

## CUCM\_Trace\_Lookup\_for\_different\_scenarios

We have a Multi-Services Voice Debug Lookup Tool for different troubleshooting scenarios located here: [www.cisco.com/en/US/tech/tk1077/technologies\\_tech\\_note09186a0080207ec6.shtml](http://www.cisco.com/en/US/tech/tk1077/technologies_tech_note09186a0080207ec6.shtml)

This document indicates the different combination of traces that are required by TAC in different scenarios so that customers can provide complete information to the CSE at the beginning of the case itself. This saves time and allows us to solve the cases faster as majority (if not all) of the right information is given to us, and we do not need to ask for it again. This document only mentions the traces required from the call manager side of the issue. If other applications such as Attendant Console, UCCX, gateways are involved, we will need the respective traces from there as well.

There is a Cisco Support Forums document that indicates the locations of the traces for different services in call manager. This can be used in case the RTMT tool is not functioning as expected, and when solving the main problem is a priority. This document is located here: [supportforums.cisco.com/docs/DOC-16943](http://supportforums.cisco.com/docs/DOC-16943)

**NOTE 1:** Please make sure that the traces for the services in question (e.g. Cisco Call Manager, Cisco Extension Mobility, Cisco Dirsync) are at the highest level possible during the occurrence of issue or when re-creating the issue. Traces not set to the highest level are incomplete.

I have specified a few scenarios below that are commonly faced by the customer. This can be used as a reference.

**NOTE 2:** The required traces have to be collected from all servers in the cluster to account for SDL communication between the servers for call processing or media resources.

I am attaching a few images here of the traces that are usually collected from the "Collect Files" option in RTMT.

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✕

Collect Files

Select UCM Services/Applications

Select all Services on all Servers

Name	All Servers	<input type="checkbox"/> ccm01
<u>Cisco AXL Web Service</u>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Bulk Provisioning Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CAR Scheduler	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco CAR Web Service</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco CDR Agent</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco CDR Repository Manager</u>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CDR files on CM server	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CDR files on Publisher Processed	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco CTIManager</u>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CTL Provider	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco CallManager</u>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CallManager Cisco IP Phone Services	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CallManager SNMP Service	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco Certificate Authority Proxy Function</u>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Change Credential Application	<input type="checkbox"/>	<input type="checkbox"/>
Cisco DHCP Monitor Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Dialed Number Analyzer	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Extended Functions	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Extended Functions Report	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco Extension Mobility</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco Extension Mobility Application</u>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco IP Manager Assistant	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco IP Voice Media Streaming App</u>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Intercluster Lookup Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco License Manager	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Location Bandwidth Manager	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Messaging Interface	<input type="checkbox"/>	<input type="checkbox"/>
Cisco TAPS Service	<input type="checkbox"/>	<input type="checkbox"/>

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Cisco Tftp	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco Trust Verification Service</u>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco UXL Web Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Unified Mobile Voice Access Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco User Data Services	<input type="checkbox"/>	<input type="checkbox"/>
Cisco WebDialer Web Service	<input type="checkbox"/>	<input type="checkbox"/>
SOAP - Diagnostic Portal Database Service	<input type="checkbox"/>	<input type="checkbox"/>

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**PAGE II**

## CUCM\_Trace\_Lookup\_for\_different\_scenarios

Collect Files
X

Select System Services/Applications

Select all Services on all Servers

Name	All Servers	<input type="checkbox"/> ccm01
Boot Logs	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco AMC Service</u>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco AMC Service AlertLog	<input type="checkbox"/>	<input type="checkbox"/>
Cisco AMC Service CallLog	<input type="checkbox"/>	<input type="checkbox"/>
Cisco AMC Service DeviceLog	<input type="checkbox"/>	<input type="checkbox"/>
Cisco AMC Service PPRLog	<input type="checkbox"/>	<input type="checkbox"/>
Cisco AMC Service ServerLog	<input type="checkbox"/>	<input type="checkbox"/>
Cisco AMC Service ServiceLog	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Abort Transaction Spooling	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Audio Translator App	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Audit Event Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Audit Logs	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CCM DBL Web Library	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CCM NCS Web Library	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CCM PD Web Service	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco CCMAdmin Web Service</u>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CCMRealm Web Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CCMService Web Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CCMUser Web Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CDP	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CDP Agent	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Called Party Tracing	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco Common User Interface</u>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco ControlCenter CLI	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Corefile Recovery Tool	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco DRF Local</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco DRF Master</u>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Database Cli Output	<input type="checkbox"/>	<input type="checkbox"/>

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Collect Files X

Select System Services/Applications

Select all Services on all Servers

Name	All Servers	<input type="checkbox"/> ccm01
Cisco Database Installation Service	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco Database Layer Monitor</u>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Database Library Trace	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Database Notification Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Database Replicator Trace	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco DirSync</u>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Discovery Responder Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco E911 Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco External Call Control Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco GRT Communication Web Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Informix Database Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Log Partition Monitoring Tool	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Log4jinit Servlet	<input type="checkbox"/>	<input type="checkbox"/>
Cisco RIS Data Collector	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco RIS Data Collector PerfMonLog</u>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco RTMT Web Service	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco RisBean Library</u>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Role-based Security	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Row Information Spooling	<input type="checkbox"/>	<input type="checkbox"/>
Cisco SOAP Web Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco SOAPMessage Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco SSO	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Serviceability Reporter	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Serviceability Reporter AlertReport	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Serviceability Reporter CallActivitiesRe...	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Serviceability Reporter DeviceReport	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Serviceability Reporter PPRReport	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Serviceability Reporter ServerReport	<input type="checkbox"/>	<input type="checkbox"/>

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Collect Files
X

Select System Services/Applications

Select all Services on all Servers

Name	All Servers	<input type="checkbox"/> ccm01
Cisco Stored Procedure Trace	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Syslog Agent	<input type="checkbox"/>	<input type="checkbox"/>
<u>Cisco Tomcat</u>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Tomcat Security Logs	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Tomcat Stats Servlet	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Trace Collection Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Unified OS Admin Web Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Unified OS Platform API	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Unified Reporting Web Service	<input type="checkbox"/>	<input type="checkbox"/>
Cisco WebDialerRedirector Web Service	<input type="checkbox"/>	<input type="checkbox"/>
Cron Logs	<input type="checkbox"/>	<input type="checkbox"/>
<u>Event Viewer-Application Log</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Event Viewer-System Log</u>	<input type="checkbox"/>	<input type="checkbox"/>
FIPS Logs	<input type="checkbox"/>	<input type="checkbox"/>
Host Resources Agent	<input type="checkbox"/>	<input type="checkbox"/>
IPT Platform CLI Created Reports	<input type="checkbox"/>	<input type="checkbox"/>
IPT Platform CLI Logs	<input type="checkbox"/>	<input type="checkbox"/>
IPT Platform Cert Monitor Logs	<input type="checkbox"/>	<input type="checkbox"/>
IPT Platform CertMgr Logs	<input type="checkbox"/>	<input type="checkbox"/>
IPT Platform Cluster Manager Logs	<input type="checkbox"/>	<input type="checkbox"/>
IPT Platform GUI Logs	<input type="checkbox"/>	<input type="checkbox"/>
IPT Platform IPSecMgmt Logs	<input type="checkbox"/>	<input type="checkbox"/>
IPT Platform RemoteSupport Logs	<input type="checkbox"/>	<input type="checkbox"/>
Install File Signing	<input type="checkbox"/>	<input type="checkbox"/>
<u>Install and Upgrade Logs</u>	<input type="checkbox"/>	<input type="checkbox"/>
MIB2 Agent	<input type="checkbox"/>	<input type="checkbox"/>
Mail Logs	<input type="checkbox"/>	<input type="checkbox"/>
Mgetty Logs	<input type="checkbox"/>	<input type="checkbox"/>

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NTP Logs	<input type="checkbox"/>	<input type="checkbox"/>
Netdump Logs	<input type="checkbox"/>	<input type="checkbox"/>
<u>Packet Capture Logs</u>	<input type="checkbox"/>	<input type="checkbox"/>
Prog Logs	<input type="checkbox"/>	<input type="checkbox"/>
SAR Logs	<input type="checkbox"/>	<input type="checkbox"/>
SELinux logs	<input type="checkbox"/>	<input type="checkbox"/>
SNMP Master Agent	<input type="checkbox"/>	<input type="checkbox"/>
Security Logs	<input type="checkbox"/>	<input type="checkbox"/>
Service Manager	<input type="checkbox"/>	<input type="checkbox"/>
Service Registration Logs	<input type="checkbox"/>	<input type="checkbox"/>
Spooler Logs	<input type="checkbox"/>	<input type="checkbox"/>
System Application Agent	<input type="checkbox"/>	<input type="checkbox"/>

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## 1. CALL ROUTING

### a. Detailed Cisco Call Manager Traces

Please make sure that the SIP Call Processing Traces and SIP Stack traces are also checked in case you have any SIP devices/trunks involved in the call flow. SIP Stack traces should be enabled when the call volume is not very high as it takes up more CPU cycles, leaving less available for call processing.

SoftKey traces are also important and can be turned on.

We don't need to change the level of SDL traces, unless explicitly asked for.

Trace On

**Trace Filter Settings**

Debug Trace Level Detailed

Cisco CallManager Trace Fields

<input checked="" type="checkbox"/> Enable H245 Message Trace <input checked="" type="checkbox"/> Enable DT-24+/DE-30+ Trace <input checked="" type="checkbox"/> Enable PRI Trace <input checked="" type="checkbox"/> Enable ISDN Translation Trace <input checked="" type="checkbox"/> Enable H225 & Gatekeeper Trace <input type="checkbox"/> Enable Miscellaneous Trace <input checked="" type="checkbox"/> Enable Conference Bridge Trace <input checked="" type="checkbox"/> Enable Music On Hold Trace <input checked="" type="checkbox"/> Enable CM Real-Time Information Server Trace <input type="checkbox"/> Enable SIP Stack Trace <input checked="" type="checkbox"/> Enable Annunciator Trace <input type="checkbox"/> Enable SoftKey Trace <input type="checkbox"/> Enable Route or Hunt List Trace	<input checked="" type="checkbox"/> Enable CDR Trace <input checked="" type="checkbox"/> Enable Analog Trunk Trace <input checked="" type="checkbox"/> Enable All Phone Device Trace <input checked="" type="checkbox"/> Enable MTP Trace <input type="checkbox"/> Enable All GateWay Trace <input checked="" type="checkbox"/> Enable Forward & Miscellaneous Trace <input checked="" type="checkbox"/> Enable MGCP Trace <input checked="" type="checkbox"/> Enable Media Resource Manager Trace <input checked="" type="checkbox"/> Enable SIP Call Processing Trace <input type="checkbox"/> Enable SCCP Keep Alive Trace <input type="checkbox"/> Enable SpeedDial Trace <input type="checkbox"/> Enable SIP Keep Alive (REGISTER Refresh) Trace
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Device Name Based Trace Monitoring

b. Event Viewer - Application and Event Viewer - System logs.

c. Timestamps of call failures, Calling and Called numbers.

d. Detailed Call Flow (Devices involved in the call flow & Protocols).

## 2. HIGH CPU/MEMORY UTILIZATION

Please collect all of the below traces for a particular time period before the problem began till after the problem went away. For instance, if we started observing high CPU or memory usage at 4 P.M. and the

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problem went away by 5 P.M., then we would collect traces for a time interval of 3:30 P.M. to 5:30 P.M. This time interval can vary from one issue to another, and also based on the customer set up.

- a. Detailed Cisco Call Manager traces.
- b. Event Viewer - Application and Event Viewer - System logs.
- c. Cisco RISDC and Perfmon logs.
- d. Cisco AMC service.
- e. Cisco Tomcat and Tomcat Security logs.
- f. Outputs from CLI: 'show status', 'show process using-most cpu/memory', 'show process load'.
- g. Output of 'utils diagnose test'.

### **3. EXTENSION MOBILITY LOGINS**

- a. Detailed Cisco Call Manager traces.
- b. Cisco Extension Mobility.
- c. Cisco Extension Mobility Application.
- d. Cisco Tomcat and Tomcat Security logs.

### **4. AGENT LOGINS - UCCX**

- a. Detailed Cisco Call Manager traces.
- b. Cisco Extension Mobility.
- c. Cisco Extension Mobility Application.
- d. Cisco Tomcat and Tomcat Security logs.
- e. Cisco AXL Web Service.
- f. Detailed Cisco CTI Manager logs.

## **5.LDAP SYNCHRONIZATION/AUTHENTICATION**

- a. Cisco Dirsync logs.
- b. Cisco Tomcat and Tomcat Security logs.
- c. Packet Captures on the call manager server when the sync is initialized also help.

## **6.DRF BACKUP**

- a. Cisco DRF Master.
- b. Cisco DRF Local.
- c. Failure logs from the DRF 'Current Status' page.

## **7. PHONE REGISTRATION**

- a. Detailed Cisco Call Manager traces.
- b. Packet captures from both sides - CUCM server and IP Phone or the switch port to which the IP Phone is connected.
- c. Event Viewer - Application and Event Viewer - System logs.
- d. Phone Status Messages.
- e. Phone Console Logs.

## **8.IPMA**

- a. Detailed Cisco Call Manager traces.
- b. Detailed Cisco CTI Manager traces.
- c. Cisco IP Manager Assistant.
- d. JTAPI logs from the client side - PC.



**9. CAR/CDR**

- a. Cisco CAR Scheduler.
- b. Cisco CAR Web Agent.
- c. Cisco CDR Agent.
- d. Cisco CDR Repository Manager

**10. SECURITY** - Such as IP Phone rejected due to security errors/ TLS Connections not setting up.

- a. Detailed Cisco Call Manager traces.
- b. Cisco CTL Provider.
- c. Cisco Trust Verification Service.
- d. Cisco Certificate Authority Proxy Function.

**11. MEDIA RESOURCES** - MOH not working/ DTMF issues/ No Ringback/ Conference drops/ MTP or XCoder Allocation failures

- a. Detailed Cisco Call Manager traces.
- b. Cisco IP Voice Media Streaming App.
- c. Event Viewer - Application and Event Viewer - System logs.

**12. COREDUMP**

- a. utils core active list.
- b. utils core active analyze <coredump name>.

### 13. GUI DISPLAYS WRONG STATUS INFORMATION

- a. Cisco CCMAAdmin Web Service.
- b. Cisco Common User Interface.
- c. Cisco Database Layer Monitor.
- d. Cisco Database Notification Service.
- e. Cisco RisBean Library.
- f. Cisco Tomcat.

### 14. TOMCAT ISSUES

- a. Cisco Tomcat and Tomcat Security logs.
- b. Output of 'utils diagnose test'. This may generate a heap dump, which you can then collect using 'file get activelog tomcat/logs/\*'
- c. Detailed Cisco Call Manager traces.