

Troubleshoot Webex Connected UC Telemetry Module from GUI and CLI

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Introduction

This document describes how to troubleshoot the CCUC Telemetry module from the Webex Control Hub and CUCM CLI.

Prerequisites

Requirements

Cisco recommends knowledge of these topics:

- The command line interface (CLI) of Cisco Unified Communications Manager (CUCM)
- Complete the process outlined here: [Set Up Webex Cloud-Connected UC for On Premise Devices](#).

Components Used

- Cisco Unified Communications Manager version 12.5.1.14900-63
- Webex Control Hub (<https://admin.webex.com>)

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

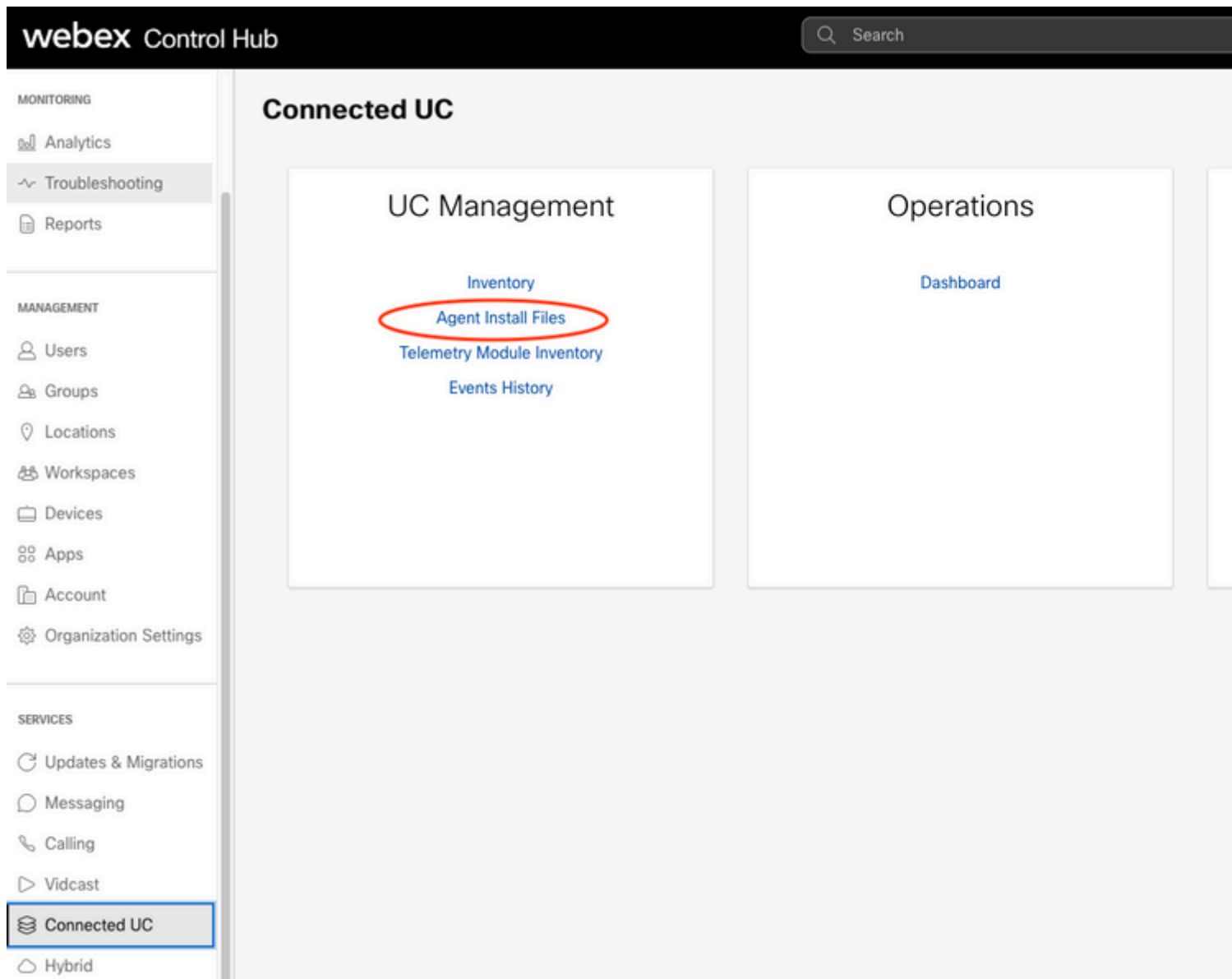
Before You Begin

On-premise CUCM includes **Cloud-Connected UC Agent** pre-installed in versions 12.5.1 SU4 or higher.

Earlier versions need the Agent installed manually. Browse to **Agent Install Files** page in **Webex Control Hub**.

Find **Services** on the left side, and click **Connected UC**.

Click **Agent Install Files** in the **UC Management** pane.



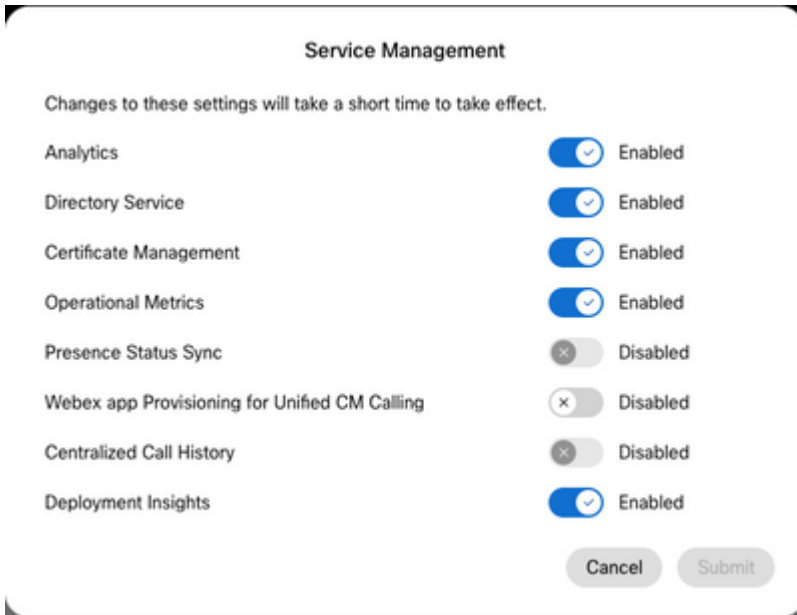
Telemetry Module

The telemetry module is part of the **Connected UC UCMGMT Agent**.

The telemetry module uploads data from your on-premise CUCM, CER, CUPS, or CUC nodes into the **Webex Control Hub**.

Data uploaded includes operational metrics of the CUCM nodes, CDR and CMR records for Analytics and more.

To receive the greatest amount of data in Control Hub, ensure **Analytics** and **Operational Metrics** are enabled in the **Service Management** window in your Cluster Group.



However, the **Telemetry Module** is not installed on any node until after the UCMGMT Agent is Verified in Connected UC.

In **Webex Control Hub**, find **Services** on the left, click **Connected UC**.

In the **UC Management** pane, click **Inventory**.

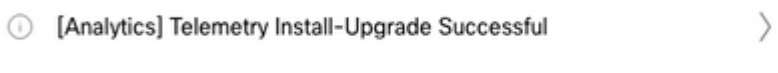
Here, **Cluster Groups** are defined and node are verified.

Once verified, the agent receives a job request from **Webex Control Hub** to install the **Telemetry Module** on the verified node.

The agent requires up to 1.5 hours to complete the installation.

Once installed, an information notice appears in **Connected UC Inventory** on each node where the Telemetry module was installed successfully.

Click on the individual nodes to see all notices for that node.



Browse to Telemetry Module Inventory.

In **Webex Control Hub**, find **Services** on the left, click **Connected UC**.

In the **UC Management** pane, click **Telemetry Module Inventory**.

If there are no connectivity issues, node Status is Online.

CUCM	SUBSCRIBER	Online
CUCM	PUBLISHER	Online

Troubleshoot

Problems with the Telemetry Module can arise, such as:

- Module does not start
- Data fails to upload to Control Hub

For example: In **Webex Control Hub**, find **Monitoring** on the left menu.

If you select either **Analytics** or **Troubleshooting**, there is a section of data for **Connected UC** populated by the telemetry module.

When problems arise, these sections can have incomplete data, or no data, or errors messages appear in the data collected.

Be aware that In **Connected UC > Telemetry Module Inventory** nodes can report Offline, even if the node in the UC Management Inventory reports as Online.

This indicates an issue with the telemetry module.

To begin to troubleshoot, click on your node in **Telemetry Module Inventory** and note the information on the panel that appears on the right.

Agent Version	20230323-619
Agent Status	Online
Agent Last Connection	03-28-2023 18:21:17
<hr/>	
Telemetry Module Details	
Telemetry Module Version	1634
Telemetry Module Status	Online
Telemetry Module Last Connection	03-28-2023 18:20:05
<hr/>	
Telemetry Module Action	
Pause CCUC Services	
<hr/>	

Both the **Agent Status** and **Telemetry Module Status** must report as Online.

Note the **Last Connection** time for Agent and Telemetry Module.

If these two fields are not within several minutes of the current time, this can indicate an issue with connectivity or services that have failed.

The Agent

Examine the Agent version in the panel information.

The first eight digits are the date this version was published.

Is the date more than four to six months old? If so, the agent most likely did not automatically update itself and the telemetry module as scheduled.

To attempt to update the agent version, try two methods.

1. Connect to the CLI of your node and run this command: **utils ucmgmt agent restart**.

```
admin:utils ucmgmt agent restart
```

```
Stopping agent..
```

```
Agent is restarting. Check agent status with 'utils ucmgmt agent status'.  
admin:
```

That triggers the Agent to restart.

Whenever the Agent starts, it always attempts to update itself and the telemetry module.

Wait at least 10 to 15 minutes.

Then check the version installed with this command: **utils ucmgmt agent status**.

```
admin:utils ucmgmt agent status  
Agent Config Information:  
  Verification Code: XXXXXXXX  
  Installed UCMGMT Agent version: 20230323-619  
  Agent's organization id: XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX
```

```
Agent Runtime Information:  
  Agent process is running.  
  Agent process is enabled.  
  Agent watchdog is enabled.  
  Agent is verified in Webex Control Hub.
```

Note the '**Installed UCMGMT Agent version**' in the output of that command.

Check that the version number is updated to a more recent date.

2. Download a new Agent Install COP file from the **Agent Install Files** page in **Connected UC**.

Install that COP file on all nodes where the Agent version is out of date.

Proxy

A network proxy or web proxy can be required in your environment to connect to web services.

If so, ensure a proxy is configured for the agent.

```
admin:utils ucmgmt proxy list
      "http://10.0.0.1:9999"
admin:
```

In the output of the command: **utils ucmgmt proxy list**

Note if a proxy is configured.

If it is not configured, use the command:

```
utils ucmgmt proxy add <proxy_URL> <username>
```

Replace **<proxy_URL>** with the URL of the proxy in your environment.

Proxy_URL is mandatory for this command.

If your proxy requires authentication, enter the username. The system prompts you for the authentication password. Otherwise, username is optional.

Telemetry Module

Caution: A service can be on your node (when you run the command: **utils service list**), that includes the word 'Telemetry'. If so, do not manipulate this service. That Telemetry service is not related to Cloud Connected UC telemetry. The CCUC Telemetry Module is not visible in the Serviceability GUI or in the list of services visible from the CLI.

First, check that the telemetry module is installed and the version number from the CLI.

In the CLI of your node, enter this command: **show version active**

In the output of the command, if a line with **ciscocm-ucmgmt-ucTelemetry** is displayed, the telemetry module is installed.

If a line with **ciscocm-ucmgmt-agent** is displayed, the agent is installed.

The version number of the agent and telemetry module are also visible in the output of that command.

```
admin:show version active
Active Master Version: 12.5.1.14900-63
Active Version Installed Software Options:
...
ciscocm-ucmgmt-agent-upgrade.v20230329-620.k4.cop
ciscocm-ucmgmt-ucTelemetry.v1634.k4.cop
```

Next check connectivity. Run the these commands from the CLI of your node:

```
utils network connectivity gw.telemetry.ucmgmt.cisco.com 443
utils network connectivity telemetry-mgmt.na.ucmgmt.cisco.com 443
utils network connectivity gw.telemetry-eu.ucmgmt.cisco.com 443
utils network connectivity telemetry-mgmt.eu.ucmgmt.cisco.com 443
```

The output of each of those commands needs to end with '**Service accessible**'.

If they return '**Connection timed out**' or '**Connection refused**', there is a connectivity issue that must be resolved with internal network or security teams.

WebSockets is required for proper CCUC functionality.

Web proxies, URL Filters and firewalls can block WebSockets traffic.

WebSockets communicates via TCP over port 443, like SSL/TLS, however, the URLs for WebSockets are written in a different manner.

TLS URLs look like this: **https://domain.test**

WebSockets URLs look like this: **wss://domain.test**

Ensure WebSockets traffic can flow between the nodes and the Webex cloud.

Next step is to attempt to pause the CCUC services.

Click on your node in **Telemetry Module Inventory**, then click **Pause CCUC Services** button in the panel that appears on the right.

Wait a minimum of two to three minutes for the Pause operation to complete. The node status changes from 'Stopping' to 'Stopped By User'.

Now click on your node and click **Resume CCUC Services** button. The node status changes from 'Starting' to 'Online'.

That Pause and Resume process can fix some telemetry module issues.

If trouble persists with any of these areas in Control Hub:

- **Analytics > Connected UC** has a lack data or errors appear in the call data collected
- **Troubleshooting > Connected UC** has a lack data or errors appear in the call data collected
- In **Telemetry Module Inventory** node still appears Offline

Then examine the TelemetryReport.txt file from the CLI.

Run this command from the CLI of the node: **file view activelog telemetry/TelemetryReport.txt**

Press '**n**' until you reach the end of the file.

```
admin:file view activelog telemetry/TelemetryReport.txt
```

=====
Cisco Webex Cloud-Connected UC Telemetry Report
=====

All information in this report is to be used for debugging purpose by Cisco.

Report Generated On(GMT) 2023-03-28 11:06:00
Status connected
Module Version 1634
Start Time(GMT) 2023-03-28 11:05:07
Org ID XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX
Time Zone CST
Cluster Name YourClusterName
Node Type ccm
Product Version 12.5.1.14900-63
Cluster Id XXXXXXXXâ€”XXXX-XXXX-XXXX-XXXXXXXXXXXX
Agent Id XXXXXXXXâ€”XXXX-XXXX-XXXX-XXXXXXXXXXXX
Host Name YourPublisher
Buffer Allocation 100 MB
Node Id AAAABBBBCCCC
Proxy

Telemetry Checks (2023-03-27 23:54:48 GMT)

Result	Test
-----	----
Pass	JTelemetry module is running
Pass	Cluster upgrade not in progress
Fail	CMR is enabled
- CMR collection is off	
Pass	CDR is enabled
Pass	CDR file transfer
Fail	Zero call duration enabled
- Zero duration call is disabled	
Pass	Check high CDR duration
Pass	Websocket-broker is running

Websocket-broker Status (2023-03-28 19:56:49 GMT)

Connection Status connected
Start Time(GMT) 2023-03-28 11:02:43
Connected Time(GMT) 2023-03-28 11:04:48
Disconnected Time(GMT) 2023-03-28 11:02:43
Connected Duration(s) 31921
DisconnectedDuration(s) 125
ConnectedCount 1
DisconnectedCount 0

CCUC Service Information (2023-03-28 19:57:00 GMT)

Analytics	Enabled
Deployment Insights	Enabled
Deployment Insights Limited	Disabled
Certificate Management	Enabled
Operation Metrics	Enabled
Borderless CTI	Disabled
Presence Status Sync	Disabled
Centralised Call History	Disabled

Collect Privacy Data Enabled

end of the file reached

Examine the contents of this file. Verify this information:

In the first section:

- Date and time was the report generated. If the date is days in the past, instead of hours in the past, this indicates the telemetry module has stopped running.
- Status needs to be 'connected'. Otherwise, this indicates a connectivity issue.

In the **Telemetry Checks** section:

- Any tests that fail can indicate incorrect configuration of your node.

See the '**Set Up**' and '**Troubleshoot**' documents linked in the **Additional Information** section of this article to correct the configuration of your nodes.

In the **WebSocket-broker Status** section:

- The **Connection Status** needs to be 'connected'. Otherwise, this indicates a connectivity or proxy issue.
- A large number in the **DisconnectedCount** field can also indicate a connectivity or proxy issue.

In the **CCUC Service Information** section:

The Enabled and Disabled services match what you saw earlier in the **Service Management** window of your Cluster Group.

If they do not match, there is a connectivity issue or the telemetry module has a failure.

You also can examine the `jtelemetry_error.log` to see if the telemetry module has logged any errors.

To view this file, run the command: **file view activelog telemetry/jtelemetry_error.log**

The log file is not easy to read, but it is possible to find an indication of what is the cause of the error.

When any of these errors persist, even beyond a reboot of the node, open a support case with TAC.

Additional Information

<https://help.webex.com/en-us/article/x8s8vs/Troubleshoot-Webex-Cloud-Connected-UC>

<https://help.webex.com/en-us/article/nzt6c0b/Set-Up-Webex-Cloud-Connected-UC-for-On-Premises-Devices>

<https://help.webex.com/en-us/article/fg3qim/Network-Requirements-for-Webex-Cloud-Connected-UC>

<https://help.webex.com/en-us/article/55mug2/System-Requirements-for-Webex-Cloud-Connected-UC>