Troubleshoot Webex Calling Phone Display Flickering During WC Migration

Contents

Issue

During a migration to Webex Calling, Cisco 8861 phones experienced intermittent display flickering after successful migration and registration. The affected phones were properly registered to Webex Calling, showed as online, and were fully functional for making and receiving calls. However, the screen flickering began within seconds of operation and persisted even after full phone reboots. Approximately 20% of the 600 deployed Cisco 8861 phones at the deployment site were affected by this issue. The flickering was not observed on any other phone models in the deployment.

Environment

- Cisco 8861 IP phones running firmware version 12.0.7 SR5
- Webex Calling migration from the legacy phone system
- Affected phones manufactured in July 2022
- Hardware Version V43 with VID V18 identified as primary affected revision
- Phones connected in daisy-chain configuration providing network connectivity to desktop computers

Resolution

The issue was resolved through a combination of hardware replacement and power cycling procedures:

Hardware Replacement Solution

Step 1: Identify Affected Phones by Hardware Revision

Engineering confirmed phones with Hardware Version V43 and VID V18 were primarily affected. A small fraction of phones with these specifications can experience the flickering behavior.

Step 2: Order and Deploy Replacement Phones

Replacement Cisco 8861 phones were shipped to minimize operational impact. The replacement phones were provisioned with MAC addresses shared in advance to allow plug-and-play swapping.

Power Cycling Workaround

For phones that cannot be immediately replaced, a power cycling procedure was implemented:

Step 1: Extended Power-off Testing

Engineering recommended powering off affected phones for extended periods to resolve the flickering. Testing showed that phones powered off for approximately 30 hours showed improvement in screen flicker behavior.

Step 2: Staggered Power-off Intervals

To minimize operational disruption, phones were divided into groups with different power-off durations:

- Group 1: Power off for 6 hours
- Group 2: Power off for 12 hours
- Group 3: Power off for 24 hours
- Group 4: Power off for 48 hours

Step 3: Validation and Monitoring

After the power cycling procedure, phones were monitored for flickering behavior. Initial testing showed that phones powered off for approximately 30 hours no longer exhibited screen flickering when powered back on.

Cause

Engineering analysis identified this as a hardware-related issue affecting specific hardware revisions,

primarily Hardware Version V43 with VID V18. The issue is suspected to be related to display component fatigue, as the Cisco 8861 has been on the market for more than 10 years. The problem is not limited to Webex Calling firmware, as similar flickering behavior has been observed with CUCM firmware on the same hardware revisions.

The root cause appears to be hardware failure rather than a software or configuration issue.

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