



Advanced Call Handling Overview

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About Advanced Call Handling

The chapters in this part describe different ways to configure advanced call handling in your system. With the functions outlined in this part, you can configure how your system handles a call at any point in the call flow at a more granular level than basic call handling features such as call forwarding. The task flow in this part lists each call handling function, describes the purpose for configuring it, and links to the applicable chapter that provides further details.

Advanced Call Handling Configuration

Complete the following task flows to configure advanced call handling for your system.

Procedure

	Command or Action	Purpose
Step 1	APIC-EM Controller Configuration Task Flow	In order to manage network quality of service (QoS) for SIP calls, deploy a Cisco Application Policy Infrastructure controller Enterprise module (APIC-EM). APIC-EM applies DSCP markings to media flows created by communication sessions among Cisco Unified Communications Manager-managed SIP endpoints and trunks. Applying DSCP markings to media flows ensures that audio and video media will not be blocked by other lower priority network traffic such as email, print jobs, and software downloads.
Step 2	Call Control Discovery Configuration Task Flow	Configure call control discovery to advertise the Cisco Unified Communications Manager to other call control entities that use the Service

	Command or Action	Purpose
		Advertisement Framework (SAF) network. These call control entities can use the advertised information to dynamically configure their routing operations for the call.
Step 3	External Call Control Configuration Task Flow	Configure external call control to have an adjunct route server make call-routing decisions for your system. Unified Communications Manager issues a route request to an adjunct route server, which provides instructions about how to route the call, along with any additional call treatment to apply.
Step 4	Call Queuing Task Flow	Configure call queuing to place callers in a queue until hunt members are available to answer them.
Step 5	Call Throttling Configuration	Configure call throttling to automatically throttle or deny new call attempts when system conditions can cause users to experience a delay in the interval between going off hook and receiving a dial tone. We recommend that you not modify call throttling parameters unless advised to do so by Cisco customer support.
Step 6	Calling Party Normalization Configuration Task Flow	Configure calling party normalization to reformat incoming phone numbers so that they display on the recipient's phone as globalized or localized phone numbers. Use this feature to improve callback functionality when a call is routed to multiple geographic locations, and to map a global calling party number to its localized variant so that a phone can return a call without modifying the directory number in the call log directories on the phone.
Step 7	Logical Partitioning Configuration Task Flow	Configure logical partitioning to satisfy regulatory requirements in markets where toll bypass is forbidden. For example, you can configure a policy prevent users from initiating restricted calls by using midcall features such as conference join and redirect.
Step 8	Geolocation and Location Conveyance Task Flow	Specify a geolocation for every device and communicate geolocation information across clusters. Geolocations assign a civic address to devices so that communication between devices can be controlled based on legal requirements in certain countries.

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Step 9	Location Awareness Configuration Task Flow	Location Awareness allows administrators to determine the physical location from which a phone connects to the company network.
Step 10	AAR Configuration Task Flow	Configure your system to automatically reroute calls through the PSTN or other networks when your system blocks a call due to insufficient location bandwidth. With automated alternate routing, the caller does not need to hang up and redial the called party.
Step 11	Multilevel Precedence and Preemption Task Flow	Configure Multilevel Precedence and Preemption (MLPP) if you want to allow validated users to place priority calls. If necessary, these users can preempt lower priority phone calls.
Step 12	Two Stacks (IPv4 and IPv6) Configuration Task Flow	If you want your endpoints to be able to support both IPv4 and IPv6 addressing, complete these tasks to configure two stack support for endpoints.

