Cisco CallManager System Issues

This section covers solutions for the following most common issues related to a Cisco CallManager system.

- Cisco CallManager System Not Responding
- Replication Fails Between the Publisher and the Subscriber
- Slow Server Response
- JTAPI Subsystem Startup Problems
- Security
- Virus Protection

Cisco CallManager System Not Responding

This section covers the following issues for a Cisco CallManager system not responding:

- Cisco CallManager System Stops Responding
- Cisco CallManager Administration Page Does Not Display
- Errors Occur When Attempting to Access the Cisco CallManager Administration Page from the Browser
- You Are Not Authorized to View This Page
- Errors Occur When Attempting to Access the Cisco CallManager Administration Page from a Browser on a Remote Server
- Name to Address Resolution Failing

- Default Web Site Under IIS Has Improper Setting
- Port 80 Is Blocked in One or More Routers Between Your Local Browser and the Cisco CallManager Server
- You Attempt to Access a Machine Where Access Is Explicitly Denied
- Improper Network Setting Exists in the Remote Machine Where You Are Browsing
- Replication Fails Between the Publisher and the Subscriber

Cisco CallManager System Stops Responding

Symptom

The Cisco CallManager system does not respond.

Possible Cause

When the Cisco CallManager service (ccm.exe) crashes, the following message displays in the System Event log:

```
The Cisco CallManager service terminated unexpectedly.
It has done this 1 time. The following corrective action
will be taken in 60000 ms. Restart the service.
```

Other messages you may see in the event of a crash are:

```
Timeout 3000 milliseconds waiting for
Cisco CallManager service to connect.
```

The Cisco CallManager failed to start due to the following error:

```
The service did not respond to the start or control request in a
timely fashion.
```

At this time, when devices such as the Cisco IP Phones and gateways unregister from the Cisco CallManager, users receive delayed dial tone, and/or the Cisco CallManager server freezes due to high CPU usage. For event log messages not included here, view the Cisco CallManager Event Logs.

The Cisco CallManager service can crash due to one of the following reasons:

- An unexpected event occurs in the Cisco CallManager service. This crash adds an entry to the existing Dr.Watson log and a user.dmp is generated in the C:\Documents and Settings\All Users\Documents\DrWatson folder. Refer to the "Unexpected Event" section on page 4-3.
- The Cisco CallManager service does not have enough resources such as CPU or memory to function. Generally, the CPU utilization in the server is 100 percent at that time. Refer to the "Lack of Resources" section on page 4-6.

Depending on what type of crash you experience, you will need to gather different data that will help determine the root cause of the crash.

Related Topics

- "Checking Settings on the Backup Utility to Avoid High CPU" section on page 4-6
- "Setting up Performance Monitor Counter Logs" section on page 4-7

Unexpected Event

Use the following procedure as a guide for what information to gather and provide to TAC in the event of Cisco CallManager crash.

Procedure

Step 1 Collect Cisco CallManager traces 15 minutes before and after the crash. The traces are located at **C:\Program Files\cisco\trace\ccm**.

Step 2 Collect SDL traces 15 minutes before and after the crash. Traces are located at C:\Program Files\cisco\trace\sdl\ccm.

Step 3 Locate the System and Application Event log files in the Event Viewer by selecting **Start > Programs > Administrative Tools > Event Viewer**, clicking on **System Log**, and selecting **Action > Save Log** as and save the log. Also do this for the Application Log.

Step 4 Ensure that the SdlMaxUnhandledExceptions parameter is set to 0 (zero) for each Cisco CallManager.

Step 5 Locate the Dr. Watson log file located at **C:\Documents and Settings\All Users\Documents\DrWatson**.

The file is named Drwtsn32.log.

Step 6 Locate the user.dmp file at C:\Documents and Settings\All Users\Documents\DrWatson.

Note These files can be very large. Zip them before sending them to the TAC. It is important to note that these files hold the information the TAC engineer and developers need to determine the cause of the crash.

Step 7 Open the Dr. Watson log file in Notepad and view the most recent entry to see if an entry for the ccm.exe has been added. Begin at the bottom of the file, and search for `Application exception occurred`, which takes you to the latest crash.

The following is an example of the header of a crash entry in the Drwtsn32.log file.

```
Application exception occurred:
            App:  (pid=680)
            When: 3/8/2003 @ 14:01:06.978
            Exception number: e06d7363
```

Along with the date of the crash, there is a PID. If that PID corresponds to the PID for ccm.exe in the task list, then you know that Cisco CallManager crashed.

Note In the following example, the PID = 680. From the list, you see that this also corresponds to ccm.exe.

The task list in the Drwtsn32.log looks similar to the following:

Example

```
PID  PROCESS
   8 System.exe
 212 SMSS.exe
 240 CSRSS.exe
 264 WINLOGON.exe
 292 SERVICES.exe
 304 LSASS.exe
 424 termsrv.exe
 520 svchost.exe
 560 msdtc.exe
```

```
 696 DLLHOST.exe
 736 Ipvmsapp.exe
 752 DLLHOST.exe
 824 AudioTranslator.exe
 848 RisDC.exe
 860 LogoutService.E.exe
 884 DCX500.exe
 936 svchost.exe
 980 LLSSRV.exe
1028 sqlservr.exe
1112 ntpd.exe
1140 rcmdsvc.exe
1172 regsvc.exe
1176 mstask.exe
1204 SNMP.exe
1244 WinMgmt.exe
1260 cpqnimgt.exe
1284 cqmgserv.exe
1296 cqmgstor.exe
1308 sysdown.exe
1372 cqmghost.exe
1524 aupair.exe
1552 sqlagent.exe
 276 svchost.exe
2400 inetinfo.exe
2412 explorer.exe
2752 sqlmangr.exe
2700 taskmgr.exe
2704 mmc.exe
 680 ccm.exe
 868 DRWTSN32.exe
```

If there is no list of the PIDs, look at the timestamp of the last entry of the Drwtsn32.log and the timestamp of the error in the Event Log (refer to the Cisco CallManager Service Crash Description section). If they are the exact same time, it is likely that you experienced an Unexpected Event Cisco CallManager crash.

What makes a crash unique is the stack trace. This is why you will see the requested complete Drwtsn32.log file in the Unexpected Event section.

If the PID for the day of the crash is not ccm.exe or the timestamp did not correspond, then you are most likely experiencing a lack-of- resource crash or a crash of another process.

Lack of Resources

Use the following procedure if there is a lack of resources crash.

Procedure

Step 1 Collect Cisco CallManager traces 15 minutes before and after the crash. The traces are located at **C:\Program Files\cisco\trace\ccm**.

Step 2 Collect SDL traces 15 minutes before and after the crash. Traces are located at **C:\Program Files\cisco\trace\sdl\ccm** .

Step 3 Collect perfmon traces if available.

Step 4 If the traces are not available, start collecting the perfmon traces and track memory and CPU usage for each process running on the server. To set up perfmon traces go to the Setting up Performance Monitor Counter Logs section. These will help in the event of another lack of resources crash.

Checking Settings on the Backup Utility to Avoid High CPU

To avoid a system crash due to the Cisco IP Telephony Applications Backup running for an extended time at high CPU utilization, ensure that you are running the latest Cisco IP Telephony Applications Backup.

If you are running Cisco CallManager 3.1(3a)spC and later or Cisco CallManager 3.2(1)spA and later, per Cisco bug ID CSCdt91655 (registered customers only) , the new Backup utility runs at low priority by default.

Registered customers can download the latest version of Cisco IP Telephony Applications Backup from the Voice Software download page under Cisco CallManager.

Prior to this change, the previous versions used a tab called **Performance** to change the Base Priority of the process running the Cisco IP Telephony Applications Backup application. Changing the performance to below normal or low ensures that this process does not compete with other processes (that are running at normal Base Priority) for CPU, such as ccm.exe.

Setting up Performance Monitor Counter Logs

In order to verify the processes running, and the amount of CPU and memory that are being consumed, use the following procedure to gather counters for the crash.

Procedure

Step 1 Choose **Start > Programs > Administrative Tools > Performance**.

Step 2 Choose **Performance Logs > Alerts > Counter Logs** from the Performance Monitor.

Step 3 Choose **Action > New log settings** and enter a name for the counter log.

Step 4 Click **Add** in the counters page.

Use the local computer counters and make sure that you are configuring this directly on the Cisco CallManager that is experiencing the crash.

Step 5 Choose **Process** in the Performance Object.

Step 6 Choose **List > Select Instances** in the Select Counters and click the following counters and associated instances:

```
% Processor Time / All Instances
ID Process / All Instance
Virtual Bytes / All Instances
Private Bytes / All Instances
```

Step 7 Set the interval to **2** and the units as **seconds** in the Sample Data Every.

From the Log Files tab, make sure that the log file type is **Text File - CSV**. Also note where these are located. The default is **C:\PerfLogs**. Select a log file limit of **20,000 Kb**.

Step 8 Click the **Schedule** tab.

Step 9 Choose **Start Log Manually** to start the log.

Step 10 Choose **When the 20,000 Kb Log File is Ful**l to stop the log.

Step 11 Choose Start a new log file and then click OK when the log closes.

Step 12 Start logging by selecting the created counter log.

Step 13 Choose **Action > Start**.

Note Over time, enabling these performance monitor logs generates a large number of files and utilizes a large amount of disk space. Therefore, you need to monitor this activity and, if it is generating large files, zip up the older logs and/or move them from the local drive.

Step 14 The event log data may or may not be necessary. However, you should proactively dump both the System and Application events and filter out only the events from the last 30 minutes before the crash. Investigate these events before sending them to the TAC. You might see something that warrants more attention.

Note Within a highly utilized system, using Event Viewer (a built-in Microsoft utility) to dump these events to a text file can easily starve all other processes from the CPU, including the Cisco CallManager KeepAlive process used to maintain phone registrations. Save the event log file in the .csv file format.

Step 15 In the following order, zip all files before e-mailing and copying them using WinZip version 8. In general, files are copied to a local machine for faster evaluation. Zipped files use less space and can be moved around faster than raw file formats.

a. Zip the USER.DMP and DRWTSN32.LOG together. Send and copy this Zip file immediately with a descriptive symptom definition and include the exact Cisco CallManager version, appropriate device loads, and Cisco IOS versions. If any special patches are in use, ensure this fact is made clear.

b. Zip and send the Cisco CallManager and SDL trace files together.

c. Zip and send the Performance Monitor logs together.

d. Zip and send the event log entries together.

Cisco CallManager Administration Page Does Not Display

Symptom

Administration web page does not display.

Possible Cause

The Cisco CallManager service stopped.

Recommended Action

Use the following procedure to verify that the Cisco CallManager service is active on a server that is local or remote.

1. From Cisco CallManager Administration, choose **Application > Cisco CallManager Serviceability**.

   The Cisco CallManager Serviceability window displays.
2. Choose **Tools > Service Activation**.
3. From the Servers column, choose a server.

   The server that you chose displays next to the Current Server title, and a box with configured services displays.

   Activation Status column displays either **Activated** or **Deactivated** in the Cisco CallManager line.

   If Activated, the Cisco CallManager is active on the chosen server and you need to contact TAC for further assistance.

   If Deactivated, continue with the following steps.
4. Check the **Cisco CallManager** check box.
5. Click the **Update** button.

   The Activation Status column displays **Activated** in the Cisco CallManager line.

   Cisco CallManager is now active for the chosen server.

Perform the following procedure if the Cisco CallManager has been in service and you want to check if it is currently active.

1. From Cisco CallManager Administration, choose **Application > Cisco CallManager Serviceability**.

   The Cisco CallManager Serviceability window displays.

2. Choose **Tools > Control Center**.

3. From the Servers column, choose the server.

   The server that you chose displays next to the Current Server title, and a box with configured services displays.

   The Activation Status column displays **Activated** in the Cisco CallManager line.

   Cisco CallManager is active for the chosen server. Contact TAC for further assistance.

   If Deactivated, continue with the following steps.

4. Check the **Cisco CallManager** check box.

5. Click the **Update** button.

   The Activation Status column displays **Activated** in the Cisco CallManager line.

   Cisco CallManager is now active for the chosen server.

   Repeat the preceding procedure to verify that the Cisco CallManager service is activated.

Errors Occur When Attempting to Access the Cisco CallManager Administration Page from the Browser

Symptom

One of the following error messages displays when you are trying to access the administration page from the same server where the Cisco CallManager resides.

- Internet Explorer—The page cannot be displayed.
- Netscape—Warning box displays: There was no response. The server could be down or is not responding.

Possible Cause

The IIS Admin service or the WWW publishing service does not start automatically as expected. One of these services stopping represents the most frequent reason for the pages not displaying locally.

Recommended Action

Use the following procedure to start the IIS.

Note If the IIS is stopped, the WWW publishing services may also be stopped. Start the WWW publishing services, which automatically starts the IIS .

1. From the Start menu, choose **Start > Programs > Administration Tools > Services**.

   A window displays listing IIS Administration.
2. Right-click **IIS Admin Service**.
3. Choose **Start**.
4. Click **Yes**.

   The IIS starts.

Start the other services using the following procedure.

1. From the Start menu, choose **Start > Programs > Administration Tools > Services**.
2. Right-click the service.
3. Choose **Start**.
4. Click **Yes**.

   The service starts.

Verification

Use the following procedure to verify that IIS is started.

1. From the Start menu, choose **Start > Programs > Administration Tools > Services**.
2. Right-click the service.
3. Verify the status, which should display Started.
4. If any service is stopped, perform the following procedures to start the service(s).

Use the following procedure to start the IIS.

Note If the IIS is stopped, WWW publishing services may also be stopped. Start the WWW publishing services, which automatically starts the IIS .

1. From the Start menu, choose **Start > Programs > Administration Tools > Services**.

   A window displays listing IIS Admin Service.
2. Right-click **IIS Admin Service**.
3. Choose **Start**.

4. Click **Yes**.
5. The IIS starts.

Start the other services using the following procedure.

1. From the Start menu, choose **Start > Programs > Administration Tools > Services**.
2. Right-click the service.
3. Choose **Start**.
4. Click **Yes**.
5. The service starts.

   Viruses can also cause the IIS service to stop and display strange messages when attempting to access the administration page. See the Virus Protection section for more information.

You Are Not Authorized to View This Page

Symptom

When accessing the administration page, the following error message displays.

Error Message `You Are Not Authorized to View This Page`

and other similar error messages that may occur include:

- You do not have permission to view this directory or page using the credentials you supplied.
- HTTP 401.3 Access denied by ACL on resource Internet Information Services.
- Server Application Error. The server has encountered an error while loading an application during the processing of your request. Please refer to the event log for more detailed information. Please contact the server administrator for assistance.
- Error: Access is Denied.

Possible Cause

The NTFS permissions have been modified on your C drive off the root directory to propagate into child directories on the Cisco CallManager server.

NTFS permissions have been changed from the default settings on the server and are no longer sufficient for IIS to run properly.

Recommended Action

Visit the Microsoft site for details on the issue: Q271071 “Minimum NTFS Permissions Required for IIS 5.0 to Work” at the following URL:

http://support.microsoft.com/default.aspx?ln=EN-GB&pr=kbinfo&

Verification

Use the following procedure to verify that IIS is started.

1. From the Start menu, choose **Start > Programs > Administration Tools > Services**.
2. Right-click the service.
3. Verify the status, which should display Started.
4. If any service is stopped, perform the following procedures to start the service(s).

Use the following procedure to start the IIS.

Note If the IIS is stopped, the WWW publishing services may also be stopped. Start the WWW publishing services, which starts the IIS automatically.

1. From the Start menu, choose **Start > Programs > Administration Tools > Services**.

   A window displays listing IIS Admin Service.
2. Right-click **IIS Admin Service**.
3. Choose **Start**.
4. Click **Yes**.

   The IIS starts.

Start the other services using the following procedure.

1. From the Start menu, choose **Start > Programs > Administration Tools > Services**.
2. Right-click the service.

3. Choose **Start**.
4. Click **Yes**.

   The service starts.

Errors Occur When Attempting to Access the Cisco CallManager Administration Page from a Browser on a Remote Server

If you can access the Administration Web page locally on the Cisco CallManager server, but not when you browse from a remote machine, verify whether one of the following situations applies to you. They appear in order, from the most frequent reason to the least frequent reason.

Problems Displaying or Adding Users With Cisco CallManager

Symptom

You are not able to add a user or conduct a search on the Cisco CallManager Administration user pages.

Possible Cause

You may encounter the following problems if you are working with Cisco CallManager 3.x installed on a server that has a special character (such as an underscore) in its hostname, or MS Internet Explorer 5.5 with SP2 and a Q313675 patch or above.

- When you conduct a basic search and hit submit, the page returns the same page.
- When you try to insert a new user, the following error message appears.

```
The following error occurred while trying to execute the
command.
Sorry, your session object has timed out.
Click here to Begin a New Search
```

Recommended Action

You may not be able to add a user or do a search on the Cisco CallManager Admin user pages, if your Cisco CallManager hostname contains any special characters such as underscore or period (for example, Call_Manager). Domain Name System (DNS)-supported characters include all letters (A-Z, a-z), numbers (0-9), and hyphen (-), and any special characters are not allowed. If the Q313675 patch is installed on your browser, make sure that the URL does not contain any non-DNS supported characters.

For more information about the Q313675 patch, refer to MS01-058: File Vulnerability Patch for Internet Explorer 5.5 and Internet Explorer 6.

To resolve this problem, you have the following options:

- Access the Cisco CallManager Admin pages using the IP address of the server.
- Do not use non-DNS characters in the Server Name.
- Use the localhost or IP address in the URL.

SQLSvc User Cannot Log In

Symptom

The SQLSvc user cannot log in, and dependent services do not start.

Possible Cause

The SQLSvc user must log in to the local system before the Cisco CallManager, SQLServerAgent, MSSQLServer, and COM+ Event System services can start and execute their specific functions. If the SQLSvc password is not configured correctly, both locally and within the cluster, the SQLSvc user cannot log in and these dependent services do not start. Cisco CallManager and its basic functionality can be affected.

Note The SQLSvc password should be the same across the entire cluster.

This problem affects the following:

- Cisco CallManager
- Microsoft SQL server for Cisco Call Manager
- Cisco Music on Hold (MOH) Audio Translator
- Cisco Trivial File Transfer Protocol (TFTP)

Recommended Action

Use the following procedure to recover an SQLSvc account password.

1. Choose **Start** > **Programs** > **Administrative Tools** > **Computer Management**.
2. Click **+** (the plus sign) beside Local Users and Groups in the left column.
3. Click **Users**.
4. Right-click **SQLSvc** in the right column and choose **Set Password**.
5. Enter the new password and confirm the password.
6. Click **OK** to confirm and close the Change Password dialog box.
7. Click **+** (the plus sign) beside Services and Applications in the left column.
8. Click **Services**.
9. In the right column click to highlight **MSSQLServer 2000**.
10. Right-click **MSSQLServer 2000** and choose **Properties**.
11. Click the **Log On** tab.
12. Change the password and confirm that the password matches the SQLSvc user password set in step 5.
13. Click **OK** to return to the Services List.
14. Click to highlight **SQLServerAgent**.
15. Right-click **SQLServerAgent** and choose **Properties**.
16. Click the **Log On** tab.
17. Change the password to match the SQLSvc user password set in step 5.
18. Click **OK** to return to the Services List.
19. Close the Computer Management window.

20. Choose **Start** > **Programs** > **Administrative Tools** > **Component Services**.
21. Click + (the plus sign) beside Component Services.
22. Click + (the plus sign) beside Computers.
23. Click + (the plus sign) beside My Computer.
24. Click + (the plus sign) beside COM+ Applications.
25. Right-click **DBL** and choose **Properties**.
26. Click the **Identity** tab.
27. Change the password and confirm that the password matches the SQLSvc user password set in step 5.
28. Click **OK** to go back to the Component Manager.
29. Right-click **DBL** and click **Shut Down**.
30. Right-click **DBL** and click **Start**.
31. Close the Component Manager window.

Name to Address Resolution Failing

Symptom

One of the following error messages displays when you try to access the following URL:

http://your-cm-server-name/ccmadmin

Internet Explorer: `This page cannot be displayed`

Netscape: `Not Found. The requested URL /ccmadmin was not found on this server.`

If you try to access the same URL using the Cisco CallManager IP address (http://10.48.23.2/ccmadmin) instead of the name, the page displays.

Possible Cause

The name that you entered as "your-cm-server-name" is mapping to the wrong IP address in DNS or hosts file.

Recommended Action

1. If you have configured the use of DNS, check in the DNS to see whether the entry for the *your-cm-server-name* has the correct IP address of the Cisco CallManager server. If it is not correct, change it.
2. If you are not using DNS, your local machine will check in the "hosts" file to see whether there is an entry for the *your-cm-server-name* and an IP address associated to it. Open the file and add the Cisco CallManager server name and the IP address.

   You can find the "hosts" file at **C:\WINNT\system32\drivers\etc\hosts** on your Windows station.

Unable to Change the Server Name for Cisco CallManager

Symptom

You attempt to change the name of the Cisco CallManager server and the service fails. Other services , such as CTI Manager, Extended Functions, and Voice Media Streaming, also fail.

Possible Cause

Cisco does not support changing the name of a Cisco CallManager server.

Recommended Action

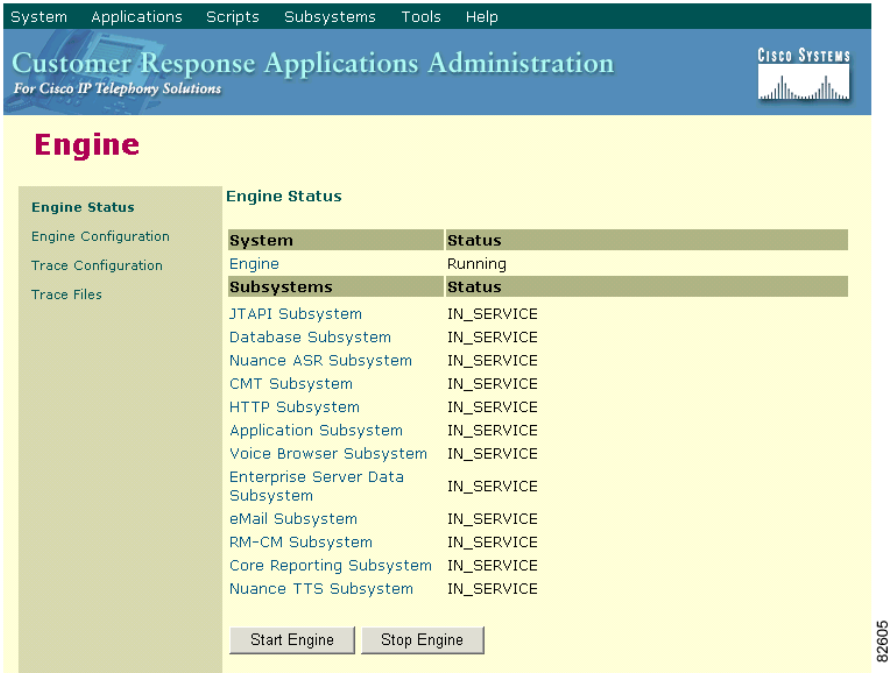
Use the following procedure to change the IP address instead of changing the name of a Cisco CallManager server.

Note You must change the IP address in all applications.

1. From Customer Response Applications Administration, choose **System > Engine** to access the Engine web page.

Note These steps are required if the Customer has installed Extended Services (required in version 3.2 and below for Extension Mobility and required in all versions for IP-Auto Attendant or TAPS, which are free applications) or a co-resident installation of CRS on the machine whose IP address is being changed.

Figure 4-1 Engine Window—Engine Status Area



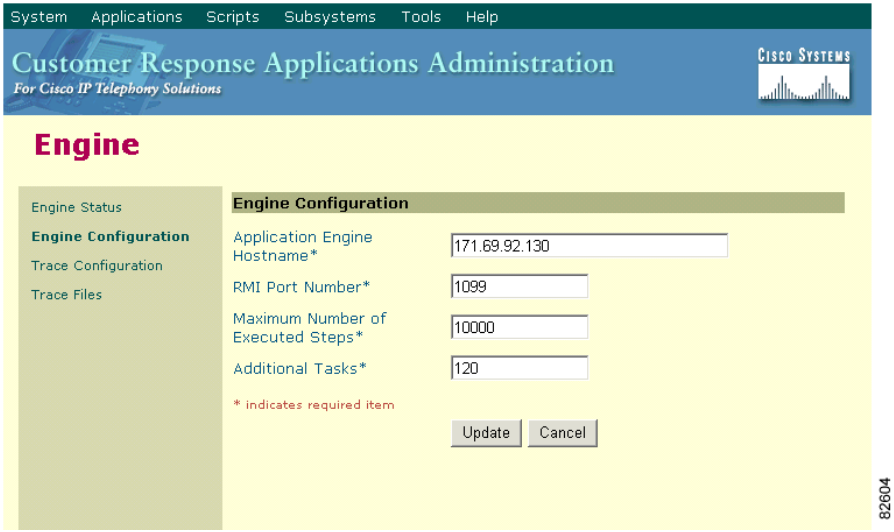
The Engine Status area displays information about the CRS system and its subsystems.

2. Click the **Stop Engine** button to stop the CRS Engine.

Note You can also control the CRS Engine from the Windows Service window, which you display by choosing **Start > Programs > Administrative Tools > Services**.

3. Click the **Engine Configuration** hyperlink on the navigation bar of the Engine web page to access the Engine Configuration area, which displays information you specified during user profile creation.

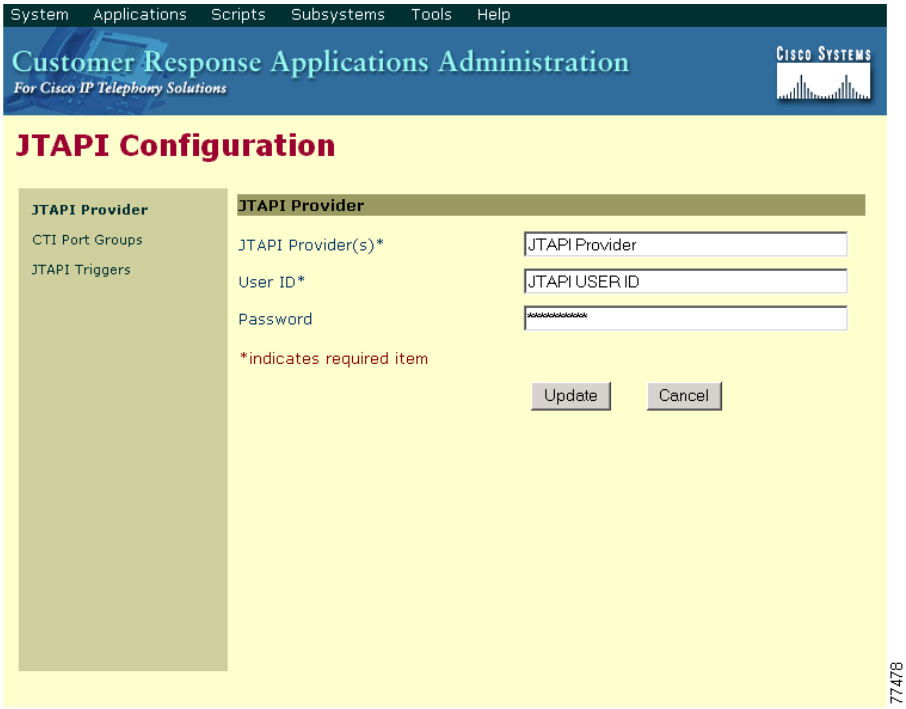
Figure 4-2 Engine Window—Engine Configuration Area



4. In the Application Engine Hostname field, enter the new IP address of the server.
5. From the Customer Response Applications Administration, choose **Subsystems > JTAPI**.

   The JTAPI Configuration web page displays.

Figure 4-3 JTAPI Configuration Window



6. In the JTAPI Provider(s) field, enter the new IP address of the Cisco Media Convergence server (Cisco MCS) running Cisco CallManager CTI Manager.
7. From Customer Response Applications Administration, choose **System > Configuration and Repository**.

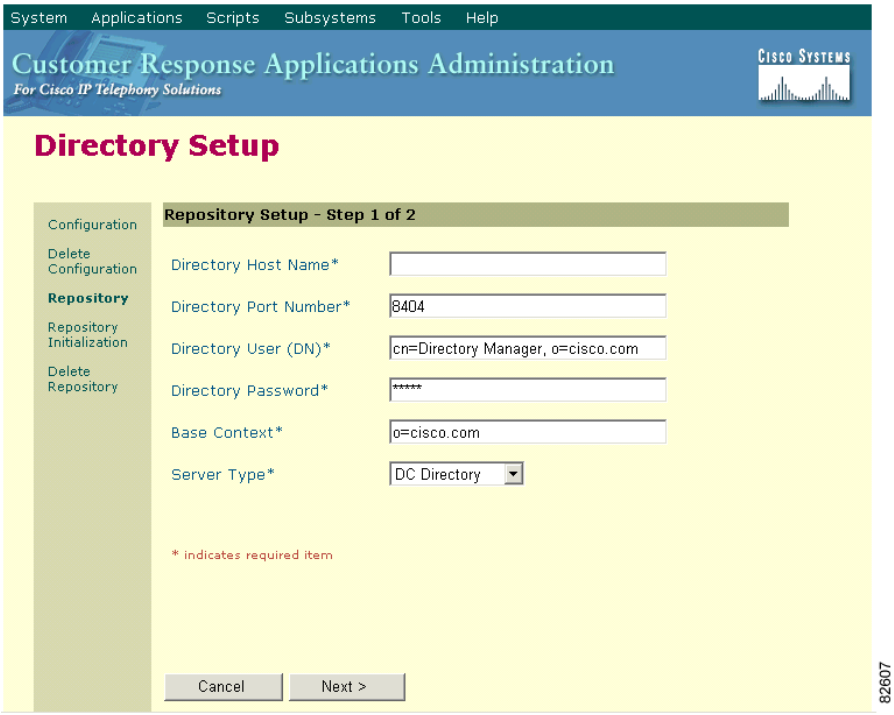
   The Directory Setup Window displays.

Figure 4-4 Directory Setup Window—Configuration Setup Area

8. In the **Directory Host Name** field, enter the new IP address.
9. Click the **Repository** hyperlink on the navigation bar of the Directory Setup window.

   The Repository Setup area displays.

Figure 4-5 Directory Setup Window—Repository Setup Area



10. In the **Directory Host Name** field, enter the new IP address.
11. Stop the DC Directory Service on the server by choosing **Control Panel > Administrative Tools > Services**.
12. Select **Start > Programs > DC Directory Administrator Directory Manager**.
13. Enter the ***directory manager password*** that you entered during the installation.
14. Choose **Directory > cisco.com > CCN > systemProfile**.
15. Double-click **Hoteling Profile**.
16. Click **Modify** and enter the new IP address.
17. In the Cisco CallManager Administration, choose **System > Server** and enter the new IP address.

18. In the Cisco CallManager Administration, choose **System > Enterprise Parameters** and enter the new IP addresses for the URL Directories. There are multiple URL entries that may need to be changed. Help, Authentication, Directories, Information, and Services all have URLs under Enterprise Parameters.
19. In the Cisco CallManager Administration, choose **Features > Phone Services** and enter the new IP address in all URLs. This applies to any URLs that point to the server that is being changed. Services can (and in many cases should) point to other servers/www sites.
20. Change the Server IP address to the new IP address in Network Properties.
21. Change LMHOST and HOSTS files on all servers in a cluster to the new IP address.
22. Change the DHCP Option 150 to the new IP address.
23. Open the SQL Enterprise Manager and change the IP addresses in the URLs in the PlugIn table by choosing **Start > Programs Microsoft SQL Server 2000 > Enterprise Manage r**.
24. Choose the ***tree server name*** **> Databases >** ***latest CCM03xx database***.
25. Choose **Tables > PlugIn**.
26. Right-click **PlugIn** to open the table and choose **Return All Rows**.

Note Modifications occur immediately. You cannot cancel changes.

27. Open the stiBackup configuration by choosing **Start > Programs Administrative Tools > Services Console > stiBack for Cisco IP Telephony Applications** and enter the new IP address in all the appropriate tabs.
28. In **C:\TAPS\TAPSCCM.txt**, enter the new IP address

Default Web Site Under IIS Has Improper Setting

Symptom

One of the following error messages displays when you try to access the following URL:

http://your-cm-server-name/ccmadmin

- Internet Explorer: This page cannot be displayed
- Netscape: Not Found. The requested URL /ccmadmin was not found on this server.

If you try to access the same page using the Cisco CallManager IP address (http://10.48.23.2/ccmadmin) instead of the name, the page displays.

Possible Cause

An incorrect setting in the **Default Web Site** tab for the IIS has been set on the server.

Recommended Action

1. Verify in the Internet Service Manager on the Cisco CallManager machine the **Default Web Site**. In the **Web Site** tab, choose **All Unassigned** and not the IP address of the machine.

   You can verify that setting by choosing **Start** > **Programs** > **Administrative tools/Internet Service Manager**. Expand the icon that shows your server name.

2. Right-click **Default Web Site**. You have option properties that you must choose. Look for the **Web Site** tab and verify the **All Unassigned** setting.

Note If you need to keep the specific IP address setting for any reason, you cannot use the name instead of IP address from a remote web browser.

Port 80 Is Blocked in One or More Routers Between Your Local Browser and the Cisco CallManager Server

Symptom

One of the following error messages displays when a firewall blocks the port that is used by the web server or the http traffic:

- Internet Explorer: `This page cannot be displayed`
- Netscape: `There was no response. The server could be down or is not responding`

Possible Cause

For security reasons, the system blocked the http access from your local network to the server network.

Recommended Action

1. Verify whether other types of traffic to the Cisco CallManager server, such as ping or Telnet, are allowed. If any are successful, it will show that http access to the Cisco CallManager Web server has been blocked from your remote network.
2. Check the security policies with your network administrator.
3. Try again from the same network where the Server is located.

You Attempt to Access a Machine Where Access Is Explicitly Denied

Symptom

One of the following error messages displays:

- Internet Explorer: `This page cannot be displayed`
- Netscape: `Not Found. The requested URL / ccmadmin was not found on this server.`
- From both browsers without the **show friendly http error messages** advance setting configured: `Access to this server is forbidden.`

Possible Cause

This represents a security policy that is applied by the network administrator.

Recommended Action

1. Check the security policies with your network administrator. Try again from a different machine.
2. If you are the network administrator, check the **Directory Security** tab of the **Default Web Site** in the Internet Service Manager on the Cisco CallManager server.
3. You can verify the setting by choosing **Start > Programs > Administrative tools/Internet Service Manager**.
4. Expand the icon that shows your server name.
5. Right-click **Default Web Site**. You have the option properties from which you must choose.
6. Look for the **Directory Security** tab and verify the setting.

Improper Network Setting Exists in the Remote Machine Where You Are Browsing

Symptom

There is no connectivity, or there is no connectivity to other devices in the same network as the Cisco CallManager.

When you attempt the same action from other remote machines, the Cisco CallManager Administration Page displays.

Possible Cause

Improper network configuration settings on a station or on the default Gateway can cause a web page not to display because partial or no connectivity to that network exists.

Recommended Action

1. Try pinging the IP address of the Cisco CallManager server and other devices to confirm that you cannot connect.
2. If the connectivity to any other device out of your local network is failing, check the network setting on your station, as well as the cable and connector integrity.
3. If the connectivity to any other device out of your local network is failing, check the network setting on your station, as well as the cable and connector integrity. Refer to the appropriate hardware documentation for detailed information.

   If you are using TCP-IP over a LAN to connect, continue with the following steps to verify the network settings on the remote station.
4. Choose **Start > Setting > Network and Dial-up connections**.
5. Choose **Local Area Connection**, then **Properties**.

   The list of communication protocols displays as checked.
6. Choose **Internet Protocol (TCP-IP)** and click **Properties** again.
7. Depending on your network, choose either **Obtain an ip address automatically** or **set manually your address, mask and default Gateway**.

The possibility exists that a browser-specific setting could be improperly configured.

8. Choose the Internet Explorer browser **Tools > Internet Options**.
9. Choose the **Connections** tab and then verify the LAN settings or the dial-up settings.

   By default, the LAN settings and the dial-up settings are not configured. The generic network setting from Windows is used.
10. If the connectivity is failing only to the Cisco CallManager network, a routing issue probably exists in the network. Contact the network administrator to verify the routing that is configured in your default gateway.

Note If you cannot browse from the remote server after following this procedure, contact TAC to have the issue investigated in more detail.

Refer to the following URL for more information on configuration settings:

http://www.cisco.com/en/US/tech/tk331/tk336/tk542/tsd_technology_support_sub-protocol_home.html

Replication Fails Between the Publisher and the Subscriber

Replicating the SQL database is a core function of Cisco CallManager clusters. The server with the master copy of the database is called the publisher, while the servers replicating the database are called subscribers.

Cannot Update Data Because the Publisher Is Not Available

Symptom

The following error message displays:

Error Message `Cannot update data because the publisher is not available. Please try again later. (58)`

Possible Cause

The subscriber build failed.

Recommended Action

1. Ensure that the NetBIOS name resolution is working between all servers.
2. Ensure (by editing) that the hosts and LMHOSTS are filled in on the publisher and subscriber servers, so each one can resolve the other's host name and NetBIOS name.

   Hosts is used for DNS resolution. LMHOSTS uses NetBIOS for name resolution. Also, SQL uses NetBIOS for name resolution.

   If the Cisco CallManager fails to update, the database layer on the subscriber cannot find the publisher.
3. Check the SQL "distribution agent" on the publisher for history and errors.
4. Choose **Start > Programs > Administrative Tools > Local Security Policy**.
5. Choose **Audit Policy**.

6. Enable **Failure auditing for all events.**

   For SQL, enable **Authentication**.

Note Users get replicated in the DC Directory, not in SQL.

7. From the web, upgrade the Cisco CallManager for the software version on your publisher.

   The software will download the SQL database to the subscriber(s).

Subscriber Stops Replicating Data From the Publisher

Symptom

Changes made on the publisher are not reflected on phones that are registered with the subscriber.

Possible Cause

Replication fails between the publisher and subscriber.

Recommended Action

Complete the following steps to reestablish the relationship between the two systems. First, the subscriber subscription will need to be recreated on the publisher. Then, delete the subscription and re-create it on the subscriber system.

Recreating the Subscription on the Publisher

1. Choose **Programs > Microsoft SQL Server 2000 > Enterprise Manage**r from the publisher to start the SQL Enterprise Manager.
2. The subscription can be re-created from the publisher. Under Microsoft SQL Server, select **New SQL Server Registration...**

   The Register SQL Server Wizard displays. Make sure the **From now on I want to perform the task without using a wizard** checkbox is not checked.
3. Click **Next**.

The other SQL servers that reside on the Cisco CallManagers should display in the Additional Servers box.

4. Choose all servers and **Add** them to the Added servers box.
5. Click **Next**.

   Click **The SQL Server login information that was assigned to me by the system administrator**.
6. Click **Next**.
7. On the next screen, use the "sa" account and password for the subscriber system.

Note This is the sa account and password from the SUBSCRIBER system. The password was selected when the subscriber system was installed.

8. In the Select SQL Server Group window, choose the option to **Add the SQL server(s) to the existing SQL Server group**.
9. Click **Finish**.

   After selecting finish, the wizard will display status of the addition of the added server(s).

   The display should read "Registered successfully."
10. Click **Close**.

    The listing of the two servers in the display means they are recognized by the publisher, so data can be shared with them.

Deleting the Subscription on the Publisher

Use the following procedure to delete the subscription on the publisher.

1. Choose **Microsoft SQL Servers > SQL Server Group > Machine_name > Databases > CCM0301 > Publications** from the Enterprise Manager to locate the Publication for the CCM0301 database.
2. Choose the Cisco CallManager subscription that is failing and delete the entry.

Note Select the area on the right. Do not delete the book icon on the left.

A warning displays indicating the subscription has been removed at the publisher, but not the subscriber and if you want to connect to the subscriber and delete the subscription.

3. Click **Yes**.

   The next message indicates that the subscription has been deleted but the data has not.

4. Click **OK**.

Re-creating the Subscription on the Subscriber

Next, the subscription must be added back into the subscriber SQL server. Use the following procedure to re-create the subscription on the subscriber.

1. Select the SQL server name of the subscriber that you just deleted from the publisher.
2. Right-click to get the menu.
3. Choose **New > Pull Subscription** from the menu.

Note Always choose the latest version of the database, not the earlier version

The Pull Subscription Wizard displays.

4. Click **Next**.
5. On the Choose Publication screen expand the publisher (which should be listed) and select the database.
6. Click **Next**.
7. On the Specify Synchronization Agent Login screen, Choose **Using SQL Server Authentication of this account**.

   The login name will be sa and the password will be the same password for the publisher **sa** account.

8. On the Specify Immediate-Updating Subscription(s) popup, Click **Yes, make this an immediate-updating subscription(s)**.
9. Click **Next**.
10. On the Initialize Subscription screen, Click **Yes, initialize the schema and data at the Subscriber**.
11. Click **Next**.
12. On the Set Distribution Agent Schedule popup, Choose **Continuously**.
13. Click **Next**.
14. The next step will verify that both the SQL server agent and the Microsoft DTC services are running.
15. Click **Next**.
16. Click **Finish** in the Completing the Pull Subscription Wizard screen.

    The Wizard will set up the subscription and display a success when completed.

    A display indicating success should appear when the process is completed.
17. Now that the subscription has been created, the snapshot agent must be run to get the data out to the subscriber for synchronization.
18. Choose the publisher SQL server and choose **Replication Monitor > Publishers > Machine_name >CCM0301 subscription**.
19. Choose the **Snapshot** entry and choose **Start**.

    The snapshot agent will run at this point. It will take about 3-5 minutes to complete the task. Once the snapshot agent completes, the pull agent will start to apply the snapshot to the subscriber. This will take another 3-5 minutes.
20. Once the pull subscription has completed, on the publisher, select the subscriber SQL server and open the pull subscriptions for the CCM0301 database.

    The subscription should be in a running state and waiting for updates.

Note If the last action still reads "Waiting for snapshot agent to become available," press F5 to refresh the screen.

At this time, the subscriber is now resynchronized with the publisher and updates are getting recorded in the local subscriber SQL database.

Verification

Use the following procedure to verify that the SQL Subscription is working.

1. To test the propogation of data, create a device on the publishing server that is easily recognizable.

Note The more recognizable the device is, the easier it will be to find.

2. Click **Insert**.

   The device does not need to be functional.

3. Click **Update** and **Close**.
4. Go into the SQL Enterprise Manager, expand the SQL subscriber in question and look in the database table to see if the new device is present.

Slow Server Response

This section addresses a problem related to a slow response from the server: Mismatched Duplex Port Settings.

Mismatched Duplex Port Settings

Symptom

Slow response from the server occurs.

Possible Cause

Slow response could result if the duplex of the switch does not match the duplex port setting on the Cisco CallManager server.

Recommended Action

1. For optimal performance, set both switch and server to **100/Full**.

   Cisco does not recommend using the Auto setting on either the switch or the server.

2. You must restart the Cisco CallManager server for this change to take effect.

JTAPI Subsystem Startup Problems

The JTAPI (Java Telephony API) subsystem is a very important component of the Cisco Customer Response Solutions (CRS) platform. JTAPI is the component that communicates with the Cisco CallManager, and is responsible for telephony call control. The CRS platform hosts telephony applications, such as Cisco AutoAttendant, Cisco IP ICD, and Cisco IP-IVR. This section is not specific to any of these applications; the JTAPI subsystem is an underlying component that is used by all of them.

Before starting the troubleshooting process, ensure that the software versions that you are using are compatible. To verify compatibility, read the Cisco CallManager Release Notes for the version of Cisco CallManager that you are using.

To check the version of CRS, log in to the AppAdmin page by typing http://servername/appadmin, where *servername* is the name of the server on which CRS is installed. The current version is located in the lower-right corner of the main menu.

JTAPI Subsystem is OUT_OF_SERVICE

Symptom

The JTAPI subsystem does not start.

Possible Cause

One of the following exceptions displays in the trace file:

- MIVR-SS_TEL-4-ModuleRunTimeFailure
- MIVR-SS_TEL-1-ModuleRunTimeFailure

MIVR-SS_TEL-4-ModuleRunTimeFailure

Search for the **`MIVR-SS_TEL-1-ModuleRunTimeFailure`** string in the trace file. At the end of the line, an exception reason is given.

The following are the most common errors:

- Unable to create provider—bad login or password
- Unable to create provider -- Connection refused
- Unable to create provider -- login=
- Unable to create provider -- hostname
- Unable to create provider -- Operation timed out
- Unable to create provider -- null

Unable to create provider—bad login or password

Possible Cause

The user name or password entered in the JTAPI configuration is incorrect.

Full Text of Error Message

```
%MIVR-SS_TEL-4-ModuleRunTimeFailure:Real-time
failure in JTAPI subsystem: Module=JTAPI
Subsystem,Failure Cause=7,Failure
Module=JTAPI_PROVIDER_INIT,
Exception=com.cisco.jtapi.PlatformExceptionImpl:
Unable to create provider -- bad login or password.
%MIVR-SS_TEL-7-
```

```
EXCEPTION:com.cisco.jtapi.PlatformExceptionImpl:
Unable to create provider -- bad login or password.
```

Recommended Action

Verify that the user name and password are correct. Try logging into the CCMuser page (http://servername/ccmuser) on the Cisco CallManager to ensure that the Cisco CallManager is able to authenticate correctly.

Unable to create provider -- Connection refused

Possible Cause

The JTAPI connection to the Cisco CallManager is refused by the Cisco CallManager.

Full Text of Error Message

```
%MIVR-SS_TEL-4-ModuleRunTimeFailure:Real-time
failure in JTAPI subsystem: Module=JTAPI Subsystem,
Failure Cause=7,Failure Module=JTAPI_PROVIDER_INIT,
Exception=com.cisco.jtapi.PlatformExceptionImpl: Unable
to create provider -- Connection refused
%MIVR-SS_TEL-7-EXCEPTION:com.cisco.jtapi.PlatformExceptionImpl:
Unable to create provider -- Connection refused
```

Recommended Action

Verify that the CTI Manager service is running in the Cisco CallManager Control Center.

Unable to create provider -- login=

Possible Cause

Nothing has been configured in the JTAPI configuration page.

Full Text of Error Message

```
%MIVR-SS_TEL-4-ModuleRunTimeFailure:Real-time
failure in JTAPI subsystem: Module=JTAPI Subsystem,
Failure Cause=7,Failure Module=JTAPI_PROVIDER_INIT,
Exception=com.cisco.jtapi.PlatformExceptionImpl:
Unable to create provider -- login=
%MIVR-SS_TEL-7-EXCEPTION:com.cisco.jtapi.PlatformExceptionImpl:
Unable to create provider -- login=
```

Recommended Action

Configure a JTAPI provider in the JTAPI configuration page on the CRS server.

Unable to create provider -- hostname

Possible Cause

The CRS engine is not able to resolve the host name of the Cisco CallManager.

Full Text of Error Message

```
%M%MIVR-SS_TEL-4-ModuleRunTimeFailure:Real-time
failure in JTAPI subsystem: Module=JTAPI Subsystem,
Failure Cause=7,Failure Module=JTAPI_PROVIDER_INIT,
Exception=com.cisco.jtapi.PlatformExceptionImpl:
Unable to create provider -- dgrant-mcs7835.cisco.com
%MIVR-SS_TEL-7-EXCEPTION:com.cisco.jtapi.PlatformExceptionImpl:
Unable to create provider -- dgrant-mcs7835.cisco.com
```

Recommended Action

Verify that DNS resolution is working correctly from the CRS engine. Try using an IP address instead of the DNS name.

Unable to create provider -- Operation timed out

Possible Cause

The CRS engine does not have IP connectivity with the Cisco CallManager.

Full Text of Error Message

```
101: Mar 24 11:37:42.153 PST
%MIVR-SS_TEL-4-ModuleRunTimeFailure:Real-time
failure in JTAPI subsystem: Module=JTAPI Subsystem,
Failure Cause=7,Failure Module=JTAPI_PROVIDER_INIT,
Exception=com.cisco.jtapi.PlatformExceptionImpl:
Unable to create provider -- Operation timed out
102: Mar 24 11:37:42.168 PST %MIVR-SS_TEL-7-EXCEPTION:
com.cisco.jtapi.PlatformExceptionImpl:
Unable to create provider -- Operation timed out
```

Recommended Action

Check the IP address that is configured for the JTAPI provider on the CRS server. Check the default gateway configuration on the CRS server and the Cisco CallManager. Make sure there are no IP routing problems. Test connectivity by pinging the Cisco CallManager from the CRS server.

Unable to create provider -- null

Possible Cause

There is no JTAPI provider IP address or host name configured, or when the JTAPI client is not using the correct version.

Full Text of Error Message

```
%MIVR-SS_TEL-4-ModuleRunTimeFailure:Real-time
failure in JTAPI subsystem: Module=JTAPI Subsystem,
Failure Cause=7,Failure Module=JTAPI_PROVIDER_INIT,
Exception=com.cisco.jtapi.PlatformExceptionImpl:
Unable to create provider -- null
```

Recommended Action

Verify that a host name or IP address is configured in the JTAPI configuration. If the JTAPI version is incorrect, download the JTAPI client from the Cisco CallManager Plugins page and install it on the CRS server.

MIVR-SS_TEL-1-ModuleRunTimeFailure

Symptom

This exception usually occurs when the JTAPI subsystem is unable to initialize any ports.

Possible Cause

The CRS server can communicate with the Cisco CallManager, but is unable to initialize any CTI ports or CTI route points through JTAPI. This error occurs if the CTI ports and CTI route points are not associated with the JTAPI user.

Full Text of Error Message

```
255: Mar 23 10:05:35.271 PST %MIVR-SS_TEL-1-ModuleRunTimeFailure:
Real-time failure in JTAPI subsystem: Module=JTAPI Subsystem,
Failure Cause=7,Failure Module=JTAPI_SS,Exception=null
```

Recommended Action

Check the JTAPI user on the Cisco CallManager, and verify that CTI ports and CTI route points that are configured on the CRS server are associated with the user.

JTAPI Subsystem is in PARTIAL_SERVICE

Symptom

The following exception displays in the trace file:

```
MIVR-SS_TEL-3-UNABLE_REGISTER_CTIPORT
```

Possible Cause

The JTAPI subsystem is unable to initialize one or more CTI ports or route points.

Full Text of Error Message

```
1683: Mar 24 11:27:51.716 PST
%MIVR-SS_TEL-3-UNABLE_REGISTER_CTIPORT:
Unable to register CTI Port: CTI Port=4503,
Exception=com.cisco.jtapi.InvalidArgumentExceptionImpl:
Address 4503 is not in provider's domain.
1684: Mar 24 11:27:51.716 PST %MIVR-SS_TEL-7-EXCEPTION:
com.cisco.jtapi.InvalidArgumentExceptionImpl:
Address 4503 is not in provider's domain.
```

Recommended Action

The error message in the trace will tell you which CTI port or route point was unable to be initialized. Verify that this device exists in the Cisco CallManager configuration, and is also associated with the JTAPI user on the Cisco CallManager.

Security

This section covers the following security issues and provides information on where to find detailed documentation regarding the security process:

Changing IIS Parameters for Security

Symptom

You lose settings for locking down the IIS servers to protect the Cisco CallManager from hackers, attacks, or threats.

Possible Cause

Whenever you upgrade or reinstall the Cisco CallManager, all the IIS settings revert to the Cisco CallManager defaults.

Recommended Action

Test all your settings on a non-production Cisco CallManager before changing the settings on your production server.

Make note of the settings because they will change every time that you perform an upgrade or reinstall, and you will have to reset them.

Note Ensure that you do not change any settings within the Cisco web directory, or you run the risk of losing a Cisco CallManager service due to a missing or moved file.

Near-Term Security Solutions

Refer to the following documents to ensure that you have quality of service (QoS) configured properly throughout your network to help ensure voice quality is affected as little as possible during the remainder of cleanup operations:

- *Cisco IP Telephony QoS Design Guide*
- *Cisco IP Telephony Network Design Guide*
- *IP Telephony Solutions Guide*

The following URL provides the guides:

http://www.cisco.com/univercd/cc/td/doc/product/voice/ip_tele/index.htm

Refer to the *Cisco IP Telephony Network Design Guide* to establish separate Voice/Data VLANs.

Note This could provide a long-term solution depending on the size and complexity of the network involved.

Long-Term Security Solutions

Refer to documentation located at and below the following URL:

http://www.cisco.com/univercd/cc/td/doc/product/voice/ip_tele/index.htm

Related Information

The following URL provides *Cisco CallManager Security Patch Process*:

http://www.cisco.com/warp/public/cc/pd/nemnsw/callmn/prodlit/cmspp_qa.pdf

Cisco highly recommends that you do not install any patches from Microsoft. Download the wrapped versions from CCO.

You can sign up for Microsoft security patch alerts at the following URL:

http://www.microsoft.com/technet/treeview/default.asp?url=/technet/security/bulletin/notify.asp

The alerts include an associated rating, which gives you an estimated time of a HotFix posting to CCO.

Refer to the following URL for security considerations for an IP telephony network:

http://www.cisco.com/univercd/cc/td/doc/product/voice/ip_tele/index.htm

Virus Protection

Refer to the following URL for procedures for stopping an active security attack or preventing an imminent security risk:

http://www.cisco.com/en/US/partner/products/sw/voicesw/ps556/prod_security_advisories_list.html

To verify that the server has the latest patches, refer to the following documents:

- *Installing Cisco CallManager*
- *Upgrading Cisco CallManager*
- *Using Cisco CallManager Upgrade Assistant Utility*