Configure Multicast Paging for MPP 9841/9851 Phones in Webex Calling

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Issue

Multicast paging audio from Informacast Fusion (on-premises) was not being received or played on Cisco MPP 9841 and 9851 phones registered to Webex Calling. When paging was sent to the device group, IP speakers on the same VLAN successfully received and played the multicast audio, but the MPP phones showed no audio or visual indication during paging attempts.

During troubleshooting, specific errors were identified in the phone logs indicating XML tag update failures for the multicast paging group configuration:

```
ERROR: xml tag update failed, Group 1 Paging Script, err:-1001, attempted value: 239.0.1.117:24000
```

Analysis of the Problem Report Tool (PRT) data revealed while the <Paging_Serv> parameter was set to **Yes**, all paging group scripts (<Group_1_Paging_Script> through <Group_10_Paging_Script>) were completely empty in the phone's local configuration. This resulted in Multicase_Rx_Pkts: 0 and no active page status, as the phone did not know which multicast IP/port to listen to.

Environment

- Cisco MPP 9841 and 9851 phones
- Webex Calling platform
- Informacast Fusion (on-premises)
- Multicast paging configuration using device groups
- IP speakers on the same VLAN (working correctly)
- Multicast routing active between Informacast server and phone VLAN

Resolution

The issue was resolved by properly configuring the multicast paging group script in the Webex Calling Control Hub device configuration. These steps were taken:

Step 1: Configure Multicast Paging Group Script

Update the multicast paging configuration using the proper pggrp string format. The configuration string must be in this exact syntax:

```
pggrp=<multicast-address>:<port>;name=group_name;num=multicast_number;listen=boolean_value;pri=priority
```

Example configuration applied:

```
pggrp=239.0.1.117:24000;name=Group_1;num=17819;listen=yes;pri=3
```

Step 2: Key Configuration Parameters

Ensure these parameters are correctly configured:

- **Multicast IP Address and Port:** Must be identical for every phone within the specific group to ensure reception
- **num parameter:** The extension/number dialed to initiate paging (enter without parentheses)
- **pri parameter:** Priority level where 0 allows paging to take precedence over active calls, levels 1-3 offer varying degrees of audio mixing or alerts
- **codec parameter:** If not specified, the system defaults to G711u

Step 3: Apply Configuration and Reboot

After updating the multicast configuration in Control Hub:

1. Ensure the complete pggrp string is entered in the Configuration Value field
2. Reboot the affected MPP devices to synchronize the configuration
3. Verify the paging group parameters are properly populated in the phone's XML configuration

Step 4: Verification

After the configuration update and device reboot, verify that:

- Paging group notifications function correctly across all devices
- The phone sends IGMP Membership Reports to join the multicast group
- Multicast packets are received and processed by the MPP phones
- Audio notifications are successfully delivered during paging attempts

Cause

The root cause was identified as an issue with the device profile/template push from Webex Calling Control Hub to the MPP 9841/9851 phones. The multicast paging group details were not properly populated into the phone's XML configuration file, resulting in empty paging group scripts. Without the multicast IP address and port configuration, the phones did not join the appropriate multicast groups or process incoming paging streams.

The XML tag update failures (err:-1001) indicated the Control Hub was attempting to push the multicast configuration, but the phones did not properly process and store these parameters in their local configuration.

Related Content

- Configure 9800 Series and 8875 Phones on Control Hub
- Cisco Technical Support & Downloads