



Release Notes for Cisco Unified Contact Center Enterprise Release 8.5(2)

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Introduction to Cisco Unified Contact Center Enterprise Release 8.5(2)

These release notes describe new features and changes for Release 8.5(2) of Unified Contact Center Enterprise (Unified CCE) software. They include release notes for the separate Cisco CTI Object Server and Client (CTI OS) and the Cisco Unified Contact Center Management Portal installations.

Note Release Notes for Cisco Agent Desktop, Cisco Unified E-Mail Interaction Manager, Cisco Unified Web Interaction Manager, Cisco Unified Customer Voice Portal, Cisco Unified IP IVR, and Cisco Unified Intelligence Center are separate documents and are not included as part of these release notes.

Unified CCE 8.5(2) bundles the Unified CCE 8.0(2), 8.0(3) and 8.5(1) releases. For specifics about new features, changes, and corrections introduced in those releases, see their respective release notes. This release notes document covers new features, changes, and corrections introduced in Release 8.5(2).

Release 8.5(2) includes the changes and new features contained in Release 8.5(1). For details about Release 8.5(1) see the [Release Notes for Cisco Unified Contact Center Enterprise Release 8.5\(1\)](#).

About Cisco Unified CCE Release 8.5(2)

Cisco Unified Contact Center Enterprise Edition Release 8.5(2) is a maintenance release upgrade to Unified CCE 8.0(x). It introduces both new features and bug fixes. A maintenance release (MR) is an incremental set of software fixes and a limited set of new functionality delivered in an automated installer. A maintenance release includes content from all prior maintenance releases applicable to the base mainline version (in this case 8.0(x)) at the point of availability. Engineering special (ES) software patches released prior to the current maintenance release are also generally included.

Important: Release 8.5(2) is a required update if you plan to install Unified CCE on the Windows Server 2008 R2 operating system. For Windows Server 2008 R2 support, the Unified CCE Release 8.0(1a) major release must first be installed. Service Pack 1 (SP1) of Windows Server 2008 R2 is required.

Release 8.0(1a) is an update of Release 8.0(1) that includes installation support for Windows Server 2008 R2 in *addition* to installation support for Windows Server 2003. Release 8.0(1a) supersedes the previous Release 8.0(1) install media. There are no additional feature changes in Release 8.0(1a) for systems running Windows Server 2003.

Unless otherwise indicated, all subsequent references in this document to “8.0(1)” should be construed as pertaining equally to “8.0(1a)”.

System Requirements

Note For hardware and third-party software specifications for this release, see the [Hardware & System Software Specification \(Bill of Materials\) for Cisco Unified ICM/Contact Center Enterprise & Hosted](#).

Your Unified CCE system must meet these requirements before you can run the 8.5(2) installers for Cisco Unified Contact Center Enterprise / Intelligent Contact Management or CTI OS:

1. 8.0(x) Baseline or 8.5(1) Installation: The installers for Unified CCE 8.5(2) and CTI OS 8.5(2) can be run over 8.0(x) or 8.5(1) installs. If you are running an earlier release, you must upgrade your system to 8.0(1) before you can install 8.5(2).
2. Java Runtime Environment (JRE) 1.6.0_25 for Unified CCE: Unified CCE 8.5(2) components require JRE 1.6.0_25. If 1.6.0_25 is not already installed, the Unified CCE 8.5(2) installer installs it for you.
3. Java Development Kit (JDK) 1.6.0_22 for CTI OS Java Developer’s Toolkit: If you are developing with the CTI OS Developer’s Toolkit for Java, you must upgrade your CTI OS Developer Workstations to JDK 1.6.0_22. You can perform the JDK upgrade either before or after running the CTI OS 8.5(2) installer, but you must perform the upgrade before you can build with the 8.5(2) Developer’s Toolkit.
4. JRE 1.6.0_22 for CTI OS Agent Desktops: If your CTI OS agent and supervisor desktops include objects built with the CTI OS Developer’s Toolkit for Java, you must upgrade your desktops to JRE 1.6.0_22. You can perform the JRE upgrade either before or after running the CTI OS 8.5(2) installer, but you must perform the upgrade before you can run 8.5(2) desktops.

Related Documentation

See these sources for Unified CCE and related documentation.

Unified CCE Product Documentation

See these sources for Unified CCE product documentation:

- [Latest version of these release notes](#)
- [Unified CCE documentation index](#) on cisco.com
- For troubleshooting tips, go to the [Cisco DocWiki](#) and click the product or option in which you are interested
- For language localizations implemented for this release, see the [Cisco Unified CCE Product and System Localization Matrix](#)

Related Product Documentation

See these sources for documentation on products that make up or interact with Unified CCE:

- [Cisco Unified Communications Manager](#) (Unified CM)
- [Cisco Unified Customer Voice Portal](#) (Unified CVP)
- [Cisco Unified E-Mail Interaction Manager](#) (Unified EIM)
- [Cisco Unified Intelligence Center](#) (Unified IC)
- [Cisco Unified IP IVR](#) (Unified IP IVR)
- [Cisco Unified Web Interaction Manager](#) (Unified WIM)

Documentation for these products can be found from the [Unified CCE documentation index](#):

- [Cisco Agent Desktop \(CAD\)](#)
- [Cisco CTI Object Server \(CTI OS\)](#)
- [Cisco Unified Contact Center Management Portal \(Unified CCMP\)](#)

Other Related Cisco Documentation and Tools

See these sources for information about related Cisco documentation and tools:

- [Technical Support documentation and tools](#)
- For information about the Cisco software support methodology, see the *Software Release and Support Methodology: ICM/IPCC* (sign-in required)

Changes to Unified CCE Documentation

This section describes new or discontinued documents for this release, changes to document titles, and, if noteworthy, what documents have or have not been issued.

Unified CCE Documentation Changes

Unified CCE version 8.5(2) updates are issued for only those documents whose content is modified to reflect new or changed functionality introduced in 8.5(2). For all other guides, refer to the latest Release 8.0(1) or Release 8.5(1) version available.

Several Release 8.0(1) documents have been updated to include information about Windows Server 2008 R2 support. New Release 8.5(2) versions of these guides were not produced. These guides include:

- Administration Guide for Cisco Unified ICM/Contact Center Enterprise
- Installation Guide for Cisco Unified ICM/Contact Center Enterprise, Release 8.0(1)
- Upgrade Guide for Cisco Unified ICM/Contact Center Enterprise, Release 8.0(1)
- Release Notes for Unified Contact Center Enterprise, Release 8.0(1)
- Staging Guide for Cisco ICM/Unified Contact Center Enterprise, Release 8.x(y)
- CTI OS System Manager's Guide

Additionally, online help for specific applications that were updated in Release 8.5(2) has been updated in accordance with all application updates.

A new document, the [Upgrade Guide for ICM and CTI OS for Cisco Unified Contact Center Enterprise](#), provides instructions on upgrading ICM and CTI OS components to 8.5(2).

The [Security Best Practices Guide for Cisco Unified ICM/Contact Center Enterprise & Hosted](#) provides information on security hardening configuration guidelines for Cisco Unified Intelligent Contact Management on a Windows server.

The latest version of the [Unified CCE SRND Guide](#) is version 8.x. It covers Unified CCE releases 8.0x and 8.5x.

Troubleshooting information for these features is available on the [Cisco DocWiki](#).

Changes to CTI OS Documentation

Beginning with Release 8.5(2) the *CTI Toolkit Agent Desktop User Guide* and the *CTI Toolkit Supervisor Desktop User Guide* are merged into a single document: the [CTI Toolkit Agent and Supervisor Desktop Guide](#).

The *CTI Toolkit System Administrators Guide* is not released for 8.5(2). For instructions about how to upgrade to CTI OS 8.5(2), see the [Upgrade Guide for ICM and CTI OS for Cisco Unified Contact Center Enterprise](#).

New and Changed Information

The following sections describe new features and changes that are pertinent to this release.

Support for Windows Server 2008 R2

Unified CCE Release 8.5(2) supports Windows Server 2008 R2 (SP1 or greater), both Standard and Enterprise Editions. Unified CCE 32-bit applications run using WoW64 compatibility mode on the 64-bit Windows Server 2008 R2 operating system. Additional details are available in the *Important Notes* section.

CTI OS .NET Toolkit Support for Visual Studio .NET 2010 and .NET 3.5

Cisco CTI OS .NET Toolkit Release 8.5(2) introduces support for application development using Microsoft Visual Studio .NET 2010 and the .NET 3.5 framework. Existing .NET 2.0 controls do not need to be modified. Additionally, the CTI .NET CIL supports Visual Studio .NET 2010.

CTI Client Support for 64-bit Operating Systems

Release 8.5(2) introduces Java, .NET, and C++ CIL desktop client support on the 64-bit versions of Windows 7, Windows XP, and Windows Vista. Note that the 8.0(1a) base release is required before installing Release 8.5(2).

CTI OS Server to CTI Server Reconnect Implementation

Along with the Unified CCE / Cisco CTI OS 7.5(10) MR, this release implements new behavior for reconnecting CTI OS Server to the CG (CTI SVR), as follows:

If the connection cannot be re-established within X number of retries, where $X = 60 / \text{RetryIntervalSec}$ (as defined in the CTI OS registry), then CTI OS will restart.

If the connection is re-established, then CTI OS Server checks whether or not the configuration has changed while the connection to the CG was not active.

- If the configuration has not changed, then CTI OS goes Active without restarting.
- If the configuration has changed, then CTI OS Server restarts with the changed configuration.

If the CG connection fails before CTI OS Server completely loads the configuration; CTI OS server restarts and continues loading the changes.

Refer to the Cisco CTI OS 7.5(10) MR Release Notes for additional detail on New and Changed information in CTI OS. All changes enumerated are carried forward to this 8.5(2) maintenance release.

Citrix XenApp Server 5.0 with Windows 7 Support for CTI OS

Starting in Release 8.0(1a), CTI OS Clients on Windows 7 support Citrix XenApp 5.0 64-bit. Release 8.5(2) continues this support. Note that the 8.0(1a) base install is required.

Support for Active Directory Windows Server 2008 R2

Release 8.x(y) (including Release 8.5(2)) supports Active Directory on Windows Server 2008 R2 (64-bit) domain controllers with the domain functional level of Windows Server 2008 R2.

The improvements in Active Directory 2008 increase the support and security of an Active Directory based network. Windows Server 2008 supports Read Write Domain Controller (RWDC) and Read Only Domain Controller (RODC) as part of the security enhancements.

For complete details about Active Directory 2008 support in Release 8.x(y), see the [Staging Guide for Unified Contact Center Enterprise, Release 8.x\(y\)](#).

Whisper Announcement and Agent Greeting for Mobile Agent

The Whisper Announcement and Agent Greeting features were introduced in Release 8.5(1).

Whisper Announcement lets agents hear a brief, pre-recorded message just before they connect with each caller. The announcement is played only to the agent; the caller hears ringing (based on existing ring tone patterns) while the announcement plays.

While the content of the announcement can be anything, you will typically want it to contain information about the caller that helps prepare the agent to handle the call. The information might be the caller's language preference, choices the caller made from a menu (Sales, Service), their customer status (Platinum, Gold, Regular), and so on.

You enable whisper announcement and specify which announcement(s) to play in your Unified CCE call routing scripts. Because the determination of which announcement to play is controlled programmatically, you can select which announcement to play based on various inputs such as the dialed number, a customer ID lookup in your customer database, and selections made from a VRU menu.

The Agent Greeting feature lets agents record a message that will play automatically to callers when they connect to the agent. A greeting message can welcome the caller, identify the agent, and include other useful contextual information. With Agent Greeting, each call can receive a clear, well-paced, language-appropriate, and enthusiastic introduction. And it saves the agent from having to repeat the same introductory phrase for each call. The agent hears the greeting as well.

Specific versions of the solution are required to support Whisper Announcement and Agent Greeting for Mobile Agent:

- Unified CVP Release 8.5(1) ES4
- Unified Communications Manager Release 8.5(1)SU2

Note: UCCE 8.5(2) currently supports UCM 8.5(1) only. UCM 8.6(1) support will be available prior to UCCE 8.5(3).

In addition, Whisper Announcement and Agent Greeting are now available for Mobile Agent. For more information about Mobile Agent and these features, see the [Mobile Agent Guide for Cisco Unified Contact Center Enterprise & Hosted, Agent Greeting and Whisper Announcement Features Configuration Guide](#), and the [Release 8.5\(1\) Release Notes](#).

Whisper Announcement and Agent Greeting for Parent/Child Deployments

Release 8.5(2) also introduces support for Agent Greeting and Whisper Announcement for a very specific Parent/Child deployment. Agent Greeting and Whisper Announcement in Parent/Child configurations must be approved by the Cisco Assessment to Quality (A2Q) process and require Cisco Design Mentoring Service to assure that the deployment model is designed and sized correctly to support both features.

At a minimum, the following releases and patch are required:

- Unified CVP Release 8.5(1) ES4
- Unified Communications Manager Release 8.5(1)SU2
Unified Contact Center Express Release 8.5(1)SU1 with `ciscouccx.851SU1agentwhisper.cop.sgn`

Note: UCCE 8.5(2) currently supports UCM 8.5(1) only. UCM 8.6(1) support will be available prior to UCCE 8.5(3).

See the [Agent Greeting and Whisper Announcement Features Configuration Guide](#) for complete details.

Unified Contact Center Management Portal Enhancements

Unified Contact Center Management Portal (Unified CCMP) provides the following enhancements for Release 8.5(2):

- **Windows Server 2008 R2 (64-bit) Support:** Unified CCMP 8.5(2) introduces support for the Windows Server 2008 R2 operating system. Note that support for Windows Server 2003 is no longer available in Unified CCMP release 8.5(2). Customers wishing to use a Windows 2003 32-bit operating system for Unified CCMP must use Unified CCMP 8.5(1) with Unified CCE 8.5(2). Customers wishing to upgrade from earlier releases of Unified CCMP must upgrade the operating system on all Unified CCMP servers to Windows Server 2008 R2 (64-bit).
- **'Re-skill Only' Security Configuration:** A new security task has been added to allow a Unified CCMP user to be given access to manage the agent memberships to a skill group but not to change the properties of the Skill Group or the Agent itself. The new task is called Manage Dimension Memberships. The Manage Dimension Memberships task is not a member of any existing roles by default but can be added to new or existing roles using the Role Manager tool.
- **Allow Enterprise Name edit on Agent copy:** In version 8.5(1) and earlier releases of Unified CCMP it was not possible to specify the Enterprise Name of a new agent when copying from another agent using the Agent Team Manager tool. A new feature has been added to Agent Team Manager which allows supervisors to edit the Enterprise Name of an agent when copying from another agent.
- **Search Functionality in Skill Group Manager:** A search field has been added to the Skill Group Manager page to allow supervisors to search on Agent ID when re-skilling agents using the Skill Group Manager tool. A 'select all' option has also been added enabling fast selection of multiple agents for re-skilling.

PG Failover Enhancement

In Release 8.5(2), PG Failover now uses a 'side weight' approach, which is similar—but not identical—to the device majority logic used by the Router component.

In the case of PGs, a weighted value based on the number of active components as seen by the OPC process is used to decide the 'weight' of both sides. This weight value determines which PG side needs to take over during a PG private link outage, so that the disruption to the contact center can be minimized.

The OPC process is enhanced to dynamically calculate and maintain the weights for both the sides. OPC also keeps the MDS processes on both sides updated at all times with the cumulative device weights for both sides. This allows MDS to take appropriate action in case of a private link failure, as described above.

The device weights of individual processes are predetermined by the PG on the basis of the impact to the Contact Center in case of failover. For example, Agent PIMs have higher device weight than VRU PIMs and CTI Server, since the system takes longer to recover and the disruption to contact center is greater if the Agent PIM fails over. The device weights for individual processes are not configurable.

This feature was previously introduced in the Unified CCE 7.5(10) MR.

Database Schema Changes in Release 8.5(2)

There are no changes to the database schema in Unified CCE 8.5(2).

PIM and NIC Support with Windows Server 2008 R2

Peripheral Interface Module (PIM) support in Windows Server 2008 R2 is as follows:

- The ICM Release 8.5(2) Avaya PG is supported with Windows Server 2008 R2. The Avaya PG running on Windows Server 2008 R2 requires CVLAN version 6.1 which is integrated with Release 8.5(2).
- The Aspect, Spectrum, and Symposium (now Avaya ACC) PGs are not currently supported on Windows Server 2008 R2, due to vendor support and/or 3rd party constraints.

Network Interface Controller (NIC) Support in Windows Server 2008 R2 follows, with each NIC fully supported unless otherwise indicated:

- AT&T (see note below)
- CRSP
- ICRP
- INCRP
- TIM (see note below)
- Nortel
- SS7InNic (see note below)
- GKTMP
- NTL
- CWC (see note below)
- Unisource (see note below)
- Stentor (not currently supported in Windows Server 2008 R2)
- Sprint (not currently supported in Windows Server 2008 R2)

Note: The NICs indicated above (“see note”) are connected to the IXC switching domain through their respective Sigtran or SS7 Gateways (NGW). The SS7 Gateways (e.g. ATGate, ITUGate, and INAPGate) require SS7 interface hardware cards. Due to a device driver dependency, those cards are not supported in Windows Server 2008 R2. Deploying the Sigtran version of the respective NGW or retaining back level NGW support on Windows Server 2003 are viable options. Refer to the [Hardware & System Software Specification \(Bill of Materials\) for Cisco Unified ICM/Contact Center Enterprise & Hosted](#) for more detail on deployment options.

Performance Monitor Shortcut for 32-bit Monitoring

A shortcut to the 32-bit version of Performance Monitor is included in the Cisco Unified CCE Tools folder for easy access to the *Performance Monitor* application. This shortcut launches the 32-bit version of *perfmon* so that Unified CCE components can be easily monitored.

EMS Log Compression

To collect logs that span extended time periods, Event Management System (EMS) log files for CTI OS Server and the following Peripheral Gateway (PG) components are zipped:

- OPC-CCE
- OPC-TDM
- CTISVR
- EAGTPIM
- JTAPIGATEWAY
- VRUPIM

File compression is activated for the supported PG components when you install a patch or when you run setup on the PGs with the supported PG components. File compression is activated on the CTI OS Server when you install a patch or run CTIOS Server setup.

For more information, see the [Serviceability Best Practices Guide for Cisco Unified ICM/Contact Center Enterprise & Hosted](#).

EMSMON Changes

The following section describes changes to the EMSMON utility, useful for displaying process status and logging information. The utility is particularly relevant for Windows Server 2008 R2 customers, given the the traditional Unified CCE process command windows are no longer available (see the section *Viewing the Status of Unified ICM/CCE Processes*).

For more information regarding each change, see the [Serviceability Best Practices Guide for Cisco Unified ICM/Contact Center Enterprise & Hosted](#).

EMSMON Title Bar Change in Behavior

In Release 8.5(2), the EMSMON application now displays the customer, node, process, and system selections, entered as parameters, on the title bar. This allows you to easily select a particular EMSMON application from the task bar if multiple EMSMON windows are running.

EMSMON displays logged messages from a process as they are logged. It displays the same content as the former process windows that are no longer available with Windows Server 2008 R2 SP1. EMSMON differs from the process windows in the title bar and stdout/stderr output. Events are logged for all processes and appear in EMSMON. However, rare error condition messages (for example shelled processes) that go to stdout do not appear in an EMSMON window.

The format of the EMSMON command is

EMSMON *customer node process [system]*

where [system] is the system IP address or the system name. The system parameter is optional.

EMSMON Command Examples

The following lists the parameter values used:

- Customer = cust1
- Node = PG1a
- Process = jgw1
- System name = lab-pg1a

Example 1: *EMSMON cust1 PG1a jgw1*

Example 2: *EMSMON cust1 PG1a jgw1 lab-pg1a*

EMSMON Sessions

You can run one local session and five remote sessions per process.

EMSMON Connections

If your system is experiencing a heavy call load, EMSMON connections may be dropped.

Default Trace Levels

PG

Enhancements were made to improve the content of default tracing for targeted PG components. Along with the new default tracing, improvements to PROCMON and OPCTEST commands to turn default tracing on and off were made.

Note Tracing is set to default levels when the patch is installed or whenever PG Setup is run.

Default tracing is now contained in one debug trace, /default, with EMSTracemask = 0x40. Do not enable other tracing at the default tracing level. Two new parameters were added to OPCTEST debug command, /on and /showtrace.

Enabling /default traces the same logs as enabling /routing /agent /closedcalls /cstacer /rcmsg /tpmsg /simplified /inrcmsg. Having default tracing controlled by one flag makes it more user-friendly.

For more information, see the [Serviceability Best Practices Guide for Cisco Unified ICM/Contact Center Enterprise & Hosted](#).

CTI OS

The CTI OS tracing levels were updated. To view the updated tracing levels, see the [Serviceability Best Practices Guide for Cisco Unified ICM/Contact Center Enterprise & Hosted](#).

Virtual Machine Open Virtual Archive Templates

For Release 8.5(2), a new Open Virtual Archive (OVA) template file has been created for Windows Server 2008 R2. The Unified CCE template is an OVA file that provides a drop down list of specific machine types you can choose from when you import/deploy systems using the Open Virtualization Format (OVF) feature from VMware, Inc.

This template supports Microsoft Windows Server 2008 R2 SP1, Standard Edition (64-bit) and Enterprise Edition (64-bit) and ESXi 4.1. This OVA template and the Windows Server 2003 OVA templates are available on cisco.com under software downloads.

More details about the new OVA template (including relevant ESXi information) for Release 8.5(2) can be found on the [Cisco DocWiki](#).

Additionally, the OVA templates for Windows Server 2003 have been combined into a single OVA template that works the same as the Windows Server 2008 R2 template.

You can download the OVA templates from Cisco.com. To access the readme file that explains the OVA template details, click on **Download Now** for the OVA template that you want to download then click on the Readme link under *Additional Information*.

QoS Implementation and Support

For Release 8.5(2), use of the Microsoft Packet Scheduler (for Router/Router, PG/Router, and PG/PG connections) is officially deprecated, and will be removed in a future release. Note that in version 8.0(1), the ability to enable Packet Scheduler on the Router duplex connection was removed. This facility will be removed in the PG Setup as well in a future release.

For Windows Server 2008, the Microsoft facility for DSCP packet markings (the IP_TOS socket option) was removed. Subsequently, for Windows Server 2008, packet markings are now made with locally created QoS Policy entries. Note that the functional result for Windows Server 2003 and 2008 installations is the same.

The CTI Client Interface Library (or CIL) also implemented QoS support with the IP_TOS socket option; this functionality is supported under Windows XP, but not under Windows Vista or Windows 7. Therefore, any CIL based CTI Client on Vista or Windows 7 cannot rely on the TOS (Type of Service) parameters in the connection libraries to properly mark packets. A Policy Based QoS arrangement (similar to that taken on UCCE services) was not taken in the CIL because that approach relies on Administrator or elevated privilege, and Cisco cannot guarantee that client installation programs, or the client applications themselves will have the required privileges to add, delete, or modify a QoS Policy. Due to the large number of CTI Clients in any installation, an Active Directory administered QoS Group Policy is recommended instead. This will drive consistency across the client installations. If a locally created QoS Policy is deemed necessary, the IGroupPolicyInterface may be used to programmatically manage policies.

Important Notes

The following section provides information on migration, security, and other considerations related to Release 8.5(2).

Installation Error “The patch cannot be installed...”

Some third-party processes may lock DLL files that the UCCE installer must update during the patch install process. If one or more of these DLL files are locked, then the following error displays:

*“The patch cannot be installed if any product component is currently running.
One or more running components have been detected and setup must abort.
Please check the setup log for details, stop all running products, and then restart this installer.”*

The following files may be locked if you receive this error:

- \icm\bin\CampaignManagerPerf.dll
- \icm\bin\CTISVRPerfmonObjectDLL.dll
- \icm\bin\DialerPerf.dll
- \icm\bin\EapimPerfCounters.dll
- \icm\bin\ImportPerf.dll
- \icm\bin\LoggerPerf.dll
- \icm\bin\OPCPerfmonObjectDLL.dll
- \icm\bin\RealTimePerf.dll
- \icm\bin\rtperf.dll
- \icm\bin\VRUPIMPerfCounterDLL.dll

Exit / stop the relevant product / process and re-attempt the installation. If the offending 3rd party processes(es) are not identifiable, use the following steps to determine which processes are locking the DLL, and to stop the corresponding processes:

1. Download the application *Process Explorer* from <http://technet.microsoft.com/en-us/sysinternals/bb896653>
2. Extract all the files from the downloaded zipped package.
3. Using Windows Explorer, navigate to the extracted *ProcessExplorer* folder.
4. Right-click *procexp.exe* or *procexp64.exe* and select **Run as Administrator**.
5. From the *Process Explorer* main menu, select **Find > Find Handle or DLL**.
6. Enter the file name of the dll in the *Process Explorer Search* dialog and click **Search**.
7. The processes that are using the DLL are listed.
8. The processes may be terminated in the main window of the application by right-clicking each process and selecting **Kill Process**.

This issue is being tracked with the identifier *CSCtq89922*.

Web Setup HTTP Error 500

Use the following steps to resolve the error “HTTP ERROR 500.0 - Internal Server Error calling LoadLibraryEx on ISAPI filter "E:\icm\tomcat\bin\i386\isapi_redirector2.dll" failed” when starting Web Setup:

1. Using Windows Explorer, right-click the folder *c:\icm* and select **properties**.
2. Select the *Security* tab in the *icm Properties* window.
3. Verify the permissions for the *Administrators* role is set to **Full Control** (all items checked under *Allow*). If the permissions are not set correctly then click the **Edit** button and modify the permissions.
4. Verify the permissions for the *Users* role has a check mark under *Allow* for the following:
 - Read & Execute
 - List folder contents
 - Read
 - Special permission
5. If the permissions are not set correctly then click the **Edit** button and modify the permissions.

Support Tools

Support Tools is not supported or available in Release 8.5(2). You are not prompted for a Support Tools pre-shared key.

Cisco Unified Computing System (UCS) Support

Unified CCE supports running on UCS hardware when running in virtual mode. Unified CCE is not supported when installed directly on UCS hardware.

The [Hardware & System Software Specification \(Bill of Materials\) for Cisco Unified ICM/Contact Center Enterprise & Hosted](#) describes supported hardware and the [Cisco Docwiki](#) contains details on virtualization for UCCE, including configuration and supported releases.

Windows Server 2008 R2 SP1

Migration to Windows Server 2008 R2

Microsoft does not provide an upgrade path from 32-bit Windows Server 2003 to 64-bit Windows Server 2008 R2. Therefore, a common-ground upgrade for Unified CCE and CTI OS systems is not supported.

Details on a “Technology Refresh” on Windows Server 2008 R2 SP1 are available in the [Upgrade Guide for Cisco ICM/Unified Contact Center Enterprise, Release 8.5\(2\)](#). You can run a technology refresh upgrade to Release 8.5(2) for new hardware (or on existing 64-bit hardware, if previously running 32-bit Windows Server 2003 and Windows Server 2008 R2 is being newly installed) from Release 7.5(x), 8.0(x) or 8.5(1).

Details on a “Fresh Install” on Windows Server 2008 R2 SP1 are available in the [Installation Guide for Cisco Unified ICM /Unified Contact Center Enterprise, Release 8.0\(1\)](#). For a fresh install on Windows Server 2008 R2 SP1, you must provide the maintenance release location for Release 8.5(2) to the installer. *Release 8.0(1a) does not function on Windows Server 2008 R2 unless the supported maintenance release has been subsequently applied.*

Windows Server 2008 R2 SP1 Security Considerations

Windows Server 2008 R2 User Account Control

Microsoft User Account Control (UAC) enhances security by limiting applications to standard user privileges until an administrator authorizes a privilege increase or elevation. UAC is turned on by default in Windows Server 2008 R2 SP1.

A user account may have administrator privileges assigned to it, but applications that the user runs do not inherit those privileges, unless those privileges are approved beforehand or the user explicitly authorizes the privileges. Advanced approval can be achieved by creating a manifest file that includes the required privilege information and embedding that file into the application. Unified CCE Tools requiring Setup privileges have been manifested to run with elevated privileges. If a user who is not an Administrator attempts to run these tools they will be prompted for administrative credentials.

Additionally, when some applications are launched, UAC pops-up a window requesting additional privileges. Most Cisco Unified CCE applications requesting these additional privileges are identified as **Cisco UCCE** as the *Verified Publisher*. However, the PG Setup application, PeripheralGatewaySetup.exe is identified as *Unknown Publisher*. This issue is being addressed and tracked with the identifier CSCtq76295.

For more information about UAC, please refer to the following Microsoft web site.

User Account Control Step-by-Step Guide:

[http://technet.microsoft.com/en-us/library/cc709691\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/cc709691(WS.10).aspx)

Microsoft Network Access Protection Considerations

Network Access Protection (NAP) is a Microsoft platform and a feature for Windows Server 2008 R2 SP1. For more information about the impact of NAP on Unified CCE, we highly recommend that you refer to Chapter 10 of the [Security Best Practices Guide for Cisco Unified ICM/Contact Center Enterprise & Hosted](#) for 8.5(2).

TCP Chimney Offload

TCP Chimney Offload is not enabled by default in Windows Server 2008 R2. Cisco does not support the use of offload, which has been proven to be problematic in certain Unified CCE deployments.

Refer to Unified Contact Center Enterprise Field Notice (FN) 63215 for additional information. Also see Microsoft Knowledge Base article 951037 for more detail on the option.

IPv6 Host Enablement

Unified CCE 8.5(2) does not include full internal support for native IPv6. Because the Windows Server 2008 R2 operating system does provide for native IPv6 support out of the box, it is necessary to explicitly disable IPv6 on each interface adapter when using Hostnames in the Unified CCE product. As an alternative, specifying IPv4 addresses instead of Hostnames will circumvent the need to disable IPv6.

Operating System Security Hardening

Operating System security hardening is not an option during install for Release 8.0(1a) if you are running on Windows Server 2008 R2 SP1. This is due to the higher inherent security level built into Windows Server 2008 R2. SQL Server security hardening can still be optionally applied during installation of Release 8.0(1a) on Windows Server 2008 R2.

Unsupported PGs

The following PGs are currently not supported on Windows Server 2008 R2 SP1:

- Aspect
- Spectrum
- Symposium Contact Center Server (later Avaya ACC)

For details about installing and configuring these PGs, see the Cisco third-party [ACD Supportability Matrix](#) or Cisco Technical Assistance Center (TAC).

Unsupported Network Interface Controllers

If you install the 8.5(2) patch on a system that has unsupported Network Interface controllers (NICs) (see *PIM and NIC Support in Windows Server 2008 R2*), the following warning message is displayed:

Support for the <name> Network Interface Controller (NIC) on Windows Server 2008 R2 SP1 was not complete at the point of ICM/UCCE 8.5(2) availability. This installation / configuration operation can be completed, but Cisco TAC must be consulted to obtain updated guidance for deployment (which may require additional system ES patch(s) and/or 3rd party software updates).

Viewing the Status of Unified ICM/CCE Processes

In Release 8.5(2), for Windows Server 2008 R2, Unified CCE process windows do not appear in the taskbar. This is due to security constraints in Windows Server 2008 R2 and means that the user can no longer use the taskbar to view process status information, for example, whether the process is active or not.

To address this, the user can view process status information in the Diagnostic Framework Portico, or use the updated EMSMON application to provide additional information that previously appeared in the title bar of process window. See the [Serviceability Best Practices Guide for Cisco ICM/Unified Contact Center Enterprise](#) for more details on using the Diagnostic Framework Portico. EMSMON changes are described in this document in the section *EMSMON Changes*.

For Windows Server 2003, Unified CCE process windows continue to appear in the taskbar.

ICMDBA and Computer Browser Service

The Intelligent Contact Management Database Administrator (ICMDBA) requires the Computer Browser service to be running to function correctly. However, Windows Server 2008 R2 SP1 does not enable the Computer Browser service by default (it was enabled by default on Windows Server 2003).

Start the Computer Browser service before running ICMDBA. If you do not start the Computer Browser service and attempt to run ICMDBA, ICMDBA displays a message asking you to start the Computer Browser service before continuing.

ICMDBA Partitioning

Availability of the partitioning option in the ICMDBA tool does not designate support for this feature, which was formally discontinued following Release 7.5. The ICMDBA partitioning option was retained for customers who have upgraded from prior releases and continue to have partitioning enabled. The option provides for database recreation following disaster recovery.

Microsoft SQL Server 2005 SP Requirement

Windows Server 2008 R2 SP1 systems must use SQL Server 2005, Service Pack 4 (SP4) or higher. Systems running Windows Server 2003 require SQL Server 2005 Service Pack 3 (SP3) or higher.

SQL counters do not get collected in perflogs on win2k8 R2

SQL performance counters can be added by running the 32-bit version of Perfmon on the Windows server 2008 R2 platform. Unfortunately, even running the 32-bit version of System Monitor (launch 32 bit Perfmon monitor by using the cmd - mmc.exe /32 perfmon.msc) will not allow you to collect 32-bit performance counter data into performance logs. You can add the counters, but when you inspect the logs later, they won't have any data for the 32-bit applications. They are available only in real time and cannot capture them in a performance log file.

According to Microsoft, when you install SQL Server 2005 x86 on a Windows Server 2008 x64, only one 32bit instance is created. You see only one process running (sqlservr.exe *32), linked to one service (MSSQL\$InstanceName) and one file location. Usually this is "c:\Program Files (x86)\Microsoft SQL Server\MSSQL.1\MSSQL\Binn".

If you do a "dir sqlctr90.dll /s" from the root of c:\ drive, you will find one DLLs on Windows 2008 64 bit server under "c:\windows\sysWOW64" but the 64bit DLL will be missing under "c:\windows\system32" directory, which is expected.

A workaround to the SQL Perfmon counter solution suggested by Microsoft is to copy the 64bit DLL from another machine running the 64bit SQL Server to the Windows Server 2008 x64 machine running the 32 bit SQL and place it into "c:\windows\system32". (Preferably a DLL from the same SQL SP level.)

PostRouteFlag not supported in Unified CCE

The PostRouteFlag as defined in the CTI OS Developers Guide deprecated for Unified CCE in Release 8.5(2). In Release 8.5(x) and later, the Dialed Number Plan is implicitly invoked, even for dialed numbers not configured using the Dialed Number Plan list tool. This allows agents to request post routes without having the call go to the Unified Communications Manager as long as the call is placed from the agent's desktop.

Resolved Caveats in This Release

This section contains a list of all Severity defects that were resolved in Unified CCE Release 8.5(2). Defects are listed by identifier and then by component. You can open the defect directly in Bug Toolkit by clicking the link in the Identifier column.

Identifier	Component	Severity	Headline
CSCtg20255	netgwy.ss7.sigtran	3	Sigtran GW Loadshare does not work properly
CSCth58635	patch	3	Installation aborted due to the product executable files are locked
CSCti16224	db.distributor.rtf.client	3	Real Time Client process asserts after Real Time Feed switch b/w RTS-RTD
CSCtj59799	documentation	3	Deleting agent using Agent Bulk Edit tool
CSCtj78340	pg.definity	3	Avaya PIM asserts due to Queue header pointer corruption
CSCtj90223	pg.symp.noseipim	3	Symposium PIM runs 25% processor utilization 100% of the time
CSCtj92729	pg.opc.tdm	3	logout status of agent updating slowly in Realtime reports
CSCtj92848	websetup	3	CEHDS Selecting AW HDS fails on 8.0 UCCE upgrade
CSCtk05802	ctios-server	2	CTIOSSvr used up all system tcp/ip socket buffer if client is slow
CSCtk05824	pg.opc	3	UCCE8 - Agent_state_Trace is missing some EventName (READY, NOT_READY)
CSCtk15844	client-libs	2	CTIOS Filter mode with agentstate causes COM Cil Memory Leak
CSCtk34327	usermigration	3	User Migration Tool fails to detect and connect to Router
CSCtk47955	pg.opc	2	Voice call is routed to a chat Agent when he is in chat activity
CSCtk57398	pg.eapim	3	Multiline Feature keeps agent in Reserved State when RONA
CSCtk68066	db.icmdba	3	icmdba - creating logger DB overwrite registry key(LoggerType)
CSCtk75698	pg.eapim.jtapigw	2	Subsequent login failed with "another agent logged in to the phone"
CSCtk95603	documentation	3	Queue to Agent node description is wrong in online

			Help of Script Editor
CSCtl04119	ccmp	3	Auditing and Monitoring reports - System.OutOfMemoryException
CSCtl04107	pg.opc	2	Incorrect OPC HalfHour data
CSCtl19620	ccmp	3	CCMP must be more resilient to user error
CSCtl58738	pg.opc	2	Avaya PG's OPC process asserts after firing a Dummy Call Event
CSCtl59371	pg.opc	3	Incorrect CallTypeID w/inn TCD for call after RunExtScript failure
CSCtl71716	pg.opc	2	Network Operation Flag Not Set During NBT
CSCtl71809	router	3	Translation_Route_Half_Hour.RoutesInUseToHalf becomes negative
CSCtl87127	cg.ctiserver	2	Child PG de-registers route points after parent PIM failover
CSCtn05427	setup.pg	3	Can not add a new PG without going back to Base version in ICM
CSCtn08443	scripteditor	3	No warning is shown in ScriptEd when objects are not mapped correctly
CSCtn11134	pg.opc	3	Wrong Dialed number in CAD Real Time reports
CSCtn14139	pg.opc	3	Agent state changes are not updating properly in Agent_State_Trace Table
CSCtn22187	pg.vru	2	VRU PIM crash on TemporaryConnect
CSCtn22928	aw	3	Re-Skilling Tool gives SQL Error when assigning \ removing agent skills
CSCtn30387	pg.eapim.jtapigw	2	Incorrect CD 7 cut interminently when calls queued to IPIVR
CSCtn39674	documentation.srn d	3	SRND needs to state Silent Monitoring through ASA not supported
CSCtn47618	pg.definity	3	Pim is not updating UUI field on the Avaya
CSCtn63533	router	2	InsertConfig operation fails for auto-configured agents
CSCtn65380	cti-toolkit-superv	2	After 8.5 upgrade agent state not updating in CTIOS supvsr reports
CSCtn72501	nic.icrp	3	ICRP NIC does not process New calls on certain conditions.
CSCtn80160	pg.opc	3	VRU using CRI interface having route request issues
CSCtn84159	pg.eapim.jtapigw	3	2 TCDs for single call involves 2 Route request
CSCtn87711	pg	3	Dumplog fails to capture logs from .gz files

CSCto04602	pg.vru	3	VRU PIM crashes while tracing Call Cleared Event
CSCto04866	ccmp	3	No deployment types loaded error on CCMP Portal page
CSCto07554	db.distributor realtime.feed	3	RTS assertion
CSCto32754	pg.eapim.jtapigw	2	Can't share unmonitored lines in Single Line mode
CSCto54543	aas	2	AAS unable to go active with AASConAPIDisableAutoConnect set to TRUE
CSCto64676	ba.dialer	3	Region prefix data to be updated
CSCto64691	pg.acmi	2	ACMI PIM doesn't increase buffer size larger than 4096
CSCto69603	pg.opc	3	OPC asserts while processing ReportQueue event
CSCto77169	ccmp	3	Unable to upload audio prompts using micro-ap
CSCto87338	pg.opc.tdm	3	Not Ready agents in priority seen as Ready in Base SG
CSCtq00806	pg.opc.ipcc	2	OPC assert after nw failure in Duplex environment Or Idle side opc hung
CSCtq03759	pg.eapim	3	Agent stuck in reserved state after call does not get delivered
CSCtq12719	inetscripted	3	Internet Script editor error as "scriptname was not opened successfully"
CSCtq15330	pg.opc	3	Wrong Not Ready Duration value in Agent Event Detail table
CSCtq15920	ba.dialer.sip	3	SIP Dialer Crashing due to Buffer of GW host name >16 Chars
CSCtq32247	pg.eapim	3	WRAPUP time not expire when agent open dial-pad enter any digit
CSCtq45215	pg.opc	2	TCD with CD 34 not created for NBT when PostRoute pram set to TRUE
CSCtq52223	pg.opc.ipcc	2	Calls Handled not incremented for routed call if reverse transfer
CSCtq70763	documentation	3	Password issue for Supervisor Desktop install on Japanese localized sys
CSCtq76122	ccmp	3	Exony: CCMP install guide does not provide correct info for Call Manager
CSCtq76255	documentation	3	On Windows 2008, need to run IE as admin to run report server page
CSCtq84486	documentation.srند	3	SRND needs update to reflect the impact of JTAPI changes for EMCC

CSCtq91988	ccmp	2	Usernames containing underscore "_" are replaced with backslash "\"
CSCtq99798	db.distributor.rtf.lient	2	RTC stuck at DB clean-up indefinitely after re-establishing RT Feed

Open Caveats in This Release

This section contains a list of all Severity defects that are currently pending in Unified CCE Release 8.5(2). Defects are listed by identifier and then by component. You can open the defect directly in Bug Toolkit by clicking the link in the Identifier column.

Note Because defect status continually changes, be aware that the following table reflects a snapshot of the defects that were open at the time this report was compiled. For an updated view of open defects, access Bug Toolkit and follow the instructions as described in [Using Bug Toolkit](#).

Identifier	Component	Severity	Headline
CSCtn25137	aw.config	3	Attempt Create Supervisors as Standard User has weird error.
CSCsv30141	db.logger.purge	2	Technical enhancement to purge is needed, partitioning tables SQL
CSCtq80362	pg.ars.gw.aastra	2	(ARSINT-160) Aastra ARSGW 1.0.10 upgrade fails intermittently
CSCtr43056	pg.vru	2	VRU PIM crash on TemporaryConnect
CSCtr29461	ba.dialer	3	When multiple #s, dialer dials based on timezone of 1st # only
CSCtg23815	pg.symp.noseipim	3	Nortel Analog phones caused unexpected event in Symposium PIM
CSCti83805	aw-wiz.app	3	Translation Route Wizard fails to Create DNIS values > 10 Digits
CSCtj25611	pg.eapim	3	SIP Dialer process freezes after sip dialer config mgr changes
CSCtn94621	db.distributor.realtime.feed	3	RTS asserts after updating a real time record
CSCto43263	aw.config	3	List Tools-Dialed number list throws error while click on result
CSCto73077	aw.config	3	Any domain user with local admin privileges can launch Config Manager

CSCto91895	integration/system	3	ICRLib buffer overruns
CSCto91999	integration/system	3	ICRLib static buffer use not thread safe
CSCto96053	ba.dialer.sip	3	Dialer does not transfer to agent when prefixing
CSCtq15671	pg.eapim.jtapigw	3	Unified System CLI debug level setting not taking effect in JGW process
CSCtq17925	db.distributor.replication	3	rpl process asserts mentioning connection down on 40026 port
CSCtq21843	cti-toolkit-agent	3	AG Record button enablement after PG failover
CSCtq29506	pg.opc	3	OPC process asserts during the outbound call flow.
CSCtq32262	pg.opc.ipcc	3	Wrap-up window disappears when agent ends call after JAL
CSCtq35127	cg.ctiserver	3	CTI server asserts with mini dump during the failover scenarios
CSCtq46436	ctios-server	3	2 line call appearance after PG failover
CSCtq47995	router	3	RouterCallsOffered not incremented when Call queued using QueueToAgent
CSCtq63298	ba.import	3	In dialer list Area codes intermittently get assigned to default region
CSCtq67530	pg.opc.ipcc	3	Stale agent information seen though when no agents logged in
CSCtq78398	cti-toolkit-agent	3	CTI OS Agent Desktop leaks memory during Consult Transfer Call flow
CSCtq78447	pg.acmi	3	Discrepancy between Parent/Child real time fields
CSCtq78454	sample-code	3	C++ CILTest memory leak during Consult Transfer call flow
CSCtq78466	pg.opc.ipcc	3	Agent state trace missing for "Talking Event" after PG failover
CSCtq79580	cppcil	3	CIL does not support QoS (DSCP) setting on Windows Vista
CSCtq79588	cppcil	3	CIL does not support QoS (DSCP) setting on Windows 7
CSCtq81530	pg.opc	3	Peripheral Variables are not saved in parent TCD for conference calls
CSCtq83671	pg.eapim	3	Agent AutoAnswer is not working for blind conference

CSCtq84408	aw.config	3	Script Reference Tool crashes if script description exceeds 128 char.
CSCtq89922	setup	3	vmtoolsd.exe has handle on CTIOSPerfmonObjectDLL.dll for 8.5.1 install
CSCtq92434	pg.eapim	3	Reverse transferred call lost call control and handled is not counted
CSCtq92442	pg.eapim	3	Failed to play AG when user.media.id is used in the script on parent.
CSCtq94944	pg.eapim	3	PG is not responding with CONF after internal timeout
CSCtq94998	router	3	Router is late in responding to UnavailableReq from PIM under load
CSCtq97570	pg.opc.tdm	3	Call cannot route to agent when ready after RNA redirect
CSCtq99838	ctios-server	3	CallsHandledToday field in CTI OS stats is not updated
CSCtr07037	comm.dmp	3	Memory leak observed in CCAgent process when network configured wrong
CSCtr20969	pg.eapim.jtapigw	3	With CCM861, mobile agent calls failed after AgentGreeting
CSCtr21224	pg.eapim	3	Load With CCM861, about 2.5% customer calls gets dropped during whisper.
CSCtr21357	pg.eapim	3	When using ATR agents can log in to invalid instrument ID.
CSCtr21533	pg.ars	3	ARSPIM crash RecvCallClearedEventMsg
CSCtr26015	pg.opc	3	OPC Sends the Incorrect Dialed Number for Consult calls in case of DNP.
CSCtr26138	cti-toolkit-agent	3	Customization of skill group statistics shows incorrect data in CTI OS
CSCtr26139	aw.config	3	Cannot Delete Scheduled Targets using "Schedule Target Explorer"
CSCtr26309	setup	3	DLL unregistration error observed during a CTI OS server fresh install on win2k8
CSCtr26326	ctios-server	3	Unable to retrieve an agent call conferenced with a dynamic device
CSCtr26335	pg.opc	3	'CED' field value disappears from CTI OS dekstop after failover
CSCtr26458	pg.opc	3	VRU PIM asserts during an invalid state transition
CSCtr26877	patch	3	CTI OS client uninstall fails with an error

CSCtr27973	pg.opc.tdm	3	Agents logged into priority SKGs are displayed as logged out in base SKG
CSCtr28480	aw.config.ba	3	Outbound Option Import rule tool asserts when click on enter.
CSCtr35813	pg.opc	3	Whisper Announcement does not play after SingleStepTransfer on some calls
CSCtr42982	pg.symp.noseipim	3	SymNoSei PIM crash during transfer scenario.
CSCtq97589	provision-server	2	Updates onccmp stuck in pending active
CSCtq10069	ccmp	2	CCMP has limitation on 2100 records

Using Bug Toolkit

To access Bug Toolkit, you need the following items:

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

To use the Software Bug Toolkit, follow these steps:

1. Access the [Bug Toolkit](#).
2. Log in with your cisco.com user ID and password.
3. To look for information about a specific problem, enter the bug ID number in the “Search for Bug ID” field then, click **Go**.

Alternatively, under “Select Product Category,” select **Voice and Unified Communications**; or, under “Select Products,” select **Cisco Unified Communications - Enterprise** and then select the “Software Version” you are interested in.

For information about how to search for bugs, create saved searches, create bug groups, and so on, click **Help** in the Bug Toolkit window.

Troubleshooting

For Cisco Unified Contact Center software troubleshooting tips, go to [Cisco Documentation Wiki](#), then click the product/option you are interested in.

Obtaining Documentation, Support, and Security Guidelines

For information about obtaining documentation, obtaining support, providing documentation feedback, obtaining security guidelines, and also recommendations for 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.

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