



Logs and Traces

In this chapter you will find information to help you gather logs and traces when troubleshooting Cisco Unity. See the following sections:

- [Dr. Watson Logs, page 2-2](#)—This section includes instructions for obtaining a Dr. Watson trace.
- [Event Log Traces, page 2-2](#)—This section includes instructions for obtaining an Event log trace.
- [MIU Diagnostics, page 2-2](#)—This section includes information on setting up and collecting MIU diagnostic traces.
- [TSP Traces, page 2-4](#)—This section includes instructions for obtaining Dialogic and Cisco Unity-CM TSP traces.

Cisco Unity and Third-Party Logs and Traces

For problems in the MIU or TSP, Cisco TAC may ask for logs and traces before the problem can be diagnosed and fixed. MIU diagnostic logs, along with the Event log and/or Dr. Watson logs, if available, are usually sufficient for the initial phase of diagnosing a problem.



Caution

Diagnostic traces that are set before a Cisco Unity software upgrade are not preserved and must be reset after the upgrade.

See the following sections for details about third-party logs and traces:

- [Dr. Watson Logs, page 2-2](#)
- [Event Log Traces, page 2-2](#)

Most Cisco Unity components such as the MIU, Arbiter, Notifier, Conversations, and Cisco Unity Administrator (also known as the “SA” or “System Administrator”) can write diagnostic information to a log file. Diagnostic output of the problem occurring is critical to determining what caused the problem. If the problem seldom occurs, such as only once a day, it can be difficult to find the actual occurrence of the problem in the diagnostic log. See the following sections for details about Cisco Unity diagnostic traces:

- [MIU Diagnostics, page 2-2](#)
- [TSP Traces, page 2-4](#)

Dr. Watson Logs

Dr. Watson is a program invoked by Windows 2000 when a serious problem occurs that is not handled by Cisco Unity. When Dr. Watson is invoked, a dialog box appears containing an error message, for example, “Dr. Watson encountering an error in the AvCsMgr.exe process.” Dr. Watson errors may occur in other processes such as Tapisrv.exe, or Dlgc_srv.exe.

To obtain a Dr. Watson log

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- Step 1 When a Dr. Watson error occurs, make a copy of the file **Winnt\Drwtsn32.log**.
 - Step 2 Before you attempt to reproduce the problem, from a command prompt, enter **drwtsn32** and press **Enter**.
 - Step 3 In the **Number of Instructions** field, enter **50**.
 - Step 4 In the **Number of Errors to Save** field, enter the number of errors you want to record. The default is 10.
 - Step 5 Under Options, confirm that the **Dump All Thread Contexts**, **Append to Existing Log File**, **Visual Notification**, and **Create Crash Dump File** check boxes are checked.
 - Step 6 Click **OK** to close the dialog box.
 - Step 7 Reproduce the problem.
 - Step 8 Make a copy of the file **Winnt\Drwtsn32.log**.
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Event Log Traces

The Event log is used by Windows applications to report errors and warnings. The MIU reports serious failures to the Event log, for example, “Component MIU: thread <XXX> had a failure on port <YYY> in AvWav.”

To obtain an Event log trace

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- Step 1 On the Windows Start menu, click **Programs > Administrative Tools > Event Viewer**.
 - Step 2 In the Tree pane, click **Application Log**.
 - Step 3 Look for failure messages in the Application log. These can include errors from the MIU or AvWav, as well as errors from other Cisco Unity components.
 - Step 4 If failure messages are present in the Application log, in the Tree pane, click **Application Log**, then on the Action menu click **Save Log File As**.
 - Step 5 In the **Save as Type** field, click **CSV**, then click **Save**. Do not save the raw Event log data in a *.evt file.
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MIU Diagnostics

Enable the MIU diagnostics when you are obtaining traces for an MIU problem. For example, if there are AvWav errors in the Event log, enable the AvWav diagnostics. However, keep in mind that running additional diagnostics can affect system performance and hard drive space.

You can use micro traces to set individual levels for selected MUI traces, or you can use macro traces to select preset combinations of traces.

To obtain micro trace MIU diagnostics

- Step 1** On the Windows Start menu, click **Programs > Unity > Unity Diagnostic Tool**.
 - Step 2** On the Cisco Unity Diagnostic Viewer screen, click the **Configure Micro Traces** icon. The Configure Micro Traces wizard appears.
 - Step 3** On the Welcome page, click **Next**.
 - Step 4** On the Configure Micro Traces page, check the boxes for selected traces in components beginning with **Miu**.
 - Step 5** Click **Next**.
 - Step 6** On the Completing page, click **Finish**.
 - Step 7** On the Cisco Unity Diagnostic Viewer screen, click the **Start New Log Files** icon.
 - Step 8** Reproduce the problem.
 - Step 9** To view the log files, in the Tree pane, click **Processes > AvCsMgr**, and then click the **Current** log file.
 - Step 10** The selected log file is appears in the right pane.
 - Step 11** To export or save a copy of the log file, on the Action menu, click **Export List**.
 - Step 12** Name the file and save it to a location of your choice in .txt or .csv format, then click **Save**.
 - Step 13** To turn off the traces set in [Step 4](#), on the Cisco Unity Diagnostic Viewer screen, click the **Disable All Traces** icon.
 - Step 14** In the Disable All Traces Wizard screen, check the **Disable All Traces** check box, and click **Finish**.
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To obtain macro trace MIU diagnostics

- Step 1** On the Windows Start menu, click **Programs > Unity > Unity Diagnostic Tool**.
- Step 2** On the Cisco Unity Diagnostic Viewer screen, click the **Configure Macro Traces** icon. The Configure Macro Traces wizard appears.
- Step 3** On the Welcome page, click **Next**.
- Step 4** On the Configure Macro Traces page, check the boxes for selected traces.
- Step 5** Click **Next**.
- Step 6** On the Completing page, click **Finish**.
- Step 7** On the Cisco Unity Diagnostic Viewer screen, click the **Start New Log Files** icon.
- Step 8** Reproduce the problem.
- Step 9** To view the log files, in the Tree pane, click **Processes > AvCsMgr**, and then click the **Current** log file.
- Step 10** The selected log file is appears in the right pane.
- Step 11** To export or save a copy of the log file, on the Action menu, click **Export List**.
- Step 12** Name the file and save it to a location of your choice in .txt or .csv format, then click **Save**.
- Step 13** To turn off the traces set in [Step 4](#), on the Cisco Unity Diagnostic Viewer screen, click the **Disable All Traces** icon.

- Step 14** In the Disable All Traces Wizard screen, check the **Disable All Traces** check box, and click **Finish**.
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TSP Traces

If Cisco TAC determines that TSP traces are needed, they will ask you to provide them. Do the applicable procedure, depending on the TSP.

To obtain Dialogic TSP traces

- Step 1** Exit the Cisco Unity software, if it is running.
- Step 2** Open a command prompt window and browse to the CommServer directory.
- Step 3** At the command prompt, enter **kill tapisrv** and press **Enter**.
- Step 4** Browse to the CommServer\Dialogic\Debug directory, and locate the file D41mt.tsp (debug TSP).



Caution The debug version of the Dialogic TSP can have a significant impact on system performance. We recommend that this debug TSP be used only while actively reproducing the problem during a period of light system usage.

- Step 5** Copy the file you located in [Step 4](#) to the System32 directory.
- Step 6** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 7** Right-click **AvCsGateway**, and click **Properties**.
- Step 8** In the Startup Type field, click **Manual**, and click **OK**.
- Step 9** Restart the Cisco Unity server.
- Step 10** Log on and open a command prompt window.
- Step 11** Browse to the CommServer\Dialogic\Debug directory.
- Step 12** In the command prompt, enter **dbmon > dbmon.txt** to begin tracing the TSP. The output will go to the Dbmon.txt file.
- Step 13** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 14** Right-click **AvCsGateway**, and click **Start**.
- Step 15** Reproduce the problem.
- Step 16** After the problem has been reproduced, press **Ctrl-C** to stop Dbmon.
- Step 17** Copy the **dbmon.txt** file. Send the file to Cisco TAC.
- Step 18** Replace the debug version of the TSP in the System32 directory with the original file (D41mt.tsp), which is in the CommServer\Dialogic\Lib directory.
- Step 19** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 20** Right-click **AvCsGateway**, and click **Properties**.
- Step 21** In the Startup Type field, click **Automatic**, and click **OK**.
- Step 22** For the changes to take effect, restart the Cisco Unity server.
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To obtain Cisco Unity-CM TSP traces

- Step 1** Confirm that the clocks on Cisco Unity and Cisco CallManager are synchronized.
 - Step 2** Enable tracing on the Cisco CallManager system.
 - Step 3** On the Windows Start menu, click **Programs > Unity > Unity Diagnostic Tool**.
 - Step 4** On the Cisco Unity Diagnostic Viewer screen, click the **Configure Macro Traces** icon. The Configure Macro Traces wizard appears.
 - Step 5** On the Welcome page, click **Next**.
 - Step 6** On the Configure Macro Traces page, check the **Skinny TSP** check box.
 - Step 7** Click **Next**.
 - Step 8** On the Completing page, click **Finish**.
 - Step 9** On the Cisco Unity Diagnostic Viewer screen, click **Start New Log Files**.
 - Step 10** Reproduce the problem.
 - Step 11** To view the log files, in the Tree pane, click **Processes > Svchost**, and then click the **Current** log file.
 - Step 12** The selected log file is appears in the right pane.
 - Step 13** To export or save a copy of the log file, on the Action menu, click **Export List**.
 - Step 14** Name the file and save it to a location of your choice in .txt or .csv format, then click **Save**.
 - Step 15** To turn off the traces set in [Step 6](#), on the Cisco Unity Diagnostic Viewer screen, click the **Disable All Traces** icon.
 - Step 16** In the Disable All Traces Wizard screen, check the **Disable All Traces** check box, and click **Finish**.
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Domino Directory Monitor Diagnostic Traces

You use the Unity Diagnostic Tool to set micro traces for the Domino directory monitor. The micro traces to enable are in the DSDomino group.

Flags To Enable

- If the creation, modification, and/or deletion of subscriber accounts, distribution lists, and/or location objects in the Cisco Unity Administrator fails, then enable flags, 00, 11, 12, and 17.
- If changes made in the Domino directory are not reflected in Cisco Unity, enable flags 15, 16, and 17.
- If the directory monitor service logs an error to the Windows event log saying that it has thrown an exception, then enable flags 00, 01, and 18.

The table below provides descriptions of the diagnostic flags.

Table 2-1 *Diagnostic Flags for the Domino Directory Monitor*

| Diagnostic Flag | Description |
|--|--|
| 00—High level, method entry and exit, and parameter values | Traces Cisco Unity Administrator calls to create, modify, delete, and find subscribers, distribution lists, and locations. Also traces calls to get and set system configuration parameters. |
| 01—Low level, method entry and exit, and parameter values | Traces internal methods calls. Note that enabling this flag will produce very large diagnostic files. |
| 02—Memory | Traces memory allocation and deallocation. There is seldom a need to enable this flag. |
| 10—Password Crypt | Traces handling of the Notes User ID and password. |
| 11—CallProgress | Traces milestones in the internal methods used for importing, updating, and deleting subscribers, distribution lists, and location objects . |
| 12—Method Parameters | Traces the parameters in the internal methods used for importing, updating, and deleting subscribers, distribution lists, and location objects. |
| 13—Sync Start End | Traces synchronization initialization. |
| 14—Monitor Initialization | Traces the initialiation of the directory monitor service. |
| 15—DB Access | Traces access to the SQL database on the Cisco Unity server. |
| 16—Sync Progress | Traces milestones during synchronization. Synchronization happens every minute. |
| 17—Errors | Traces internal API errors |
| 18—Notes API Errors | Traces errors from the Notes API. |
| 19—Notes Fields Read and Write | Traces Notes reads and writes. Note that enabling this flag will produce very large diagnostic files. |