Cisco Unified IP Conference Phone 8831

Introduction

This deployment guide outlines the best practices for considering a conference room environment with the Cisco® Unified IP Conference Phone 8831.

This guide is intended primarily for site planning of the Cisco Unified IP Conference Phone 8831. Installers, network administrators, and facility maintenance personnel may also find this document useful.

Obtaining Documentation and Support, and Developing Security Guidelines

For information about obtaining documentation, submitting a service request, and gathering additional information, please refer to the monthly “What’s New in Cisco Product Documentation” publication, which also lists all new and revised Cisco technical documentation, at: http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

Related Documentation

For a complete list of documents for the Cisco Unified IP Conference Phone 8831, please visit the Cisco support site located at: http://www.cisco.com/cisco/web/support/index.html.

Overview of Cisco Unified IP Conference Phone 8831

The Cisco Unified IP Conference Phone 8831 enhances people-centric communications, combining superior high definition (HD) audio performance and 360-degree coverage for conference rooms and executive offices. It provides an audiophile sound experience with a full-duplex two-way wideband (G.722) audio hands-free speaker (Figure 1).

Figure 1. Cisco Unified IP Conference Phone 8831 with Speakers and Display Control Unit

The Cisco Unified IP Conference Phone 8831 is a simple, scalable solution that meets the challenges of most conference rooms. It provides flexible deployment expansion by using optional extension microphones that can be wired or wireless (Digital Equipment Cordless Telephone [DECT]) and has an optional daisy-chain configuration of two base speaker units.

As a base kit, the Cisco Unified IP Conference Phone 8831 includes a two-element speaker within the base unit, as well as four internal microphones located within the corners of the unit. Also included is a corded display control unit. Depending on your country location, there are six versions of the 8831 base kit (for compliance to country-specific wireless spectrums).

Table 1. Lists Available Optional 8831 Kits

Optional Kit	Contents	Supported Configurations
Cisco 8831 Wired Microphone Kit	Includes two wired microphones	Two wired microphones installed to the primary speaker base unit If a secondary (daisy-chain) base kit is configured, then one wired microphone is installed to the primary base and the other wired microphone is installed to the secondary (daisy-chain) base
Cisco 8831 Wireless Microphone Kit	Includes two wireless microphones and charger tray	Two wireless microphones installed to the primary speaker base unit **Note:** Wired and wireless kits cannot be installed together
Secondary (daisy-chain) Base Kit	Base unit with required cabling	Only one secondary base kit can be installed per 8831 primary base unit

For more detailed specifications, please refer to the data sheet for the Cisco Unified IP Conference Phone 8831 at: http://www.cisco.com/c/en/us/products/collateral/collaboration-endpoints/unified-ip-phone-8800-series/data_sheet_c78-726887.html.

Room Considerations for the Cisco Unified IP Conference Phone 8831

Table 2 lists the maximum recommended room sizes for optimal 8831 audio coverage. Every conference room has different acoustic characteristics. Conference rooms with high-reverberation acoustics will drastically decrease these numbers. Acoustic reverberation is caused by hard surfaces such as glass walls and hard-surface flooring. If you suspect that your conference room has high-reverberation acoustics, then you must test with the 8831 and optional wired or wireless microphone kits and/or secondary base kit to determine maximum optimal audio coverage. For best results, testing should be done by adding and subtracting the wired or wireless microphone kit and/or the secondary base kit. The recommended maximum room sizes in Table 2 assume a rectangular room and a rectangular table located in the middle with a maximum conference room ceiling height of 10 feet.

Table 2. Maximum Recommended Room Sizes

Supported Configurations	Recommended Maximum Room Size for Optimal Audio Performance	Power Considerations
Cisco 8831 primary base and display control unit	20 x 20 ft 400 square feet	IEEE 802.3af Power over Ethernet (PoE) or Cisco IP Phone Power Cube
Cisco 8831 primary base and display control unit with two wired microphones (one wired microphone kit)	20 x 34 ft 680 square feet **Note:** The length of the cable for each wired microphone is 7 feet; therefore, the assumption for this maximum coverage area is with the wired extension microphones located 7 feet away from the base. Extension microphones can be located anywhere from 3 to 7 feet away from the base	IEEE 802.3af PoE or Cisco Power Cube

Supported Configurations	Recommended Maximum Room Size for Optimal Audio Performance	Power Considerations
8831 primary base and display control unit with two wireless microphones (one wireless microphone kit)	20 x 40 ft 800 square feet **Note:** In order to have full room coverage, meaning a talker's voice could be picked up from anywhere within a 20- by 40-foot conference room, the assumption is that each wireless extension microphone would be placed a maximum 10 feet away from the base However, if full talker voice does not need to be evenly covered across a conference room, wireless microphones can be placed as far away as 100 feet from the base. The limiting factor is that the person using the wireless microphone must be able to hear the sound out of the 8831 speaker base in order to have an effective conference call	The primary base and display control unit can be powered with IEEE 802.3af PoE or by a Cisco IP Phone Power Cube The charging tray of the wireless microphone kit requires commercial AC power. Country power adapters are available. The AC power cord is 10 feet long
8831 primary base and display control unit with a secondary base	20 x 36 feet 720 square feet **Note:** The length of the cable between the base units is 18 feet For the recommended maximum room coverage for this configuration, the maximum distance between the two base units is 15 feet. The secondary base provides additional microphones and more robust sound within the conference room The minimum distance between the primary and secondary base units is 8 feet	The primary base and display control unit can be powered with IEEE 802.3af PoE or by a Cisco IP Phone Power Cube The secondary base kit requires commercial AC power. Country power adapters are available. The AC power cord is 10 feet long
8831 primary base and display control unit with a secondary base and two wired microphones	20 x 50 feet 1000 square feet **Note:** For the recommended maximum room coverage for this configuration, the maximum distance between the two base units is 15 feet, and each base unit has one wired microphone installed 7 feet from the base	The primary base and display control unit can be powered with IEEE 802.3af PoE or by a Cisco IP Phone Power Cube The secondary base kit requires commercial AC power. Country power adapters are available. The AC power cord is 10 feet long
8831 primary base and display control unit with a secondary base and two wireless microphones	20 x 57 feet 1140 square feet **Note:** For the recommended maximum room coverage for this configuration, the maximum distance between the two base units is 15 feet, and each base unit has one wireless microphone installed 10 feet from the base However, if full talker voice does not need to be evenly covered across a conference room, wireless microphones can be placed as far away as 100 feet from the base. The limiting factor is that the person using the wireless microphone must be able to hear the sound from the 8831 speaker base	The primary base and display control unit can be powered with IEEE 802.3af PoE or by a Cisco IP Phone Power Cube The secondary base and wireless microphone kits require commercial AC power. Country power adapters are available. The AC power cords are 10 feet long

Room Diagram Examples for Optional Coverage

Figure 2 shows the maximum optimal coverage of a 20- by 20-foot room.

Figure 2. Maximum Optimal Coverage of 20- by 20-Foot Room with 8831 Primary Base and Display Control Unit

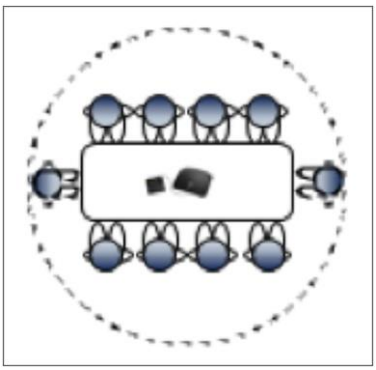


Figure 3 shows the maximum optimal coverage of a 20- by 34-foot room.

Figure 3. Maximum Optimal Coverage of 20- by 34-Foot Room with 8831 Primary Base and Display Control Unit with Wired Microphone Kit

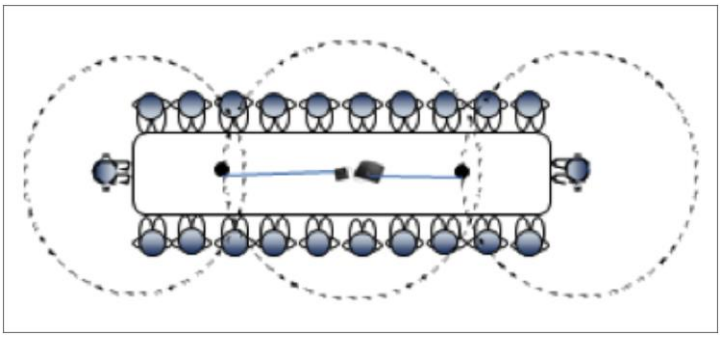


Figure 4 shows maximum optimal coverage of a 20- by 40-foot rectangular room.

Figure 4. Maximum Optimal Coverage of 20- by 40-Foot Rectangular Room with 8831 Primary Base and Display Control Unit with Wireless Microphone Kit

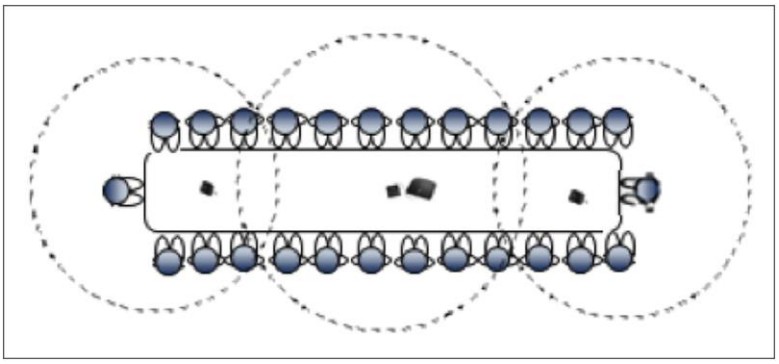


Figure 5 shows coverage example of U-shaped table configuration.

Figure 5. Coverage Example of U-Shaped Table Configuration with 8831 Primary Base and Display Control Unit with Wireless Microphone Kit

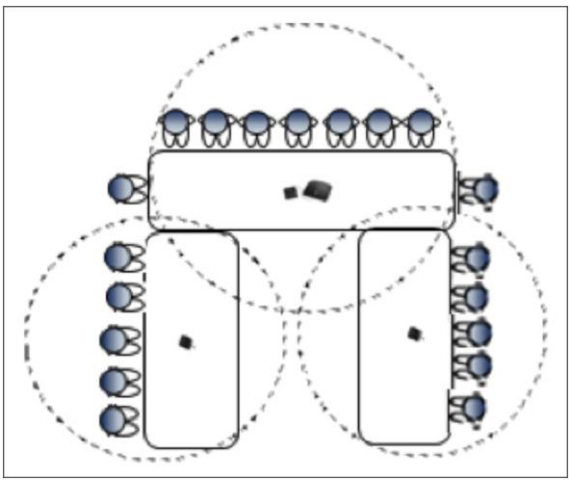


Figure 6 shows maximum optimal coverage of a 20- by 36-foot room.

Figure 6. Maximum Optimal Coverage of 20- by 36-Foot Room with 8831 Primary Base and Display Control Unit with Secondary Base

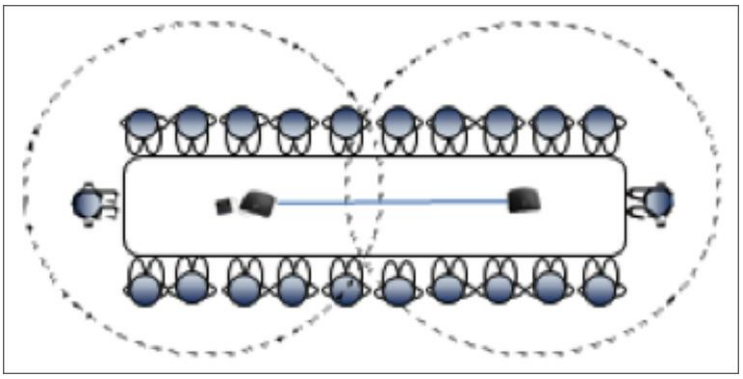


Figure 7 shows maximum optimal coverage of a 20- by 50-foot conference room.

Figure 7. Maximum Optimal Coverage of 20- by 50-Foot Conference Room with 8831 Primary Base with Display Control Unit, Secondary Base, and Wired Microphone Kit

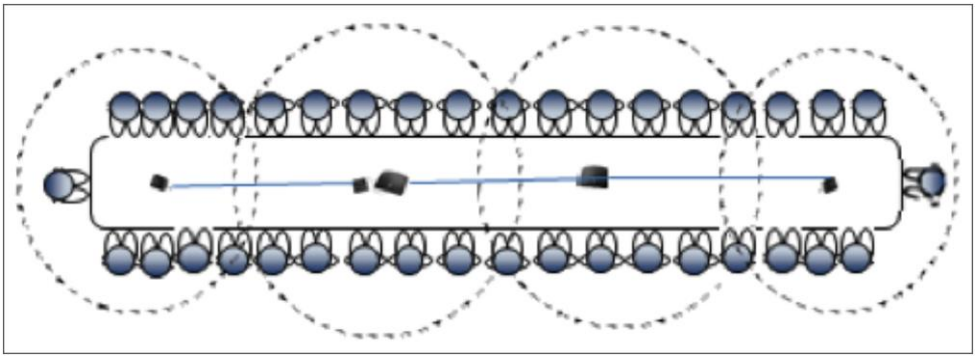
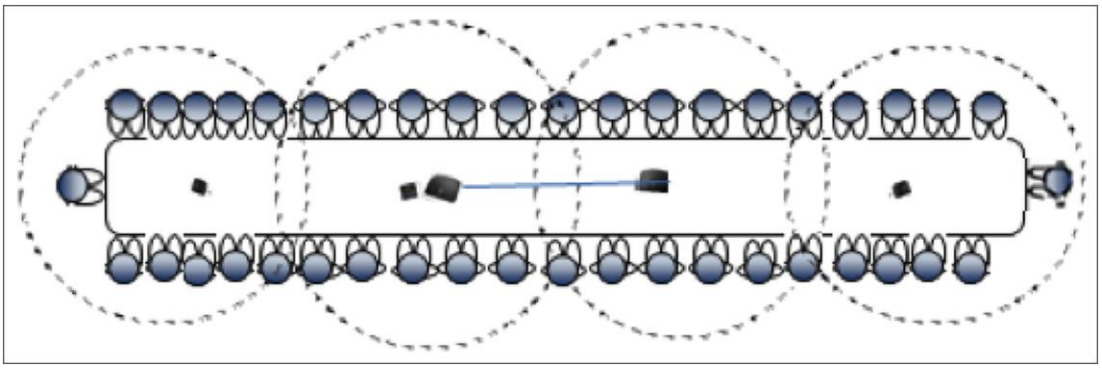


Figure 8 shows maximum optimal coverage of a 20- by 57-foot conference room.

Figure 8. Maximum Optimal Coverage of 20- by 57-Foot Conference Room with 8831 Primary Base with Display Control Unit, Secondary Base, and Wireless Microphone Kit



Americas Headquarters
Cisco Systems, Inc.
San Jose, CA

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
Singapore

Europe Headquarters
Cisco Systems International BV Amsterdam,
The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

Printed in USA C07-734247-00 04/15