

# The Cisco Room Kit Mini

## A Collaboration Device to Huddle Around

The Cisco Webex Room Kit Mini is the newest room solution for video collaboration, from Cisco's long history in video collaboration with room system solutions and cloud-delivered conferencing services. ("Mini" indicates that the system is designed to address the fastest-growing segment, video-enabled smaller meeting rooms — spaces for five or fewer people.) Despite its name, the Room Kit Mini packs maximum versatility. It can be used with premises-based solutions and/or cloud-delivered services from Cisco as well as other providers including Microsoft, Zoom, and Blue Jeans.

The market for video-enabled room solutions is experiencing rapid growth for several reasons. First, the cost barriers of video collaboration have largely disappeared. Video and meeting services are now often included in enterprise licensing programs, and the cost of networking has also dropped significantly. As a result, there are effectively no usage costs associated with video collaboration. The final piece of the cost equation is room equipment, which has dropped as well. The Room Kit Mini, at \$2,899, is a small fraction of the cost of prior-generation equipment.

At the same time, there's been increasing demand for higher productivity, especially in meetings, which for many professionals consume a significant portion of the day. Thus, demand is growing for video-enabled meetings, coming in part from the popularity of video services in consumer apps and the rise of distributed work teams.

Additionally, after several years of digital transformation initiatives, distributed meetings are much more effective than before. Instead of meeting to discuss tangible things such as mock-ups,



original artwork, or prototypes, modern meetings are more likely to discuss topics that can be rendered on a screen — effectively ending the "remote tax" that has limited participation and contribution.

Video meetings are not new, but earlier costs caused enterprises to

limit them. Suddenly, organizations are looking for solutions and strategies to video-enable smaller rooms, sometimes referred to as “huddle rooms.” These spaces can be small conference rooms or even public common areas such as break rooms. But don’t make the mistake of trivializing the needs of smaller rooms. The issues are largely the same regardless of room size.

Enterprise organizations are advised to develop a strategy that addresses enterprise collaboration and includes boardrooms, mobile devices, and everything in between. Consistency simplifies the experience, reduces costs, and increases adoption.

## Huddle Room Solutions

While desktop users may be able to use different video services throughout the day, room systems introduce a number of complexities that require consideration. Room systems need to address a variety of uses, a range of user skills and familiarity, security requirements, and more. There are two common approaches:

**1. An enterprise-wide solution** makes the room system a dedicated node on an enterprise-wide solution. The advantage is a consistent experience in both scheduling and the conferencing experience, including starting, stopping, and various in-conference features such as record-

ing. These systems have their own user interface designed for shared use.

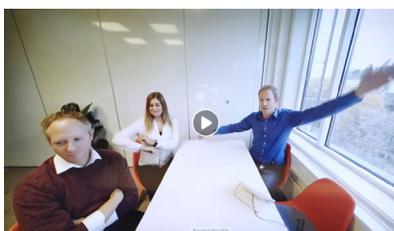
**2. The USB model** equips the room with shared meeting hardware that can connect to a user’s laptop. It offers the advantage of a familiar user interface, as it’s the same software that users likely have on their desktop. However, this model requires users to supply a laptop. That may sound trivial to some, but keep in mind the variation in laptops. Laptops often have different and incompatible USB ports, display ports, and power adapters — ask anyone who’s frantically searched for a USB-C cable. Also, if the user who supplied the laptop has to leave early, the entire meeting may be forced to adjourn.

The Room Kit Mini was likely the first enterprise-wide solution that can also act as a USB solution. It certainly is the first model to do so from Cisco. It can seamlessly and securely tie into the Cisco meeting solution, such as Webex, as well as room calendaring systems, such as Outlook/Exchange — and be available as a USB peripheral for third-party meetings on a user-supplied laptop.

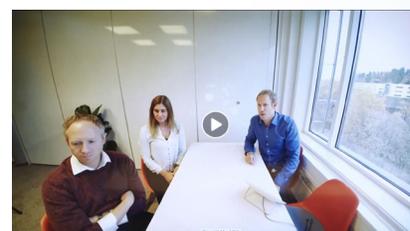
The Room Kit Mini is also optimized for smaller rooms. The most obvious of its optimizations is its lens. Smaller huddle rooms require a larger field of view or FOV. Small spaces require wider lenses because the participants are closer to the camera.



Fisheye



Corrected



Optimized



The Room Kit Mini has a 120-degree FOV, which is ideal for capturing two to five people from a short distance.

However, such a wide lens introduces a fisheye effect. Cisco corrects this with advanced image processing software. The Room Kit Mini monitors picture quality and eliminates the contorted images common with software corrections. Similar to how it performs automatic cropping (or auto-framing), it also monitors for visual effects and optimizes the visual effects.

## The Cisco Webex Room Kit Mini

The Room Kit Mini is an all-in-one collaboration device that, combined with a display, makes a complete meeting room solution. Inside the package are two major components: the Room Kit Mini itself, presented as a soundbar, and the Touch 10 control unit. Also in the box are mounting hardware, cables, a power supply, and an installation guide.

The Room Kit Mini joins the portfolio between the Webex Share and the existing Room Kits, the Room Kit and Room Kit Plus. Like Cisco's other Room Kits, the Room Kit Mini includes the hardware and software necessary to integrate with Cisco Collaboration meeting solutions. It does not include a display, but can be connected to most televisions and displays. The Room Kit Mini supports the expected features and capabilities of Cisco room solutions, including One Button to Join

## ABOUT THE WEBEX BRAND

The Webex story began in 1995. Back then, broadband networks were limited, and cameras were still low-resolution, so the initial value was more about content sharing than video. The brand became tightly associated with online meetings — so tightly that “Webex” was often used as a verb.

Cisco acquired Webex in 2007 as a complementary solution to its premises-based telepresence solutions. As networks, cameras, and displays improved, the capabilities blurred between premises-based and cloud-delivered services. Webex is now Cisco's brand for cloud-delivered collaboration solutions that include meetings (audio, content, and/or video), messaging (Webex Meetings), telephony (Webex Calling), contact center (Webex Contact Center), and some hardware such as the Webex Board.

Today, all Webex-branded solutions are being strengthened by Cognitive Collaboration, which is Cisco's family of contextual and intelligence features designed to increase productivity and collaboration.

(OBTJ), wireless proximity support, Webex Assistant, and more. It offers the same level of security as Cisco's other room systems, and it is the newest and lowest-priced room solution from Cisco.

One might assume that the display is the most important component of a video system, but it's not. None of Cisco's Room Kit solutions (as well as the Webex Share) include a display. This gives the customer more flexibility in selecting or reusing the appropriate television, monitor, or projector. The Room Kit Mini does provide 4K video output if available, but it connects to most HDMI display inputs. It also has out-of-box integrations with several screen manufacturers, including LG, Samsung, and NEC. CEC streamlines the implementation, and the Room Kit Mini can self-configure the screen. Cisco's MX Series video room solutions include integrated displays for a more integrated and immersive experience.

With the Room Kit Mini, Cisco now offers a consistent Cisco meeting experience in any sized meeting room. However, unlike other systems, the Room Kit Mini's audio and video components are also available via a single USB connection for most third-party meeting apps such as Microsoft Teams, Zoom, and BlueJeans. Laptop cameras and speakers are OK for a single user but generally ineffective or frustrating for small groups.

The Room Kit Mini solves the fundamental dilemma of having to choose between a high-quality

integrated solution and a peripheral. It supports both as the situation dictates.

### The Soundbar

The Room Kit Mini is effectively an all-in-one device that houses the processor and codec, speakers, microphones, and high-resolution camera. This four-pound device is simple and elegant, with a white finish and textile gray cover. It measures 19.7" wide by 3.2" high and is 3" deep. The ports are on the display side, not the top or bottom. The ports always face the display regardless if it is mounted above it or below. Cisco thought to sense which way is up, so the Room Kit Mini automatically adjusts the camera.

The lone visible feature that separates the Room Kit from other speakerbars is the camera on the front. It's a 4K UltraHD (4K up to 60 fps) fixed camera. It has 2x digital zoom, an 8MP image sensor, and 120-degree field of view. Where it stands out, though, is its advanced software that supports automatic framing and face detection, which allows the camera to automatically frame in-room participants. Face detection also enables analytics with information such as the number of participants in the room.

As with all Webex cameras, the Room Kit Mini transmits a maximum resolution of 1080p/60 fps. However, it uses a 4K ultra-high-resolution camera. This allows the Room Kit Mini to digitally



enhance the image, such as with digital zoom, without “loss” (maintains 1080p resolution). Content share is supported at 4k resolution, though at only 5 fps. This ability is ideal for detailed content such as X-rays. These resolutions are among the highest supported for enterprise video.

The Room Kit Mini has the following ports: two USB ports (type C and A), an HDMI input for content sharing, an HDMI output for the in-room display, and two RJ-45 ports — one for the network and the other for the Touch 10 control unit. The USB-C port is to connect the Room Kit Mini to a PC as a USB peripheral. The USB-A port is currently limited to optional specialized devices. There is also a power input and a micro USB port for maintenance. Not all of these ports are necessary, as the Room Kit Mini can use Wi-Fi for connectivity and content sharing.



When it comes to audio, all-in-one designs are very difficult, because the speakers are essentially incompatible with cameras and microphones. Speaker vibrations can shake the camera, and speakers being close to

microphones cause feedback loops. The solutions and approaches to these conflicts vary by vendor, but may include underpowered speakers and deaf microphones. Cisco put considerable effort into an isolated physical design and software-enhanced processing. The speakers include a full-range speaker with dual woofers — quite sufficient for smaller rooms.

The beamforming microphone array consists of a forward-facing microphone on the front of the Room Kit Mini and three along the edge that work together to form a cone-shaped directional area that aligns with its viewing angle (120 degrees). The resulting acoustic zone includes in-camera participants and blocks off-screen background sounds.

Additionally, the Room Kit Mini includes high-quality audio processing such as automatic gain control, automatic noise reduction, and active lip synchronization that are designed to improve the overall

## CISCO INTELLIGENT PROXIMITY

Cisco was the first company to introduce the concept of proximity-based pairing in its meeting room devices. Cisco Intelligent Proximity uses ultrasonic frequencies so that the room system can detect nearby Webex mobile clients and make the room system interface more intuitive. A user can easily start a meeting on their client, even one that wasn’t necessarily scheduled in that room. Content can also be shared to or from a mobile device. For example, shared content on the room display can also be viewed on a participant’s mobile phone or laptop. Imagine a meeting being interrupted because another group needed the room. The users can simply walk into another room, intelligently pair, and resume the meeting without rebooking and sending out a new reservation. Intelligent Proximity is supported on most Cisco Webex Room Systems if enabled.

meeting experience. These features are especially important in an all-in-one box with integrated microphones and speakers, because feedback and echo can otherwise be problematic.

A key feature of the all-in-one soundbar is that it puts the audio near the display. This eliminates a common distraction with tabletop speakers where the audio comes from a different direction than the person/people talking.



### The Touch 10 Control Unit

The soundbar has no user controls. Instead, all control functions are accessed from the Cisco Touch 10 control unit, the same control unit used across Cisco’s video room portfolio. This wired, touchscreen device can be positioned on or near the meeting table. It measures 10” wide x 7.5” high and 1” deep. A single cat-5 connection to the Room Kit Mini provides connectivity and power. Through the control unit, users access all meeting functions, including OBJT, end meeting, mute, and content-sharing.

What’s particularly important here is that both the hardware and the user interface (UI) are consistent across the portfolio, enabling familiarity regardless of the room size. However, the Touch 10 can also be customized for specific rooms, accessories, and macros. This enables users to adapt and customize the user interface, but at the same time makes the user experience scalable and consistent.

### Management

The Room Kit Mini can be managed as a standalone device from a browser using its web address. However, most enterprises will likely use enterprise-wide tools such as the Cisco Webex

Control Hub or the Cisco TelePresence Management Suite. These tools provide visibility to all Cisco room systems. Administrators can manage integrations, security, and software versions, as well as personalize the

systems with logos and instructions. Administrators can also add widgets to control third-party devices such as lights and blinds.

### The Webex Control Hub

The Webex Control Hub is the management portal that enables administrators to provision and manage Cisco Webex services and devices.

- **User Management:** The Identity and Access Management service provides the ability to provision, authenticate, and authorize users to the service and the appropriate spaces.
- **Device Management:** The Control Hub simplifies device management and provisioning. It also provides single-pane-of-glass visibility into the details and states of connected devices as well as centralized upgrades.
- **Enterprise Content Management:** In addition to its native file sharing and storage, Cisco Webex Control Hub also enables centralized configuration for content storage services from Microsoft, Google, and others.

- **Analytics:** Cisco Webex Control Hub provides usage trends and insights to assist with adoption and ongoing monitoring. Integrated advanced analytics provide granular details on how services are being used across the organization. The advanced analytics of the Room Kit Mini and other Webex systems can count users per meeting — regardless if a meeting is hosted on Webex or hosted at all. The optional Pro Pack for Webex Control Hub provides advanced reporting capabilities and extends usage data storage from 90 days to one year.

The Webex Control Hub also features advanced APIs for integration with other systems. For example, Vyopta Room Insights combines Webex data with scheduling, location, and HR systems for broader insights.

## Cisco's Cognitive Collaboration



Cognitive Collaboration is not a product or suite, but an evolution of integrated collaboration experiences that build intelligence and context awareness into every aspect of the user experience. As a result, its features, capabilities, and technologies will evolve over time.

Cognitive Collaboration is now a persistent element across the entire collaboration portfolio: software, hardware, and services. With its implementation of Cognitive Collaboration experiences, Cisco is signaling a portfolio-wide commitment to AI technologies that facilitate collaboration. Keep in mind that Cisco has the broadest collaboration portfolio on the market that includes:

- Meeting hardware, software, and services
- A global cloud of communications services
- Strong integrations into adjacent and popular ecosystems
- Contact center solutions

## KEY TAKEAWAYS

- The Room Kit Mini is the newest room collaboration system from Cisco. Like the other room kits, it does not include a display, but does include camera, speakers, microphones, and the computer processor.
- The Room Kit Mini can connect to any television or display via an HDMI connection. The display will ideally support 4K video.
- The Room Kit Mini is designed for smaller rooms. It's ideal for three to five participants.
- The Room Kit Mini is essentially two components: a single soundbar that contains the processor, camera, speakers, and microphones, and a wired touchscreen controller called the Touch 10.
- The Room Kit Mini is the first room solution from Cisco that can be used as a USB peripheral. The audio and visual components of the Room Kit Mini can be available to other applications via a single USB connection.
- The Room Kit Mini is small and relatively inexpensive but does not skimp on features. It supports the full suite of Cisco's Cognitive Collaboration capabilities found on other room kits and complete collaboration endpoints.

Cisco in 2019 introduced a framework of Cognitive Collaboration capabilities that includes:

Meetings, Teams, and Devices:

- People Insights
- Webex Assistant
- Bot framework
- Facial detection and recognition
- Noise detection and suppression
- Speaker tracking
- Auto framing
- Whiteboard de-skew
- Metadata (people count, etc.)

Contact Center:

- Customer Insights
- Customer Journey Analyzer
- Cisco Answers and Customer Virtual Assistant powered by Google

## The Cisco Meetings Vision

The Room Kit Mini expands what was already the industry’s broadest portfolio of meeting and collaboration solutions. Although optimized for small rooms and huddle spaces, it is not lacking in features and even doubles as a USB peripheral. The Room Kit Mini packs advanced collaboration capabilities and high-quality audio and video hardware into one small, well-designed package and is the first Cisco Webex device to support third-party meeting apps through a single USB connection. It is part of Cisco’s broader strategy to transform collaboration through experience and intelligence.



Cisco’s hardware and software work together to enable cognitive collaboration. This term refers to a broad range of features such as People Insights, speaker tracking, facial detection, Webex Assistant, intelligent views, and more. Webex Assistant makes it possible to perform common tasks via natural language (“OK Webex” before a command) making functions, such as starting a meeting, much more intuitive. Virtual nametags identify

the speakers in a meeting, and People Insights provides information that better familiarizes participants and identifies potential connections. These solutions improve team productivity and collaboration regardless if the teams are co-located or distributed.

However, the most powerful aspect of the solution can’t be found in any one product, but across the portfolio. Cisco offers equipment for any-sized room, software for premises-based solutions, and services for cloud-delivered and hybrid deployments. The products include the all-in-one Webex Board, the simple HDMI dongle (the Webex Share) and solutions options for meetings rooms of all sizes. All of these products offer a consistent user interface, and unified management. The collaboration portfolio also offers integrated solutions for calling, messaging, and other services.

This consistency across devices lowers administration costs, and also means that meetings start on time. Lack of UI familiarity is the most common reason why video-enabled meetings start late. It

can take several minutes for users to find the right settings for microphone and speakers or headset, camera options, and more.

The Room Kit Mini's USB capability acknowledges that the market is shifting toward cloud services (plural), as it's the first Cisco meeting room solution that works seamlessly with third-party meeting services. It offers the best of both worlds in that it's

fully integrated into Cisco's own collaborative solutions, yet its advanced capabilities and analytics are also available to a world of third-party applications. The Room Kit Mini is an ideal addition to Cisco's portfolio that addresses small rooms and huddle spaces. It also ends the mutually exclusive paradox of the past by acting as both an integrated video component and universal peripheral.



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