CHAPTER 1

Troubleshooting the Cisco Unified Videoconferencing 5100 MCU

Resolving MCU Failure to Register with the Gatekeeper

This section describes what to do if the MCU fails to register with the Cisco IOS H.323 Gatekeeper.

Possible Causes	Verification Steps
The gatekeeper address is set incorrectly.	Verify the gatekeeper IP address settings.

Possible Causes	Verification Steps
TCP/IP setup issue.	Verify that the MCU is assigned a unique IP address. Verify that the subnet mask and default gateway subnet mask are set correctly. Attempt to the ping the MCU from the gatekeeper to verify whether the MCU is reachable. Ensure the IP address assigned to the MCU is unique and not duplicated anywhere on the network.
LAN or cable problem	Verify the switch port settings. Verify that the Ethernet cable is straight through. Try another Ethernet cable. Verify if the switch port LEDs show Link and Activity.

Resolving MCU Conference Initiation Failure

This section describes what to do if MCU conference initiation fails.

Possible Causes	Verification Steps
The MCU is set to work with an external authorization server, but no authorization server is configured.	Verify that the External conference authorization policy option is set to None in Maintenance > Advanced parameters > External conference policy authorization.
The MCU is set to work with an external authorization server, but the authorization server is not configured properly to work with the MCU.	Verify that the MCU IP address is correctly configured in the authorization server.
There are not enough MCU resources available for the desired conference.	Verify that current calls are not utilizing all resources by checking the available MCU capacity and then trying to disconnect other calls in order to find the problem.

Resolving Conference Access Failure

This section describes what to do if an endpoint cannot be invited to a conference or dial into the conference.

Possible Causes	Verification Steps
The MCU is configured to work with an authorization server, but the endpoint is not authorized and therefore the authorization server rejects the call.	Check if the endpoint is authorized in the authorization server. For more information, see the "Managing Endpoints in Network Manager" section of the *Configuration Guide for Cisco Unified Videoconferencing Manager Release 7.0*.
The endpoint is currently in a call.	Confirm that the endpoint is not busy/in a call.
There are not enough MCU resources available for the desired conference.	Remove one of the current participants to verify that the endpoint can join successfully. Verify whether cascading is enabled and if the meeting is scheduled for cascading.

Resolving Cascading Failure

This section describes what to do if MCU conference cascading fails.

Possible Causes	Verification Steps
The invited conference does not exist, and the remote MCU is not in Ad Hoc (Scheduler, Web, Control API and dial-in) mode.	If ad hoc conferencing is not allowed for the remote MCU, and the remote conference does not exist, create the conference and then cascade it (web/dial invite).
Service prefixes are not unique and there is service prefix conflict.	Verify that all cascaded MCU modules have unique service prefixes.
The remote MCU module is not registered with its gatekeeper.	Verify proper registration of all MCU modules with their respective gatekeepers.
Not enough ports are available to accomplish cascading. **Note** Cascading requires one port from each conference.	Check on the Status web page that the number of free ports on each MCU used is not zero.
Services are not synchronized.	Verify that service definitions do not include differences such as H.235 being enabled on one conference only.

Resolving Quality Issues in Cascaded Conferences

This section describes what to do if a cascaded conference suffers long delays or bad lip synchronization.

Possible Causes	Verification Steps
Unsuitable topology used (for example, chain topology used unnecessarily).	One single central MCU should invite all other cascaded MCUs. We recommend that you do not have more than one level of cascaded MCUs. Use a star topology, where the central MCU is in the center of the star, and other cascaded MCU modules are on the arms of the star.

Resolving Endpoint Disconnection Issues

This section describes what to do if endpoints unexpectedly drop out of the MCU conference.

Possible Causes	Verification Steps
Unreliable network link.	Check network link quality (round trip time should be less than 300 msec).

Resolving Unexpected Conference Termination

This section describes what to do if a conference on the MCU unexpectedly terminates.

Possible Causes	Verification Steps
The Ad hoc conferences terminate when option at **Configuration > Conferences** is set to Conference creator leaves and the conference creator has left the conference.	Set the Ad hoc conferences terminate when option at **Configuration > Conferences** to **Last participant leaves**.

Resolving Presentation Issues

This section describes what to do if you cannot start or receive a presentation during a conference.

Possible Causes	Verification Steps
H.239 functionality is not enabled on your endpoint.	Verify that H.239 is enabled on the endpoint. Make a point-to-point call to another endpoint and verify that you can start a presentation.
Presentation is not configured in the MCU service used in your conference.	Configure the service to support presentation at **Configuration > Conferences > Services list > More > Enable presentation views**.
MCU presentation definitions in the service are not supported by your endpoint (frame rate, frame size, codec).	Check that your endpoint supports the frame size, frame rate and video codec as defined in the service.

Resolving Unexpected SIP Call Disconnection

This section describes what to do if a SIP call unexpectedly disconnects after 30 seconds.

Possible Causes	Verification Steps
DNS is not fully configured on the MCU and user agents.	Verify that DNS is configured on user agent and MCU.