Intelligent Proximity for Content Sharing

Quick Guide for Administrators

Introduction

Intelligent Proximity for Meeting Rooms allows you to see, control and capture content from a meeting room, directly on your own device. The feature includes:

- Easy ad hoc pairing (using ultrasound)
- See content on device & zoom in on details
- Go back in content
- Take snapshots of content
- Simple call control.

Network Considerations

Network Topology

The mobile device needs to be on the same network as the TP endpoint (IP route from BYOD to endpoint, allowing traffic on HTTPS/443). A user could be on mobile data network (3G/4G/LTE) as long as there is a VPN connection back to the enterprise and there is a route to the endpoint IP from the VPN concentrator. The endpoint has to be routable on IPv4 (the ultrasound token exchange won't support IPv6 addresses, but the mobile device could have a IPv6 address as long as it can connect to the IPv4 addressable endpoint)

Scalability

Simultaneous users: The solution is using the web server part of the endpoint. This limits the maximum number of simultaneous connections. The number depends on the capabilities of the codec. Currently there is no end user UI in the client to limit the number of simultaneous users. This will be added in a future release.

Bandwidth use: The current model captures and transfers a snapshot every few seconds to all connected devices, regardless of the content shared. This results in about 1 Mbps per user that receives content. A future SW update will implement picture change detection on the codec, allowing us to only send an image to the mobile device once the content is updated. For typical slide sharing, this will dramatically reduce the bandwidth consumption–up to 97% reduction!

Security Considerations

Audio pairing makes it easy to pair and transparent to the end user. The audio being used for pairing is similar to speech in propagation. If you can hear speech from a room (open door/window etc), your mobile device could likely pick up the audio pairing signal.
When a device pairs with a system, a notification will be displayed on-screen on the TP endpoint.

The audio encodes a secret token changing every 3 minutess. If the mobile client leaves the room (i.e. unable to hear any audio), it gets disconnected.

Media sent between mobile device and endpoint is secure. Media will only flow on the local network between the mobile device and endpoint. Media is sent over HTTPS between the endpoint and the mobile device.

Risk of Eavesdropping

A user passing by a meeting room with an open door could possibly pair with the system and thus see content displayed in the room. For security reasons you may want to keep the door shut at all times.

Users in the room will see on-screen notifications about paired devices. The display name is taken from the device name on iOS and is thus not authenticated (easy to change). This could present security challenges in some situations.

For security focused customers, we recommend waiting to deploy in scale until the end-user control is implemented (late 2014).

D1509801 Intelligent Proximity, Quick Guide for Administrators
Produced: April 2014 for selected products
All contents © 2014
Cisco Systems, Inc. All rights reserved.

Requirements

- Mobile device running iOS 7 or later, with the “Cisco Proximity” app installed (available for free in the App Store).
- Cisco Collaboration Endpoint SX10[1], SX20, SX80, MX200 G2, MX300 G2 running TC7.1 or later
- Cisco Collaboration Endpoint MX700 and MX800 running TC7.1.1 or later.

Configuration

Using the Collaboration Endpoint web interface:

Go to *Configuration* -> *System Configuration* -> type “BYOD”in search field) and set “Mode” value to “On”:

Using the Command Line:

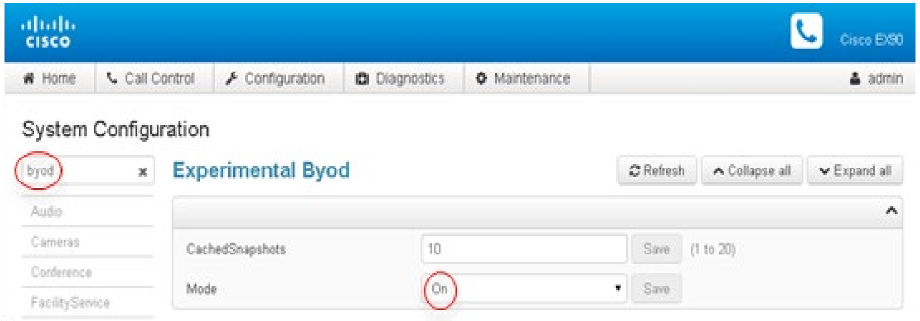
xConfiguration Experimental Byod Mode: <Off/On>

Additional Command Line parameters:
xConfiguration Experimental Byod CachedSnapshots: <1..20>

xConfiguration Experimental AudioPair DemoMode: <Off/On>

xConfiguration Experimental AudioPair Volume: <0..100>

Byod CachedSnapshots should be left at its default value (10).



System Configuration

byod

Experimental Byod

CachedSnapshots 10 (1 to 20)

Mode On

DemoMode and AudioPair Volume can be used if facing pairing difficulties caused when using external amp/speakers and/or you find yourself in a challenging environment with other high frequency sound sources (events/show floor etc.).

DemoMode value “On” will disable automatic adjustment of the ultrasound pairing volume, leaving the AudioPair Volume parameter for manual setting.

AudioPair Volume = “100” is max.

Note! When using external amp/speakers, value “100” may be too high and cause clipping. Reduce the value by increments of “10” until the clipping disappears.

Provisioning

Provisioning of these experimental settings is currently not supported. Provisioning is planned for the official release late 2014.

Troubleshooting

For updated troubleshooting tips, please refer to https://supportforums.cisco.com/community/12156681/cisco-proximity

[1] SX10 has a limited experimental feature set: supports endpoint control but not content sharing (to be added in a future TC-release).

D1509801 Intelligent Proximity, Quick Guide for Administrators
Produced: April 2014 for selected products
All contents © 2014
Cisco Systems, Inc. All rights reserved.