Use Webex Calling Call Queue Silent Overflow Workaround Using Zero Queue Size Configuration

Contents

Issue

Incoming PSTN calls to Webex Calling call queues experience silence with no ringback tone and can disconnect after approximately 20 seconds when agents are busy or unavailable. The calls enter the call queue overflow state but callers do not hear any audio feedback during the waiting period, creating the perception that calls have failed. Overflow handling does not occur as initially expected, causing callers to believe the telephone system is defective and impacting inbound call handling at affected business locations.

Specifically, the issue occurs when:

- All agents in the call queue are busy with other calls.
- Calls remain silent during the configured overflow timer period (typically 24 seconds).
- No ringback tone or audio is provided to callers while waiting.
- PSTN side initiates call disconnect after approximately 20 seconds due to silence.
- Expected overflow forwarding to secondary call queues cannot complete due to premature disconnection.

Environment

- Webex Calling call queues
- PSTN inbound calling
- Multiple call queue configuration with overflow settings.
- Call queue overflow timer configured (typically 24 seconds).
- No welcome IVR message configured on affected call queues.

Resolution

The issue was resolved by implementing a configuration workaround that forces immediate overflow handling when agents are busy, eliminating the silent waiting period that caused caller confusion and PSTN disconnections.

Root Cause Analysis

Technical investigation revealed that:

- Webex Calling answers calls immediately upon queue entry (sends 200 OK), preventing PSTN ringback tone generation.
- When no welcome IVR message is configured, callers experience silence during the overflow timer period.
- PSTN providers typically disconnect silent calls after approximately 20 seconds.
- The configured overflow timer of 24 seconds exceeded the PSTN disconnect threshold.

Workaround Configuration

This configuration change was implemented to resolve the silent call queue issue:

Step 1: Access Call Queue Configuration

Navigate to the **Webex Control Hub** and access the affected call queue settings.

Step 2: Modify Queue Size Setting

Change the **"Number of Calls in Call Queue"** parameter from the default value (typically 100) to 0.

Step 3: Verify Overflow Configuration

Ensure that overflow handling is properly configured to forward calls to the next call queue or destination when the queue capacity is reached.

Configuration Behavior

With the "Number of Calls in Call Queue" set to 0:

- Calls cannot be held in the call queue waiting state.
- If an agent is available, they have the full alerting time (typically 24 seconds) to answer the call.
- If no agents are available or all agents are busy, overflow forwarding triggers immediately.
- Callers hear ringback tone while the call rings to available agents.
- When overflow occurs, calls are immediately forwarded to the next configured destination.

Validation Testing

The workaround was validated through these test scenarios:

Test Case 1: Agent Available

When an agent is available in the call queue, the call rings normally and the agent can answer within the configured time period.

Test Case 2: All Agents Busy

When all agents in the first call queue are busy, the call immediately triggers overflow handling and forwards to the second call queue where available agents can answer the call.

Result: Callers experience immediate ringback tone and successful call completion without silent waiting periods.

Additional Considerations

While this workaround resolves the silent call issue, be aware that:

- This configuration causes the call queue to behave more like a hunt group.
- Standard call queue queuing features are limited when the queue size is set to zero.

- The PSTN disconnect timer issue remains a separate concern that can be addressed with the PSTN carrier if longer queue waiting is desired in the future.

Cause

The root cause was a combination of Webex Calling call queue design behavior and PSTN carrier limitations:

Primary Cause: Webex Calling immediately answers calls upon queue entry (sends SIP 200 OK), which prevents the PSTN from generating ringback tones. When no welcome IVR message is configured, callers experience silence during the overflow timer period.

Contributing Factor: PSTN carriers typically disconnect calls that remain silent for approximately 20 seconds, which is shorter than the typical call queue overflow timer of 24 seconds. This causes calls to disconnect before overflow processing can complete.

Configuration Gap: The default call queue configuration allows calls to wait in queue during the overflow timer period, but without audio feedback (welcome message), this creates a poor caller experience and technical issues with PSTN call handling.

Related Content

- Configure Call Queue - Webex Help Center
- Cisco Technical Support & Downloads