Cisco Unified Attendant Console Advanced Troubleshooting Guide

October 30, 2013

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Cisco Unified Attendant Console Advanced Troubleshooting Guide
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CONTENTS

Preface

This document is intended for anyone involved in the troubleshooting and support of Cisco Unified Attendant Console Advanced. It assumes basic understanding of the Cisco Unified Attendant Console Advanced system and Cisco Unified Communications Manager, and it should be used in conjunction with the following documents:

- *Cisco Unified Attendant Console Advanced Administration and Installation Guide*
- *Cisco Unified Attendant Console Advanced Design Guide*

Obtaining Documentation and Submitting Service Requests

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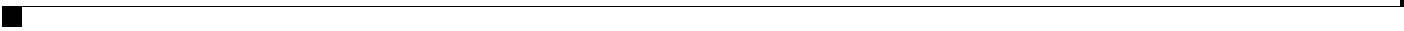
CHAPTER 1

Logging

This chapter describes how to use Cisco Unified Attendant Console Advanced Logging functionality to troubleshooting your system.

To configure logging, run Cisco Unified Attendant Console Advanced Administration and choose **Engineering > Logging Management**.

Cisco Unified Attendant Console Advanced Logs

Cisco Unified Attendant Console Advanced logs are located in *C:\Program Files\Cisco\Logging\OPR\ Log*.

To toggle logging on and off, in the Cisco Unified Attendant Console Advanced client choose **Help > About,** and then press **Ctrl-Alt-T**. The word *Logging* is displayed in the title bar when logging is activated.

You can use the following registry keys on the Attendant's PC to control logging. All keys have the root path *HKEY_LOCAL_MACHINE\Software\Arc Solutions\Call Connect\Operator\Logging*.

Location	Use
\Database Logging	**Yes** enables Contact Directory and search logging, **No** disables it.
\Full Logging	**Yes** enables full logging. **No** enables default logging.
\General Log File	The logging files base name. Default is **OPRlog.txt**.
\General Log Location	The path to the log files folder. By default, this is C:\Program Files\Cisco\Logging.
\Host CTI Service Logging	**Yes** enables phone status icons logging. **No** disables it.
\Logging On	**Yes** turns logging on. **No** turns logging off.
\Maximum Log Files	The maximum number of log files to save before overwriting the oldest.
\Maximum Log Lines	Number of lines written in each log file

Cisco Unified Attendant Console Advanced Server Logs

Cisco Unified Attendant Console Advanced server logs every event that it generates. The following processes are logged:

• Main Process - manages the router, database and communications, for example user activity (login, logout)

• Router Process - all the call routing information

• CTI Process - the TAPI Interface

• Database Process - all activity on both databases

• Communication Process - the TCP/IP communication between the clients and the server

By default, the Main and Router processes are selected for logging; these provide sufficient information to solve most problems. To keep the log file to a manageable size, log the fewest processes possible. You should only need to amend these settings if requested as part of a support case investigation.

Each process saves its logs in a different sub-folder of *C:\Program Files\Cisco\Attendant Server\Log*. Depending on the length of time over which you want to record data, you may need to increase the number of log files and the lines they contain. You can have up to 100 files, each containing up to 100000 lines.

Cisco Unified Attendant Console Advanced LDAP Plug-in Logging

The default logging level is *Detailed*. If any of the following occur, you may have to change the level to *Full*:

• Discrepancies between the Cisco Unified Attendant Console Advanced directory and the Cisco Unified Communications Manager directory

• Problems when synchronizing data online to the Cisco Unified Attendant Console Advanced Server

• Communication problems

Cisco Unified Attendant Console Advanced CUPS Plug-in Logging

If any of the following occur, you should set the logging level to *Full*:

• Memory leaks

• Communication problems

• sipXTapi (open source third-party component) problems

Full logging provides .Net stack-level exception details.

If necessary, enable sipXtapi logging by ensuring that the file *C:\Program Files\Cisco\CUPS\Cisco Presence Server Plug-in.exe.config* contains the line:

(<add key="sipXtapiLogging" value="true"/ >)

Cisco Unified Attendant Console Advanced BLF Plug-in Logging

By default, the logging level is set to *Full*.

Setting Logging to Detailed

The default logging level is usually sufficient to troubleshoot most common problems. You can set logging to detailed by changing the registry keys listed below. All keys have the root path *HKEY_LOCAL_MACHINE\SOFTWARE\Arc Solutions\Call Connect\Web Admin\Runtime Logging*.

✎
Note   You should make a backup of *HKEY_LOCAL_MACHINE\SOFTWARE\Arc Solutions\Call Connect\Web Admin\Runtime Logging* registry key before changing any registry settings mentioned below. After collecting logs with detailed logging settings, you should restore the default logging settings from the backed up registry; this will prevent huge logs from being generated.

Key	Setting
\API Clients Level	262 decimal (106 hex)
\Clients Level	7 decimal/hex
\Data Objects Process	YES
\Data Objects Level	7 decimal/hex
\API External APIs Level	519 decimal (207 hex)
\Internal Objects Level	7 decimal/hex
\Internal Objects Process	YES
\Management Level	263 decimal (107 hex)
\Request Response Level	7 decimal/hex
\System Level	263 decimal (107 hex)

Enabling Cisco TSP Logging

To enable Cisco TSP logging, do the following:

Step 1   If you have not already done so, create the folder, *C:\Program Files\Cisco\Logging\TSP*.

Step 2   In Control Panel, select **Phone and Modem**.

Step 3   Click the **Advanced** tab, select **CiscoTSP001.tsp**, and then click **Configure**.

Step 4   In the Cisco Unified Communications Manager TSP dialog box, click the **Trace** tab and then change the **Directory** to *C:\Program Files\Cisco\Logging\TSP*.

Step 5   Optionally, select **CTI Trace** and **TSPI Trace**, and select **Detailed**.

Step 6   Click OK.

CHAPTER **2**

Installation and Connectivity

This chapter describes problems that can arise during installation. It also covers problems cause by the connection between the Cisco Unified Attendant Console Advanced and external resources, such as the Cisco Unified Communications Manager or LDAP sources.

Unable to Connect to Cisco Unified Communications Manager

If you are unable to connect to the Cisco Unified Communications Manager, firstly run Cisco Unified Attendant Console Advanced Administration, choose **Engineering > CUCM Connection**, and then click **Test Connection**.

If this does not reveal the cause of the problem, do the following:

Step 1 Ensure the Application User username and password are correct by logging into the Cisco Unified Communications Manager with the same credentials.

Step 2 Ensure that the user is added to the Standard Cisco Unified Communications Manager Super Users Group.

Step 3 Ensure users have the following roles assigned:

- Standard AXL API Access
- Standard CTI Allow Calling Number Modification
- Standard CTI Allow Call Park Monitoring
- Standard CTI Allow Control of All Devices
- Standard CTI Allow Control of Phones supporting Connected Xfer and conf*
- Standard CTI Allow Control of Phones supporting Rollover Mode*
- Standard CTI Allow Reception of SRTP Key Material
- Standard CTI Enabled

Note * These are relevant only if you are using phone models 69xx, 7931, 7965, 89xx and 99xx on Cisco Unified Communications Manager 7.1.2 or greater.

Step 4 Ensure that the AXL Service is activated on the Cisco Unified Communications Manager.

Unable to Install Replication

The logging database (ATTLOG) is synchronized between Publisher and Subscriber using Microsoft Distributed Transaction Coordinator (MSDTC).

Occasionally during replication installation, the Subscriber ATTLOG is not installed because a component fails to begin a distributed transaction.

To fix this problem, do the following:

Step 1   Reinstall MSDTC following the steps in http://support.microsoft.com/kb/891801.

Note   The procedure in this link works for all Windows environments.

Step 2   Uninstall the subscriber.

Step 3   Reinstall the subscriber.

Step 4   Reinstall replication.

Replication Consuming Disk Space

Resilient systems use SQL replication. As part of the process, the SQL Server regularly cleans up its replication files to make sure that they don't occupy too much disk space. However in certain situations the snapshot folder may not be processed properly and may increase in size.

To solve this problem you need to access the DBData folder and grant full permissions to the user group *SQLServerMSSQLUser$<machine_name>$MSSQLSERVER*, so that it can clean up the folder periodically.

To add full permission to the group, do the following:

Step 1   In Windows Explorer, navigate to the C:\DBData folder.

Step 2   Right-click the folder and select **Properties**.

Step 3   In the Properties dialog box, select the **Security** tab.

Step 4   Click **Edit**.

Step 5   In the Permissions dialog box, select the SQLServerMSSQLUser$<machine_name>$MSSQLSERVER user group.

Step 6   Select the **Allow, Full control** check box.

Step 7   Click **OK**.

Step 8   Click **OK**.

Configuration Database (ATTCFG) Creation Hangs During Cisco Unified Attendant Console Advanced Installation

When installing Cisco Unified Attendant Console Advanced version earlier than 10.0, the process will hang during configuration database (ATTCFG) creation if the Cisco Unified Attendant Console Advanced CUCM Application User password contains an uppercase "X". This is because the password encryption process converts the "X" into a conflicting special character.

To avoid this issue, update your Cisco Unified Attendant Console Advanced CUCM Application User password so that it does not include "X".

Model Database Initially Too Small

Cisco Unified Attendant Console Advanced installation may fail with the following error message:

> Msg 1803: The CREATE DATABASE statement failed. The primary file must be at least 252MB to accommodate a copy of the model database.

This occurs if the initial size of the model database has been changed from its default value of 3MB.

You can fix the problem in the following way:

Step 1   Launch Microsoft SQL Server Management Studio and **Connect to Server**.

Step 2   In the navigation bar, expand **Databases > System Databases**.

Step 3   Right click **model**, and then select **Properties**.

Step 4   Under **Select a page**, select **Files**.

Step 5   For the database file **modeldev**, change the **Initial Size** to **3** (MB), and then click **OK**.

Step 6   Close Microsoft SQL Server Management Studio.

Step 7   Relaunch the Cisco Unified Attendant Console Advanced installation wizard and continue with the installation.

Changing SQL Server Host Name, Login and Password

If you are migrating Cisco Unified Attendant Console Advanced to a new server, this section describes how to change the following SQL Server information stored in the configuration database:

* the Hostname

* the SQL login and password.

You change this information using the following batch files, which run the Database Wizard:

* *ServerChange.bat*

* *SqlCfgChange.bat*

> **Note** If you are only changing the SQL server login name and password, run SqlCfgChange.bat *only*; otherwise run *both* batch files, one after the other, in any order.

The batch files are in the folder: \<*installation_folder*>*Utility**Server and SQL Change Tool*

The default <*installation_folder*> is *Cisco*.

Before Running the Batch Files

Before running the batch files, do the following on the server(s).

> **Note** If you have a resilient system, you need to do steps 1. and 2. below on *both* servers, even if you only want to change one server.

1. Stop the following services:
   – ActiveMQ
   – BLF Plug-in
   – Cisco Unified Attendant LDAP Plug-in
   – Cisco Unified Attendant Server
   – CUPS Plug-in service

2. Set the start-up type of all of these services to Manual.
   a. From **Control Panel**, select **Administrative Tools**.
   b. Select **Services**.
   c. For each of the above services, select the service, right-click, and then select **Properties**.
   d. In the **Properties** dialog box, click the **General** tab, set the **Startup type** to **Manual**, and then click **OK**.

3. If you have a resilient installation, uninstall replication.
   a. On the Publisher server, run **Cisco Unified Attendant Console Advanced Administration**.
   b. Use the **Navigation** control at the right side of the banner to select **Cisco Unified Replication**, and then click **Go**.

      The Cisco Unified Replication home page is displayed.
   c. Click **Replication Management**.

      The Replication Management page is displayed.
   d. Under **Server Details**, select the server to check or configure.
   e. Under **Replication Management**, click **Select** alongside the database to uninstall.
   f. Click **Uninstall Replication**.
   g. Click **OK** to confirm that you want to uninstall replication.

Running the Batch Files

> ✎
> **Note**   The following:
>
> - If you are only changing the SQL server login name and password, run SqlCfgChange.bat *only*; otherwise run *both* batch files, one after the other, in any order.
>
> - Use the batch files to update one server at a time: finish updating one before updating the other.

Running SqlCfgChange.bat

To change the SQL Server user name and password, do the following:

Step 1   Double-click SqlCfgChange.bat.

The **SQL Server Connection** page appears with all fields populated with the current data from the registry.

Step 2   In **User Name**, type the new user name.

Step 3   In **Password**, type a new password.

> ✎
> **Note**   The new user must have the necessary privileges and access rights as mentioned in the Cisco Unified Attendant Console Advanced installation instructions.

Step 4   Click **Test Connection**.

Step 5   If the message **Connected Successfully** appears, click **OK**.
If the message **Connection Failed** appears, re-type the user name and password and try again.

Step 6   Click **Next**.

The **Installation Progress** page appears. If a cross appears alongside any progress message it means that stage of the update has failed; you must run the SqlCfgChange.bat file again using valid data. Details of any errors are displayed on the **Errors** tab.

Step 7   Click **Finish**.

Running ServerChange.bat

To change the server host name, do the following:

Step 1   Double-click ServerChange.bat.

The **SQL Server Connection** page appears with all fields populated with the current data from the registry.

Step 2   Type the new **Server** name.

Step 3   Click **Test Connection**.

Step 4   If the message **Connected Successfully** appears, click **OK**.
If the message **Connection Failed** appears, re-type the user name and password and try again.

Step 5   Click **Next**.

The **Host Machine Name** page appears, containing the **Machine Name configured in the database** and **Host Name of your machine**.

Step 6   Click **Next**.

The **Installation Progress** page appears. If a cross appears alongside any progress message it means that stage of the update has failed; you must run the SqlCfgChange.bat file again using valid data. Details of any errors are displayed on the **Errors** tab.

Step 7   Click **Finish**.

Step 8   Make any necessary changes to your network to ensure that the server is accessible using the new host name.

Step 9   From within SQL Server Management Studio, run the following script to fix the SQL Server local server name:

\\<*installation_folder*>\\Utility\\Server and SQL Change Tool\\SQLServerChange.sql

Step 10   If you have a resilient system and have changed the Publisher host name, log in to the Subscriber server and use a text editor to open the *C:\\Apache\\ActiveMQ\\conf\\credentials.properties* file; change the line starting:

> othernode=

to specify the new publisher host name. For example:

> othernode=PAK-SZA-WIN2009

and then save the file.

After Changing the Servers

After updating all affected servers, on each do the following:

1. Set the start-up type of all services to **Automatic**.

2. Re-start both the server machines. This restarts the SQL server services.

3. If you have a resilient installation, re-install replication using Attendant Admin.

If the Conversion Fails

The batch files log everything they do in the file:

\\<*installation_folder*>\\Utility\\Server and SQL Change Tool\\DBInstallationLog.txt.

If the conversion fails, please supply Cisco support with a copy of this and the following files:

- The .bat and .xml files from the folder \\<*installation_folder*>\\Utility\\Server and SQL Change Tool\\

- The Arc Solutions registry

- The databases

- The files *CTI Server.exe.config* and *Cisco Presence Server Plug-in.exe.config* from the CTI and CUPS Server folders.

CTI Device Problems

If CTI devices are not registering on Cisco Unified Communications Manager, or their status is Unknown or Unregistered, do the following:

Step 1   On the Cisco Unified Attendant Console Advanced server, click the **Start** button, and then, on the **Start** menu, click **Run**, and then type **dialer**.

Step 2   In the Phone Dialer, choose **Tools > Connect Using** and check that the Synchronized CTI devices are listed
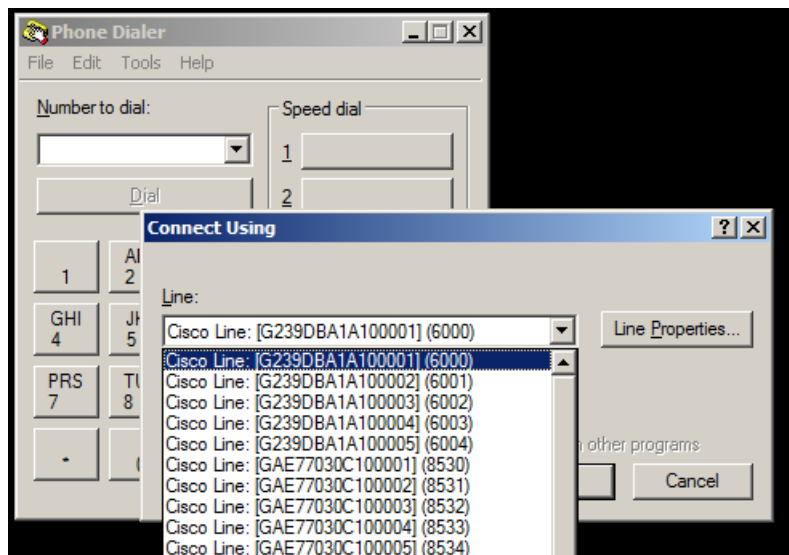
- If the devices are in the list, start the Cisco Unified Attendant Console Advanced Administration, choose **Engineering > Service Management**, and ensure that the Cisco Unified Attendant Console Advanced Server service is running.

- If the devices are not in the list, the TSP is not working correctly. Ensure that the TSP Configuration is correct and then reboot the machine to re-establish the TAPI connection.

Installing the TSP or Wave Driver via an RDP connection can cause the TSP to malfunction. For more information on this, see the Install and Upgrade Guides at http://www.cisco.com/en/US/products/ps7282/prod_installation_guides_list.html.

If the TSP and Wave Driver were installed via a session-based access method, you will have to reinstall them. If you need to uninstall the Cisco TSP follow the instructions in the *C:\Program Files\Ciscociscotsp.txt* file, which is created when the TSP is installed.

Here is another check you can perform:

Step 1   In Control Panel, select **Phone and Modem**.

Step 2   Click the **Advanced** tab, and verify there is only one CiscoTSP configuration.

- Verify that the TSP installed is the latest version available for download from the Cisco Unified Communications Manager Application Plug-in page.

- Verify that CTI devices are *not* associated with any other End or Application Users in the cluster.

Uninstalling the Wave Driver

To uninstall the wave driver, do the following:

Step 1 Click the **Start** button. In the search box, type **Device Manager**, and then, in the list of results, click **Device Manager**.

Step 2 Expand **Sound, video and game controllers**.

Step 3 Right-click **Cisco Unified Communications Manager TSP Wave Driver**, and then click **Uninstall**.

Step 4 Repeat this process for each instance of the Wave Driver installed.

Step 5 Reboot the machine and reinstall the TSP and Wave Driver as described in the installation guide at http://www.cisco.com/en/US/products/ps7282/prod_installation_guides_list.html.

Caution If the Cisco Unified Communications Manager is upgraded, you must also upgrade the Cisco Unified Attendant Console Advanced Server's TSP Installation.

Some CTI Devices Not Registering

If some of the CTI devices configured in the Cisco Unified Attendant Console Advanced Administration do not register, do the following:

Step 1 In Control Panel, select **Phone and Modem**.

Step 2 Click the **Advanced** tab, select **CiscoTSP001.tsp**, and then click **Configure**.

- Verify devices are *not* associated with any other End User or Application User in the cluster.

- Select the **Wave** tab and ensure that the **Desired number of possible Automated Voice lines** is set to 255. If you change this setting, you must also uninstall and then re-install the Wave Driver (as described in Uninstalling the Wave Driver, page 2-8) for the change to take effect.

Note If you are using Cisco Unified Communications Manager 8.x, this is done automatically by the Cisco Unified Attendant Console Advanced Installation Wizard, and the new Cisco Media Driver is used instead of the TAPI Wave Driver.

Callers To Main Reception Hear Fast Busy Tone

If callers to the main reception are hearing the fast busy tone, do the following:

- Ensure that the CTI Route Point associated with this queue is registered in Cisco Unified Communications Manager. If it is registered, the problem is probably between the gateway and the Route Point. Ensure the gateway has the correct Calling Search Space to reach the partition that is configured against the CTI Route, and that the Translation Pattern is correct.

- If all Cisco Unified Attendant Console Advanced CTI devices are unregistered refer to Appendix 2, "CTI Device Problems".

- If some CTI devices are registered and some unregistered refer to Appendix 2, "Some CTI Devices Not Registering".

- In versions prior to 8.6, if only the CTI Route Point for that queue is unregistered refer to SR <CSCtq00285 >

CTI Devices Not Synchronizing

Note   If you have upgraded from a Cisco Unified Attendant Console Advanced Version earlier than 8.0.3, you must change your End User Account to an Application User Account. If you do not do this, attempts to synchronize the Cisco Unified Attendant Console Advanced Server with the Cisco Unified Communications Manager will fail.

If CTI Devices are not synchronizing to Cisco Unified Communications Manager, do the following:

Step 1   In Cisco Unified Attendant Console Advanced Administration, choose **System Configuration > Synchronize with CUCM** and select the Synchronize with CUCM.

Step 2   If the devices fail to synchronize there will be an error code, for example 8500. Reference this code in the *Cisco Unified Attendant Console Advanced Administration and Installation Guide*, located at http://www.cisco.com/en/US/products/ps7282/prod_installation_guides_list.html.

LDAP Server Not Synchronizing Contacts

If the LDAP server is not synchronizing contacts, do the following:

Step 1   In Cisco Unified Attendant Console Advanced Administration choose **Engineering > Service Management** and select the information icon for the LDAP Service.
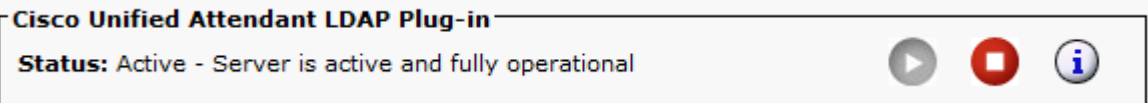
The LDAP Status window appears, containing the number of active connections and active synchs, as well as the connectivity status. For example:
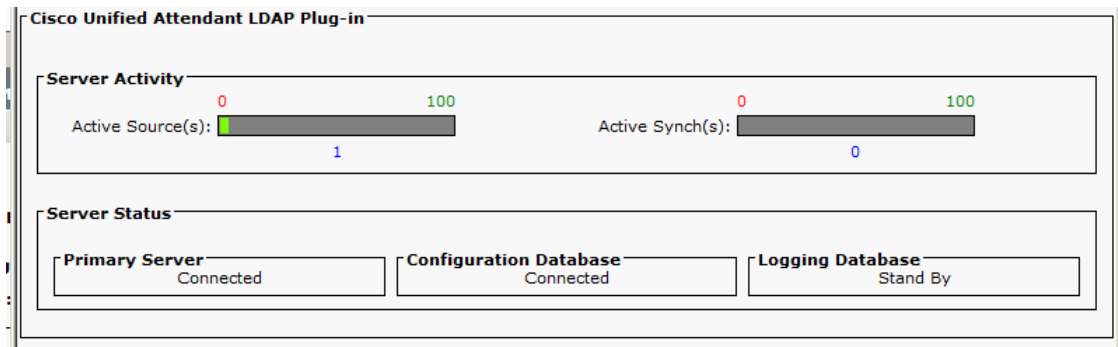
Step 2   If Primary Server connection is displaying as Not Connected, do the following:

    a.   Click the **Start** button, and then, on the **Start** menu, click **Run** and then type **Regedit**.

    b.   Locate HKEY_LOCAL_MACHINE\Software\Arc Solutions\Call Connect\LDAP\Defaults and ensure that the IP address of the LDAP Server is the same as the IP address of the Cisco Unified Attendant Console Advanced Server. If it is not the same, stop the LDAP Service, change the key in the registry to the correct IP address, and then restart the LDAP Service.

The LDAP Status window should now display all servers as Connected.

Operators Receive *Invalid Destination* Error When Transferring Calls

Invalid Destination means that the TSP is unable to access the number dialed from the Console: either the number was dialed incorrectly or the phone or CTI Service Queue Port does not have the correct CSS to reach the destination.

Step 1   If the number in the directory is correct, in Cisco Unified Attendant Console Advanced Administration choose **User Settings > General Settings** and ensure that the maximum internal extension length is sufficient to cover all the digits in the number dialed by the operator (including the voicemail prefix if configured).

If the number dialed exceeds the configured maximum internal extension length, the prefix will be added to that number.

Step 2   If step 1 does not resolve the issue, the problem is most likely to be with the Calling Search Space. To check this, ensure that the Service Queue CTI Ports have the necessary CSS to reach the intended destination:

   a.   With Cisco Unified Attendant Console Advanced Server shut down, click the **Start** button, and then, in the **Start** menu, click **Run**, and then type **dialer**.

   b.   Connect to one of the Service Queue devices.

   c.   Dial the number the operator is attempting to transfer calls to.

   d.   If the number does not ring, the CSS on the CTI Port needs to be updated to allow sending calls to the destination Partition.

   e.   If the call is successful, determine whether the transfer problem occurs only with external calls by placing a call from an internal extension directly to the CTI Route Point associated with the queue. If Direct Transfers are enabled (see Enabling Direct Transfers, page 4-5) and the operator can transfer the internal call, the issue is with the CSS on the gateway. As Cisco Unified Attendant Console Advanced uses TSP and CTI to move calls, the function of CTI Redirect performed on the call forces it to inherit the CSS of the gateway which does not always allow calls to all phones. Modify the gateway CSS to accommodate this and resolve the problem.

Changing Cisco Unified Attendant Console Advanced Server IP Address

The Windows registry on the Cisco Unified Attendant Console Advanced Server contains many reference to the server's IP address, which you need to change. You should back-up your registry before making any changes.

Step 1   Use Windows Server Manager to stop the Cisco Unified Attendant Console Advanced LDAP Plug-in and Cisco Unified Attendant Console Advanced Server Services.

Step 2   Update the following registry keys with the Cisco Unified Attendant Console Advanced server IP address or hostname (recommended).

   • HKEY_LOCAL_MACHINE\SOFTWARE\Arc Solutions\Call Connect\Configuration\Defaults

- – Web Server
- HKEY_LOCAL_MACHINE\SOFTWARE\Arc Solutions\Call Connect\Configuration Database
  - – Server
- HKey_Local_Machine\SOFTWARE\Arc Solutions\Call Connect\Defaults
  - – CTI Server Name
  - – Last Connected Server
  - – Presence Server Name
  - – Server Name
- HKEY_LOCAL_MACHINE\SOFTWARE\Arc Solutions\Call Connect\LDAP Synchronize Server\CT Connection\Primary
  - – Server Name
- HKEY_LOCAL_MACHINE\SOFTWARE\Arc Solutions\Call Connect\LDAP Synchronize Server\Defaults
  - – Server Name
- HKEY_LOCAL_MACHINE\SOFTWARE\Arc Solutions\Call Connect\Logging Database
  - – Server

XML Configuration files

Cisco Unified Attendant Console Advanced uses the following XML configuration files:

- CTI Server, see CTI Server, page 2-12.
- CUP Server, see CUP Server, page 2-13.
- Database configuration file, see Database Configuration file, page 2-13.

These all contain the Cisco Unified Attendant Console Advanced Server IP Address/hostname, which you must update.

CTI Server

The CTI Server configuration file *C:\Program Files\Cisco\CTI Server\CTI Server.exe* contains the key:

<add key="ServerIP" value="xxx"/ >

Update this with the new IP Address/hostname of the Cisco Unified Attendant Console Advanced Server.

Note   The location may vary slightly in different versions of the Cisco Unified Attendant Console Advanced Server.

CUP Server

The CUP Server configuration file *C:\Program Files\Cisco\CUPS\Cisco Presence Server Plug-in.exe* contains the key:

<add key='ServerIP' value='xxx'/ >

Update this with the new IP Address/hostname of the Cisco Unified Attendant Console Advanced Server.

Note The location may vary slightly in different versions of the Cisco Unified Attendant Console Advanced Server.

Database Configuration file

The *Config.DB* file is located in *C:\Program Files\Cisco\Utilities*.

Step 1 Open this file using a text editor and locate the following lines:

ATTCFG,Configuration DB,*xxx.xxx.xxx.xxx*,sa,)hh > (j]n]j)

ATTLOG,Logging DB,*xxx.xxx.xxx.xxx*,sa,)hh > (j]n]j)

where *xxx.xxx.xxx.xxx* is the IP address.

Step 2 Change the IP address above to the new IP Address/hostname.

Step 3 Save the file.

Clients

You also need to update the Cisco Unified Attendant Console Advanced clients with the correct Cisco Unified Attendant Console Advanced Server IP Address/hostname.

Note Log out and close the client before making any changes.

In each client, set the following keys in HKEY_LOCAL_MACHINE\SOFTWARE\Arc Solutions\Call Connect\Defaults:

- Last Connected Server
- Server Name

Unable To Make Online Changes Because Channel Link Is Down

The error *Unable to make online changes because Channel Link is down* is displayed when the ActiveMQ service is not active. To start the service, do the following on the host server:

Step 1   In Control Panel, select **Administrative Tools**.

Step 2   In the browser, double-click **Services**.

Step 3   In the Service window, locate the ActiveMQ service.

Step 4   If the status of the service is blank (meaning that it is stopped), select the service and then click **Start**.

Note   If the ActiveMQ service fails to start this is probably because the latest version of Java is not installed. To install the latest version of Java, visit java.com and follow the instructions.

CHAPTER **3**

Cisco Unified Attendant Console Advanced Administration Issues

This chapter describes problems that can occur with Cisco Unified Attendant Console Advanced Administration.

Cisco Unified Attendant Console Advanced Administration Web Pages Do Not Display Properly

If, when you access Cisco Unified Attendant Console Advanced Administration, the web page does not display properly– images do not load, and the menus do not appear–it suggests that you have not configured Internet Information Service (IIS) correctly.

Cisco Unified Attendant Console Advanced requires IIS 6.0 or later, with the Static Content role service added.

For instructions on how to manually install IIS, and the role services that it must include, see the *Cisco Unified Attendant Console Advanced Administration and Installation Guide*.

Unable to Navigate Cisco Unified Attendant Console Advanced Administration and Menus Stop Working

There is a bug in the ASP.NET browser definition files that are part of the Microsoft .NET Framework 2.0 SP2 and .NET Framework 3.5 SP1. The bug causes ASP.NET to see Internet Explorer (IE) 10 as an unknown browser and, as a result, to use a lower level definition that does not support certain features including JavaScript.

You can download a Microsoft hot-fix for this problem from http://support.microsoft.com/kb/2600100/en-us#appliesto. Install the hot fix on the Cisco Unified Attendant Console Advanced Server computer.

Alternatively, you can turn on Compatibility View in IE, as described at http://windows.microsoft.com/en-GB/internet-explorer/use-compatibility-view#ie=ie-10-win-7.

Unable to Create Queues or Operators

If you cannot create queues or operator profiles under **User Configuration > Queue Management** or **User Configuration > Operator Management**, check the license window for correct licenses.

Choose **Help > License** and ensure that the current number of operators is less than the licensed amount

Licenses
Product

Cisco Unified Attendant Console Sessions - 3 User License

Cisco Unified Enterprise Attendant Console Server

Add more operator licenses to allow for the creation of more operator usernames and queues.

Unable to activate LAC on Cisco Website

If you cannot activate License Activation Code (LAC) on the www.cisco.com/go/ac website you may see these error messages:

- *No more activations*

  The LAC has already been activated. Ensure that the correct LAC was entered and that it is the original LAC shipped with the software.

  If transferring the server installation to new hardware, the license will become invalid and the server will have to be relicensed. The LAC can be refreshed, for this contact Cisco TAC.

- *Invalid license code*

  If the LAC was typed in properly and this error is received, ensure that the correct Cisco Unified Attendant Console Advanced Edition is being activated.

- *A license file is delivered successfully, however only the Operator Licenses appear in the Administration License screen*

  This indicates that a LAC has already been activated for a specific server. The website recognizes this based on the registry code entered. If you are unable to register your server, contact Cisco TAC.

Logging In to Cisco Unified Attendant Console Advanced Administration Causes "DB Error" Message

If logging in to Cisco Unified Attendant Console Advanced Administration causes this error, do the following:

Step 1 Check Windows Services and ensure that the Cisco Unified Attendant Console Advanced Server service is started.

If the service is stopped, start it and ensure that it is set to start automatically.

Step 2 If the service is started, check the log file: C:\Program Files\Cisco\Logging\SRV\Log\icdinit.log. This file logs each server start and will contain error messages describing why the Cisco Unified Attendant Console Advanced server cannot start.

Step 3 If the error messages are *Unable connect to database ATTCFG* and *Unable to connect to database ATTLOG* ensure that the Microsoft SQL Server service is started and set to automatically start.

Step 4 Sometimes SQL does not allow the Cisco Unified Attendant Console Advanced service to log onto the databases.

Step 5 Using Microsoft SQL Server Studio Management ensure the following:

- BUILTIN\ADMINISTRATORS and the sa username have system administrator permissions assigned.

- The account is not locked out.

Deleting All Directory Entries from Cisco Unified Attendant Console Advanced

To delete all directory entries from Cisco Unified Attendant Console Advanced, do the following:

Step 1 In Cisco Unified Attendant Console Advanced Administration:

- **a.** Choose **System Configuration > Directory Source Management**.

- **b.** Find and select the directory from which to delete entries.

- **c.** Click **Directory Rules**.

- **d.** Select the default rule.

- **e.** Click **Add New**, and then create a new **Rule Filter** that *does not match any of the contacts in the directory*. For example *telephonenumber Equal to ABCD*.

- **f.** **Save** the Rule Filter.

- **g.** Choose **Engineering > Service Management**, stop the Cisco Unified Attendant Console Advanced LDAP Plug-in, and then start it again.

Step 2 Log in to an Cisco Unified Attendant Console Advanced client. If no directory entries are displayed then the filter successfully deleted the entries.

If directory entries still exist repeat Step 1, ensuring that the rule filter excludes all directory contacts.

Step 3   Once the deletion has worked successfully, use Cisco Unified Attendant Console Advanced Administration to:

a.   Delete the Rule Filter created in Step 1.

b.   Stop and then start the Cisco Unified Attendant Console Advanced LDAP Plug-in.

Error -206 When Synchronizing to Cisco Unified Communications Manager

The following error message can appear when you use Cisco Unified Attendant Console Advanced Administration to synchronize your CTI ports with Cisco Unified Communications Manager v8.6 to 9.x (CSCue69477):

Error Code: -206

Error Description: The specified table (owneruserid) is not in the database.

This occurs when the Phone Template Configuration includes a Subscribe Calling Search Space under the Protocol Specific Information.

To prevent this error, edit the Phone Template Configuration to include an Owner User ID under the Device Information. We recommend that you use the Application User ID allocated for Cisco Unified Attendant Console Advanced for the Owner User ID.

Invalid Contacts Copied During Synchronization

When Cisco Unified Communications Manager end users have been configured using the Cisco Bulk Administration Tool (BAT) and the user template has got the *Default PIN to Telephone Number* option selected, Cisco Unified Attendant Console Advanced directory synchronization may copy across invalid contacts from the template. For example:

		First name	Last name	Department	Main Extension
☐	Select		**TELEPHONENUMBER**		**PRIMARYEXTENSION**
☐	Select		**TELEPHONENUMBER**		**PRIMARYEXTENSION**

Select contact profile

To prevent these invalid contacts from being copied, run Cisco Unified Attendant Console Advanced Administration, and then create a filter against each Directory Rule to synchronize only those contacts that have their *tkuserprofile* parameter equal to 1, as shown below.

Cisco Unified Attendant Console Advanced Client Software Issues

This chapter describes the following Cisco Unified Attendant Console Advanced client software issues:

- Directory Issues
- Contact Phone Status Shows Out Of Service
- Client Preferences Are Not Saved
- Remove Call Park Window
- Enabling Direct Transfers

Directory Issues

This section describes the following directory issues:

- Directory Does Not Display and Console Shows Database not connected
- Contact Phone Status Not Displayed
- Contact Phone Status Shows Out Of Service

Directory Does Not Display and Console Shows *Database not connected*

If the directory does not display and console shows Database not connected, log on to the Cisco Unified Attendant Console Advanced client PC and do the following:

Step 1 Verify that the Windows User has Full Control access to the *HKEY_LOCAL_MACHINE\Software\Arc Solutions* registry key. For instructions on how to grant this access level, see Client Preferences Are Not Saved, page 4-3.

✎ **Note** If the Cisco Unified Attendant Console Advanced version is earlier than 8.0.3 verify that *HKEY_LOCAL_MACHINE\Software\Borland* has this access as well.

Step 2 Verify that the Cisco Unified Attendant Console Advanced Server can be pinged from the command line by both IP Address and Hostname. If it cannot be reached using Hostname, have this added to DNS or to the host file on the machine.

Step 3 On the Cisco Unified Attendant Console Advanced Server, ensure that the contact database is populated:

  a. Open a synchronization log file in C:\Program Files\Cisco\Logging\LDAP\Log\SSLog_xxxx.txt.

  b. Check that the following lines show in the logs:

  7/1/2011 6:56:41.317 [Synchronization Start AT:7/1/2011 6:56:41.317] "[MUsage: MU:9516,MPU:9520,VMU:5268,VMPU:5288,P PU:34,NPPU:8]" EXS000001

  7/1/2011 6:56:41.723 CTH100001   INTNL   John   Smith   1234   NoData   Updated   Success   EXS000001
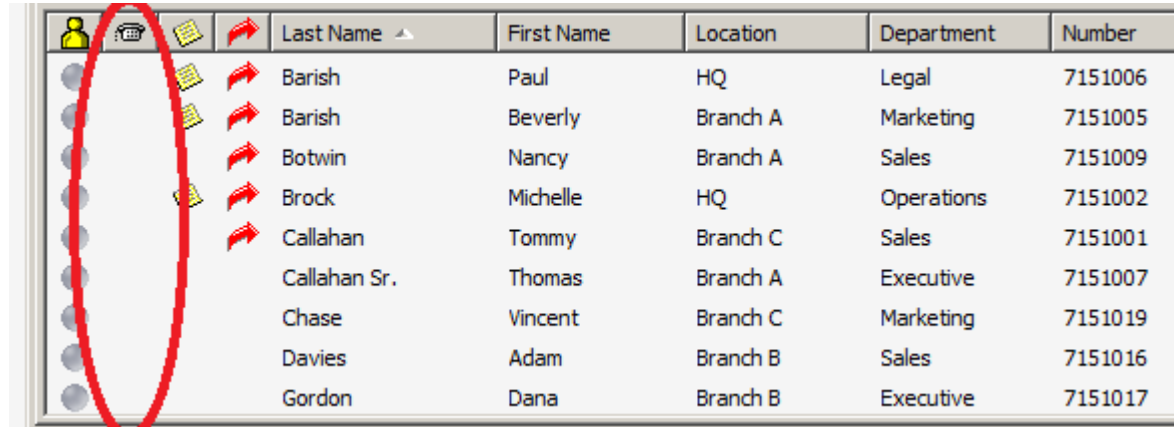
  7/1/2011 6:56:42.426 CTH100005   INTNL   Jane   Doe   5555   NoData   Inserted   Success   EXS000001

  If the lines are there, there are contacts in the database.

  c. Start the SQL Configuration Manager utility.

  d. In the utility, choose **Network Configuration** and make sure that **TCP/IP** and **Named Pipes** connections are enabled.

  e. If you have to enable either of them, restart SQL for the changes to take effect.

Contact Phone Status Not Displayed

If the phone status column in the directory is empty; for example:

This may be caused by the following:

- The BLF Plug-in on the Cisco Unified Attendant Console Advanced Server is not running. To fix this, log in to Cisco Unified Attendant Console Advanced Administration, choose **Engineering > Service Management**, and then start the BLF Plug-in.

- Cisco Unified Attendant Console Advanced client is unable to reach the BLF Plug-in service on the Cisco Unified Attendant Console Advanced server. If so, ensure the BLF Plug-in is running by pinging the Cisco Unified Attendant Console Advanced Server by hostname and IP address—it should be reachable by IP address and hostname. If it is not reachable by hostname, add the IP address and hostname in the windows hosts file.

Contact Phone Status Shows Out Of Service

If the phone status of an extension displays out-of-service status regardless of the actual status of the phone, do the following:

- Verify that the device in question is registered in Call Manager.

- The device might just be taking some time to display status: press F2 to bring up the status window which will send the request right away

- If the F2 window also displays out of service or no phone status at all close this window and press F12 to bring up the contact details.

- In the contact details window click the Numbers tab:

  - Ensure that Use Device Name is checked (enabled)

  - Ensure the Device Name is that of the device that should be monitored

  - If the device name is incorrect manually add the correct device name or if extension mobility is being used, remove any device name present

  - Close the contact details window and refresh the BLF status (by pressing F2 on the contact or clearing the search and searching for that contact again)

  - Ensure that the Device Number is an exact match to the Cisco Unified Communications Manager, any mismatch (including Spaces) will stop BLF from working,

  - If entries are Extension Mobility Users, ensure that allow control of Device from CTI is selected against the End User, the Device Profile and the logged out phone device. If you need to enable this option, the user will need to log out and back into the phone in order to start getting BLF information.

Client Preferences Are Not Saved

If the operator configures preferences on their PC, but these settings are lost when they restart their PC, you need to amend the security settings for the Arc Solutions registry key so that all users have **Full Control** of it.

Step 1   On the Cisco Unified Attendant Console Advanced client PC, log in as **Local Administrator**.

Step 2   Ensure that all Cisco applications are closed.

Step 3   Click the **Start** button, and then, from the **Start** menu, select **Run**.

Step 4   In the **Run** dialog box, type **Regedit**.

The Windows Registry Editor opens.

Step 5   Browse to **HKLM > Software > Arc Solutions**.

Step 6   Right-click the **Arc Solutions** registry key, and select **Permissions**.

Step 7   The **Permissions for Arc Solutions** dialog box appears. For example:
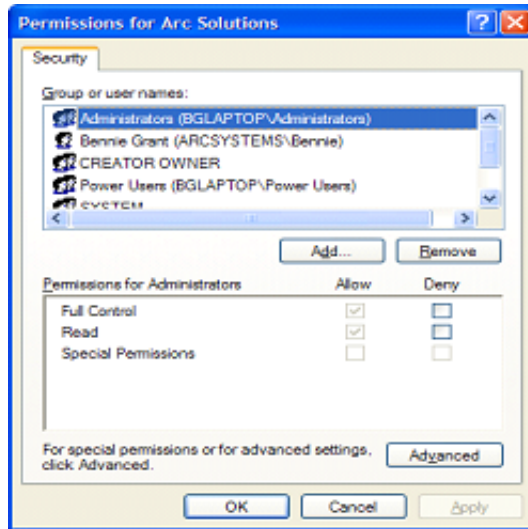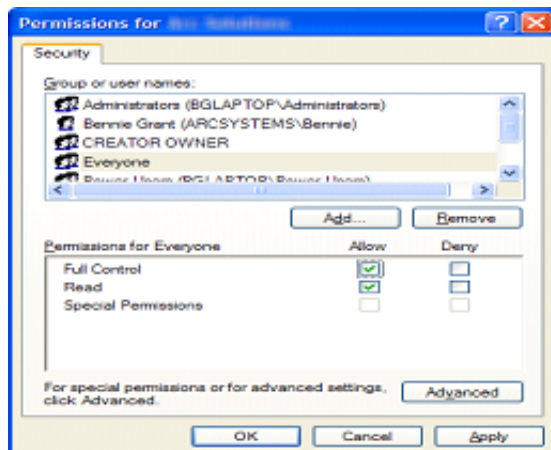

Step 8   Click **Add**.

Step 9   In **Enter the object name to select**, type **<domain_name> \Everyone**, where <domain_name> is the domain that a standard desktop user logs in to.

Step 10   Click **OK** to add the user Everyone.

Step 11   From Group or user names, select **Everyone**, and then, in the Permissions for Everyone list, select the **Allow Full Control** check box, to grant full access to this registry key.

Step 12   Click **Advanced** and then select the **Replace all existing inheritable permissions on all descendants with in heritable permissions from this object** check box.

Step 13   Click **Apply**, and then click **OK**.

The access rights have now been granted and Cisco Unified Attendant Console Advanced will now save settings.

Remove Call Park Window

If customer is not using the Call Park functionality with Cisco Unified Attendant Console Advanced, they can remove this window from the screen.

To hide the Call Park window, do the following:

Step 1 On the Cisco Unified Attendant Console Advanced client PC, log in to the machine as **Local Administrator**.

Step 2 Ensure that all Cisco applications are closed.

Step 3 Select **Start > Run**, and type *Regedit* in **Open**.
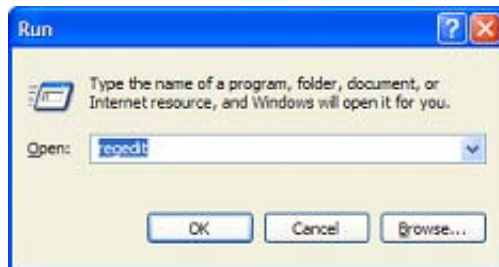
The Windows Registry Editor opens.

Step 4 Browse to **HKLM > Software > Arc Solutions\Call Connect\Operator\Defaults**.

Step 5 Locate the **Allow Call Parking** registry key, double-click it, change the value to **No**, and then click **OK**.

Step 6 Close the registry editor, and reopen the Cisco Unified Attendant Console Advanced application.

The call park window has been removed.

Enabling Direct Transfers

Direct Transfers can be enabled on the Cisco Unified Attendant Console Advanced client PC. You should consider doing this if you want to achieve either of the following:

- When the operator performs a blind transfer, the recipient of the transfer shows the caller ID of a CTI Port (the Cisco Unified Attendant Console Advanced *Service* device) while the call is ringing on the IP Phone, however the desired behavior is that the recipient sees the CLI of the caller.

- When a call has been transferred, the caller hears Music-on-Hold while the call is ringing on the other IP Phone, the desired behavior is for the caller to hear the ring tone.

When the operator performs a blind transfer via the Cisco Unified Attendant Console Advanced application, the original caller is moved to a CTI Port (the *Service* device). This CTI Port then answers the call, and makes the transfer to the target extension. This call flow enables Cisco Unified Attendant Console Advanced's *transfer recall* functionality, however this default functionality has the effects listed above.

You can disable this functionality (called *enabling direct transfers*), but when you do so, Transfer Recall functionality is lost (this is usually acceptable, becauze IP phone users have voicemail.

Technical Considerations When Enabling Direct Transfers

When the Cisco Unified Attendant Console Advanced application performs a standard blind transfer, it is using a specific CTI function: Redirect (SLDST_REDIRECT_RESET_ORIG_CALLED). This redirects the call from the Attendant Console handset to the Service Queue (CTI Port). This in turn will use the first line to hold the call and the second to make the call out - in the same manner as a consult transfer. When the target recipient picks up, the two calls are automatically joined together.

When direct transfers is enabled, the blind transfer function still utilizes this same CTI function, however in this scenario the call passes the Service Queue and redirects the call instantly to the physical handset. Therefore, the caller will hear ringing as the call is no longer being placed on hold on a CTI Port. The call will also display the original Caller-ID rather than the Caller ID of the CTI Port.

As the CTI redirect function works slightly differently to a standard blind transfer that would be invoked via a physical handset, the call is never placed on hold. Due to this, the redirect of the call will therefore be using the Calling Search Space of the originating device - in the case of an external call that is inbound to Cisco Unified Attendant Console Advanced, this will be the Calling Search Space of the PSTN gateway.

If the gateway has a restricted Calling Search Space that only allows calls to internal extension, and a call into the Attendant Console must be transferred to an external number - in this scenario it would fail, and a message of Invalid Destination will be displayed on the Cisco Unified Attendant Console Advanced application. This is because the originating Calling Search Space does not allow the call to be sent to an external location.

> **Note**   If Direct Transfer is enabled, a prerequisite is that the gateway is configured with the relevant CSS to enable calls to be redirected back out to an external number. However not all Cisco Unified Communications Manager customers are willing to make changes to their CSS or Gateway configuration.
>
> *If you wish to enable Direct Transfers you must accept that the gateway's CSS MUST be configured to allow calls in to be redirected back to an external location.*

Procedure

To enable direct transfers:

Step 1   On the Cisco Unified Attendant Console Advanced client PC, log in to the machine as **Local Administrator**

Step 2   Ensure that all Cisco applications are closed

Step 3   Select **Start > Run**, and type *Regedit* in **Open**.
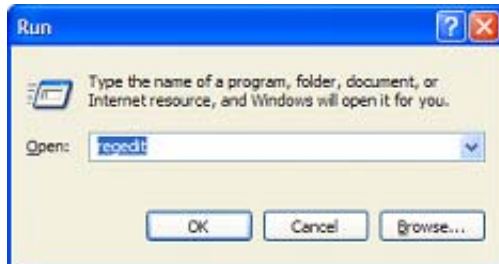
The Windows Registry Editor opens.

Step 4   Browse to **HKLM > Software > Arc Solutions\Call Connect\Operator\Defaults**.

Step 5   Locate the **Direct Transfers** registry key, double-click it, and change the value to one of these:

- **All** - Enabled for all Transfer types. Normally, you select this.

- **Off** - Direct Transfers are disabled and Service Queue will be used (Default operation)

- **Internal** - This will only enable Direct Transfers to internal numbers. Transfers to external numbers will still go via the Service Queue.*

- **External** - This will only enable Direct Transfers to external numbers. Transfers to internal numbers will still go via the Service Queue.*

* Internal and External numbers are determined by the configuration in Cisco Unified Attendant Console Advanced Administration under User Configuration > General Properties.

Step 6   Click **OK**.

Step 7   Close the registry editor, and reopen the Cisco Unified Attendant Console Advanced application.

Direct Transfers is now enabled.