without high availability, must be located on the same VLAN.
  - The Cisco CRS Engine and Database components must be located in the same building as the Cisco Unified Communications Manager (Unified CM) servers that are running the CTI Managers with which Unified CCX will be communicating. Other Unified CM nodes within the same Unified CM cluster can be located on other VLANs or across the WAN, for a Unified CM cluster that is split over the WAN.
- **Conference Restriction for virtual agent**—A virtual agent cannot use the Conference feature on the Cisco Unified IP Phone 7970.

- **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](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 plain text file with .txt extension.
- **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](http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_field_notice09186a00808b40b7.shtml)
- **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” section on 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

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.
2. Change the Node IP address information by running Cisco CRS Serviceability Utility by choosing **Start > Programs > Cisco CRS Administrator > Cisco CRS Serviceability Utility**.
3. Run Node manager service.

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



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

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

1. Go to **Start > Programs > Cisco CRS Editor**.
2. Right-click and choose **Properties**.
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” section on 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**


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

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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**


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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.

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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”](#) section on 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\wfvavvid 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\wfvavvid 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](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](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](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](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(1) does not support the following configurations:

- Shared lines for CTI ports and for CTI route points.
- Cisco CRS 5.0(1) 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**

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

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## 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](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

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

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## 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. 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*

<b>Cisco CRS Item</b>	<b>MCS-7845</b>	<b>MCS-7835</b>	<b>MCS-7825</b>	<b>MCS-7815</b>	<b>Unified CME</b>
Agents	300	75	75	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	10	10	10	10
Record/Monitor Sessions	64	32	32	32	32
HR Sessions (operating hours)	2	1	1	1	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 the SetContactInfo step, refer to *Cisco CRS Scripting and Development Series: Volume 2, Editor Step Reference Guide*.

- The historical CSQ reports take into account whether a contact is marked as handled by the SetContactInfo step to determine if a contact is dequeued. The CSQ IP 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, page 19](#)
- [Open Caveats, page 20](#)
- [Closed Caveats, page 24](#)

## 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 and Bug Toolkit Link
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
<a href="#">CSCsi85305</a>	Appadmin goes OOM when trying to display Campaign list
<a href="#">CSCsi31907</a>	Duplicate entries for Gender Default when adding more TTS server
<a href="#">CSCsi34587</a>	Memory consumption keeps increasing when CSQs page is loaded
<a href="#">CSCsi34628</a>	Route Calls When CRS is Down
<a href="#">CSCsi85360</a>	OOM when 42000 single field or 25000 6 field records are imported
<a href="#">CSCsj01591</a>	Back up with Tape in HA fails
<a href="#">CSCsk31077</a>	Outbound contact import is not working
<a href="#">CSCsi27078</a>	CCX5.0:Backup/Restore doesn't work if run from machines other than serve
<a href="#">CSCsi78765</a>	ArchiveManager remains OOS after rebooting a node
<a href="#">CSCsi81983</a>	Reversing the node and then trying to restore passes but data missing
<a href="#">CSCsj01672</a>	Restore fails on HA setup
<a href="#">CSCsg35031</a>	SL: True Update to block application and give warning if SR is downgraded
<a href="#">CSCsh96584</a>	CallBack not reflected in RTR when set in Work - direct xfer case
<a href="#">CSCsi27056</a>	CCX5.0: Supervisor and CAD Installation
<a href="#">CSCsi42408</a>	CAD initiating an xfer of OB call shows incorrect buttons as enabled
<a href="#">CSCsi50794</a>	No ED while ringing and ED incorrect in talking - sp. scenario
<a href="#">CSCsi64592</a>	SL:Agent per Skill per State Rpt on CSD shows Work Ready & Work Not Ready
<a href="#">CSCsi66298</a>	SL:Agent Statistics & Team Agent Statistics show zero for Other Time
<a href="#">CSCsi66899</a>	CAD/CSD auto upgrade gives MSI API error
<a href="#">CSCsi90141</a>	Supervisor workflow does not work for oldest call in queue
<a href="#">CSCsi90163</a>	CAD: Reclassify OB call as Busy/Invalid while in Work failed
<a href="#">CSCsj03988</a>	XFer from CAD fails intermittently

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

<b>Identifier</b>	<b>Headline and Bug Toolkit Link</b>
<a href="#">CSCsh20355</a>	IPCC Express does not respond to Open Receive Channel for 15 seconds
<a href="#">CSCsi84998</a>	ASR channels not available until Restart Node Manager
<a href="#">CSCsh06034</a>	Unskilled Agents Showing on Skill Report When All Skills Chosen
<a href="#">CSCsi59413</a>	The SQL DB on 75 agents test bed reached the SUSPECT MODE after upgrade
<a href="#">CSCsi75873</a>	user search is case sensitive and agent login is case sensitive
<a href="#">CSCsd69608</a>	BInding Order of Cisco Telephony OS WIn2K has 2nd NIC first
<a href="#">CSCsg71062</a>	Reactive debugging workflow specified using http:// is not working
<a href="#">CSCsh21922</a>	Pulling Start Button into Script & Placing it back corrupt the Script
<a href="#">CSCsh45716</a>	CRS Editor does not respond intermittently
<a href="#">CSCsi07835</a>	New incoming calls not accepted if DB down
<a href="#">CSCsj04216</a>	The OOM error in Config manager messag/Writer on 75 agents test bed.
<a href="#">CSCsd58820</a>	Duration in Same State not updated when using the GetReportingStatistic
<a href="#">CSCsi22387</a>	Combination of Conf/Transfer by agent leads to Call stuck in queue
<a href="#">CSCsh56147</a>	Using portscanner on CRS causes engine to crash.
<a href="#">CSCse66307</a>	CRS Install enhancements
<a href="#">CSCsg37133</a>	User must manually Stop and Disable CSA prior to CRS upgrade
<a href="#">CSCsh49996</a>	Getting confusing message while doing downgrade.
<a href="#">CSCsi77536</a>	License Validator javaw.exe using 100% cpu
<a href="#">CSCsi97888</a>	wave files for spanish numbers x1 are incorrect
<a href="#">CSCsj04769</a>	Incorrect customer time in Callback window.
<a href="#">CSCsj01691</a>	Problem with patch installation in a 2 node HA setup
<a href="#">CSCsi98421</a>	Recording files stranded in Staging folder after reboot
<a href="#">CSCsi98491</a>	Install process does not check for SR Installs on client or server
<a href="#">CSCsi98545</a>	AD Linking: Shows error when AD server reaches max search result limit
<a href="#">CSCsi98560</a>	Upload processing get's stuck in "Already Processing" loop
<a href="#">CSCsi98577</a>	Calls with same filename created after recovery to LDAP
<a href="#">CSCsi98583</a>	Reports - Generic msg for when browser session times out
<a href="#">CSCsi98590</a>	Blank spaces are allowed when creating new user

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

Identifier	Headline and Bug Toolkit Link
<a href="#">CSCsi98595</a>	Uploads get stuck in "Invalid handle" loop
<a href="#">CSCsi98597</a>	Exception on voice file closing causes subsequent recordings to be lost
<a href="#">CSCsd42186</a>	Incorrect CCD and CRD record linkage
<a href="#">CSCsg24363</a>	Wrapup data field in ACDR, does not support special characters
<a href="#">CSCsi96429</a>	OOM on HR client due to shared mem when report has > 80K-100 K records
<a href="#">CSCsi96463</a>	If Agent state sum. & agent state detail rpts are run, deadlock occurs
<a href="#">CSCsj01746</a>	IPCCX HRC and Scheduler generating Security events on DC's
<a href="#">CSCsj04305</a>	Detailed Call CSQ Agent Report takes too long to run
<a href="#">CSCsh73789</a>	Cannot enable debugging trace for STEPS_GENERAL subfacility in MIVR
<a href="#">CSCsi49504</a>	Showing extra node in cluster after removing a node and add a new node
<a href="#">CSCsi54154</a>	<option dtmf="*" /> does not work in DTMF VB
<a href="#">CSCsi99630</a>	Voice Browser ignores the vxml attribute xml:base
<a href="#">CSCsi99927</a>	The automatic screen refresh does not work on Intraday / Adherence
<a href="#">CSCsi99935</a>	Column sorting does not work after a manual refresh in Adherence
<a href="#">CSCsi99944</a>	The "All" button is inactive on the Reports/ Agent Productivity screen
<a href="#">CSCsi99963</a>	The CSQ list is not populated by default on the Special Functions screen
<a href="#">CSCsi99967</a>	Every new exception has "Null" in front of the name.
<a href="#">CSCsi99982</a>	Individual report prints in the wrong format
<a href="#">CSCsj03747</a>	In a no redundant Express Database, if the DB fails, data capture stops
<a href="#">CSCsj03760</a>	Login ID is not case sensitive.
<a href="#">CSCsh82102</a>	Tab key function inefficient on ASR Provider page
<a href="#">CSCsi55739</a>	Component Activation Fails When Creating CTI Ports on Node 2
<a href="#">CSCsi59975</a>	Appadmin error on resynch not able to create ports is vague
<a href="#">CSCsh41055</a>	Data in call variable garbled after transfer/conference when in Japanese
<a href="#">CSCsi53250</a>	SL:CDA and CAD throws errors after disaster/recovery of 2 node system
<a href="#">CSCsi68650</a>	SL:Agent does not get any message while log-out even when call is active
<a href="#">CSCsi26011</a>	CRS 5.0 log catalog should reflect new name ACD
<a href="#">CSCsi23713</a>	Exception seen HR application

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

Identifier	Headline and Bug Toolkit Link
<a href="#">CSCsk15778</a>	Current CRS time in RTR is not changing for NZ DST.
<a href="#">CSCsf03272</a>	AA dial by extn to sccp phone forward to AA failed
<a href="#">CSCsh01665</a>	xfer at IVR prompt failed --- SIPp-SCCP-CTCC-ICD-agent
<a href="#">CSCsi85446</a>	BootstrapManager.stopBootstrapService() should stop copying files, befor
<a href="#">CSCsi85448</a>	Restore original bootstrap data after Add to cluster failure
<a href="#">CSCsh97543</a>	PRRQ: enhance CRSAdminutil to get bootstrapserver state through TCP/IP.
<a href="#">CSCsh72503</a>	JPN: Request to enhance Japanese Improve the pronunciation of numbers.
<a href="#">CSCsd94716</a>	making AAR attributes mandatory
<a href="#">CSCsg15699</a>	Stop CRS Node Manager Service takes around 2 min
<a href="#">CSCsi85441</a>	Add Node to cluster without previously removing it

## 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
<a href="#">CSCsd18349</a>	Application Administration login fails due to unhandled AXL Exception in login page
<a href="#">CSCsd47342</a>	Changed Unified Communications Manager during cluster setup created Application Administration menu with empty content
<a href="#">CSCse57174</a>	Missing error when creating CallControlGro



# 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, page 25](#)
- [Documentation Updates for Cisco CRS Administration Guide, page 26](#)
- [Documentation Updates for Cisco CRS Installation Guide, page 29](#)
- [Documentation Updates for Cisco CRS Historical Reports User Guide, page 32](#)
- [Documentation Updates for Cisco CRS CTI Protocol Developer Guide, page 33](#)
- [Documentation Updates for Cisco CRS Scripting and Development Series: Volume 1, Getting Started with Scripts, page 34](#)
- [Documentation Updates for Cisco CRS Step Editor Reference Guide, page 35](#)
- [Documentation Updates for Cisco Customer Response Solutions Servicing and Troubleshooting Guide, page 37](#)
- [Documentation Updates for Cisco Customer Response Solutions Historical Reporting Administrator and Developer Guide, page 40](#)
- [Documentation Updates for Cisco Unified Contact Center Express Solution Reference Network Design, page 41](#)
- [Documentation Updates for Cisco CRS Port Utilization Guide, page 43](#)
- [On Line Help Updates, page 43](#)

## 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](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 Premium 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](http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_installation_and_configuration_guides_list.html)

## 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 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 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 ODBC 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:
- In the Name field, specify a name for this DSN (for example, Wallboard.)
  - In the Description field, enter a descriptive name.
  - 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](http://www.cisco.com/en/US/products/sw/custcosw/ps1846/prod_installation_guides_list.html)

- 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(1) 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](http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_user_guide_list.html)

- 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 CDR Report” section, change:  
Contact T to Contact Type  
Contact D to Contact Disposition  
Originator T to Originator Type
- In the “Detailed Call by Call CDR Report” section, in the Contact Type field, add:  
6-Outbound Preview as the last ‘type of call’.
- In the “Detailed Call by Call CDR 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](http://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](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 Script" chapter:

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

In this case, the second transfer or redirect fails. Adding a delay ensures that the second transfer or redirect leg can complete before continuing through the script.

## 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](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 runnable 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](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*:

### 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](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](http://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 Cisco 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](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.
- In the “Unified CCX Overview” section in the “Cisco Unified Contact Center Overview and Packaging” chapter, the repeated paragraph is merged as follows:

“Unified EIM and WIM must be deployed on a separate dedicated server or cluster of servers. EIM and WIM may be deployed on the same server or cluster of servers as long as both are either the Basic package or both are the Advanced package.”

## 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](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>

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