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# Allwave Demystifies **Soft codec platforms** for Enterprise



# Introduction

The introduction of the video conferencing system was a game changer for businesses around the globe. It became a cost effective way for companies to conduct business meetings there by reducing the travel expenses. This helped global offices and telecommuters to connect on a more personal level without the need for airline tickets or hotels. Since its introduction the video conferencing world has evolved and the features are almost limitless.

The way a video conferencing system works is the method in which the audio visual data is transferred, when audio visual data is transmitted it is encoded and when it is received hence the piece of software or hardware that communicates this data came to be known as the codec.

A codec that uses hardware for transmitting AV communication is known as the Hard codec and the ones that use software for AV communication is known as Soft Codec. When compared to a Soft Codec Platform the Hard Codec utilizes hardware based solutions that typically involves more expensive equipment and cameras and subscription fees. The Software based solutions provided by the soft codec platforms are cost effective and help communicate and collaborate efficiently. It sounds simple enough but the technology is revolutionary.

The Pandemic forced the world to change the way we worked. People started working remotely from their home and had to learn how to use two years worth of technologies in two months. This led to Soft codec platforms gaining popularity among the workforce as it was cost effective and gave people the ability to conference from anywhere in the world.

The soft codec platforms aren't limited to any specific hardware as it can be used with a range of devices, including smartphones, tablets and laptops. If an organization relies on remote employees, soft codecs ensure they can still collaborate, even if they aren't anywhere close to a conference room. The popular Soft Codec platforms that encouraged remote employees to connect with their teams include MS Teams, Zoom, Webex, Skype, Gotomeetings etc.



## Zoom meeting

With the Zoom platform you can conduct virtual meetings, training seminars, webinars, etc. During Zoom meetings, users have access to screen share services and also simultaneously share messages and documents with each other through Zoom's chat tool. A basic plan with a Zoom meeting is free to use for unlimited time and offers unlimited meetings with a 40-minute time limit for each.

## Microsoft Teams

Microsoft Teams is a sub-feature of the Microsoft Office 365 platform. This sub-feature can hold meetings with up to 300 participants alongside access for guests, person-to-person and team video, phone calls, sharable files with 2 gigabytes per person, and 10 gigabytes per group, desktop sharing for easy collaboration, and file organization through coloration. This service is free with sign-up using an email address.

## Cisco WebEx

As with most virtual meeting platforms, Cisco WebEx offers its users a free option to use its service. The features of this platform include enhanced technology for audio and video delay and can display 25 feeds at the same time.

## Skype

An easy to use app that allows you to connect with a single person or a group of people. It is a well-known platform that many meeting participants most likely already have personal accounts for service use. Skype app comes with no long-distance costs but is prone to audio and visual display problems, buffering delays, and calls being dropped.

## GoToMeeting

This platform offers tools that include messaging between team members, dialogue transcriptions for video, and adjustable team settings. Using GoToMeeting, businesses can conduct meetings with up to 100 people, including participating and holding meetings using a smartphone.





# How the Enterprises chooses the right platform

The Pandemic has been a great catalyst in driving the increasing need for the use of virtual meeting platforms. Enterprises have started relying on these platforms to stay connected, exchange information, and work together in order to keep operations running smoothly and consistently during this uncertain time. So Choosing the right platform is important to drive the success of the company by ensuring a seamless collaboration.

Some of the reasons for the rise of soft codec platforms is compatibility, flexibility, security and cloud integration. This mode of communication has become an unavoidable part in the way the remote workforce communicate, so

how do Enterprises make sure that when the employees return they are comfortable and have access to the same platforms. In order to do so they have to create or modify their conference rooms to accommodate the relevant Soft codec platforms with the appropriate hardware support. Such as

- HD Conference room camera
- High Quality Conference room speaker
- Microphone
- Computer/ NUC/ Soft Client to run meetings
- Big screen displays
- Touch controller - to operate the VC







While adopting a software platform for the enterprise, Leaders have to choose the right soft codec platform to accommodate the comfortable user experience and ease of transition for the employees, that is where an AV integrator comes in. An Enterprise will require to modify its AV infrastructure to

create the best possible collaboration experience with regards to the soft codec platform used. Products such as Logitech Rally, Extron Media Port are some examples that help in building an excellent infrastructure for the ultimate experience.

## Logitech Rally

Logitech Rally offers an Ultra-HD imaging system, delivering brilliantly sharp video, outstanding color, and exceptional optical accuracy at resolutions up to 4K. The modular audio system brings crisp, clear audio and unmatched voice clarity to the table. Elegantly designed with premium finishes, thoughtful cable management, and modular audio, Rally integrates beautifully into any room design.

## Extron Media Port

As employees return to the office, organizations will need to adapt to an evolved situation: potential smaller meeting room capacities, new policies with regards to rules on social distancing and an increased need for video

conferencing. There are several ways that Extron can reduce users having to physically interact with AV systems, that includes Room Automation, Wireless Presentation and Control on BYOD devices with QR codes. The MediaPort includes DSP with EQ, filters, mixing, dynamics, and ducking. This allows it to serve as a complete soft codec interface, with the added flexibility of integrating into larger hardware codec or DSP systems. The Extron MediaPort enables versatile integration of conferencing computers into pro AV designs.

**Extron**®

**logitech** 

# What to Look for in a Soft Codec Platform?



## Insight:

Choosing a platform that has features that can accommodate future needs.



## Consistency:

Quality service and high-resolution visuals ensure that online meetings run smoothly which can lead to an increase in productivity for a business.



## Desktop Sharing:

An important aspect of team collaboration is not just being able to see fellow team members work, but having the ability to interact and edit the work in real-time.



## Video Conferencing:

This is the main feature that a virtual meeting platform must have in order for online meetings to take place



## Streamlined Instant Messaging:

Tools for communication between team members must be easy to use, can be used on various platforms, and can be synced with popular devices.



## User friendly:

It should be easy for a new user to operate without any complications.

Solutions like **MS Teams**, **Zoom** and **Cisco WebEx** are rolling out across colleges and corporate campuses to help people engage, learn, and collaborate. Zoom, for example, has more than 700,000 business customers, including half of the companies in the Fortune 50 list. With a surfeit of soft codecs available, it is wise to consider

technology that can be as future-proofed and scalable as mobile phone platforms. MS Teams, Zoom and Webex are some of the popular Soft codec platforms and are the most recommended when it comes to Enterprise Grade Video Conference Room Solutions.

# What are MS Teams / Zoom / Webex Rooms?



zoom

Cisco  
webex

MS Teams / Zoom / Webex Rooms are basically a physical conference room with the any of the soft codec softwares integrated with necessary hardware equipment (Camera, microphone, Speakers, Displays, Touch controller etc.) that can instantly turn your huddle room, meeting room, training room or any other room into a full-functional video conferencing room integrated with high-quality audio and video capabilities along with MS Teams / Zoom / Webex cloud platform. They enable you

to meet with anyone including remote participants on mobile, desktop or even other external conference systems.

Now the types of VC room systems can be classified mainly in three ways:

- Microsoft Teams Rooms (MTR)- MS/ Zoom Certified
- Microsoft Teams Collaboration Bars- MS / Zoom Certified
- Generic Conferencing Rooms / Bars- Not MS / Zoom Certified



# MS Teams Rooms(MTR)- MS Teams / ZOOM Certified

Microsoft introduced the next generation of Skype Room Systems, a center of room control with one-touch join, to add the best audio and video to your meetings. They started with one hardware partner and now works with six leading device manufacturers, to deliver the best quality experiences for both Skype for Business and Microsoft Teams meetings. They have recently announced and delivered several capabilities that enhance the Teams Meetings experience in meeting rooms:

- Proximity detection makes it easy to discover and add nearby, available Microsoft Teams Rooms to any meeting.
- Companion experiences with mobile, to join your devices in content-only mode.
- Support for dual screen rooms.

Microsoft Teams Rooms (MTR) are purpose built, native calling and meeting solutions delivering a complete Teams meeting experience, with high-definition audio and video, on Teams certified 1st and 3rd party hardware. Teams Rooms go beyond what can be done with Teams on personal devices by providing unique in-room capabilities, like one-touch join, content cameras to share physical whiteboards into the meeting in an intelligent way, and proximity features

like seamlessly transferring the room into a Teams meeting from your own personal device.<sup>10</sup>

MTR includes the following key components to deliver a great user experience:

- Touchscreen control panel
- Computer
- Microsoft Teams Rooms application
- Dock/extender
- Peripheral devices (camera, microphone, speaker)
- External screens (maximum of two)
- HDMI input



You can procure these components as pre-installed bundles from a number of vendors, or you can purchase the supported components individually. Microsoft Teams are Windows IOT based devices, available from Logitech, Yealink, Crestron, HP, Lenovo and Poly. MTR's come with an intel PC, Windows 10 in kiosk.

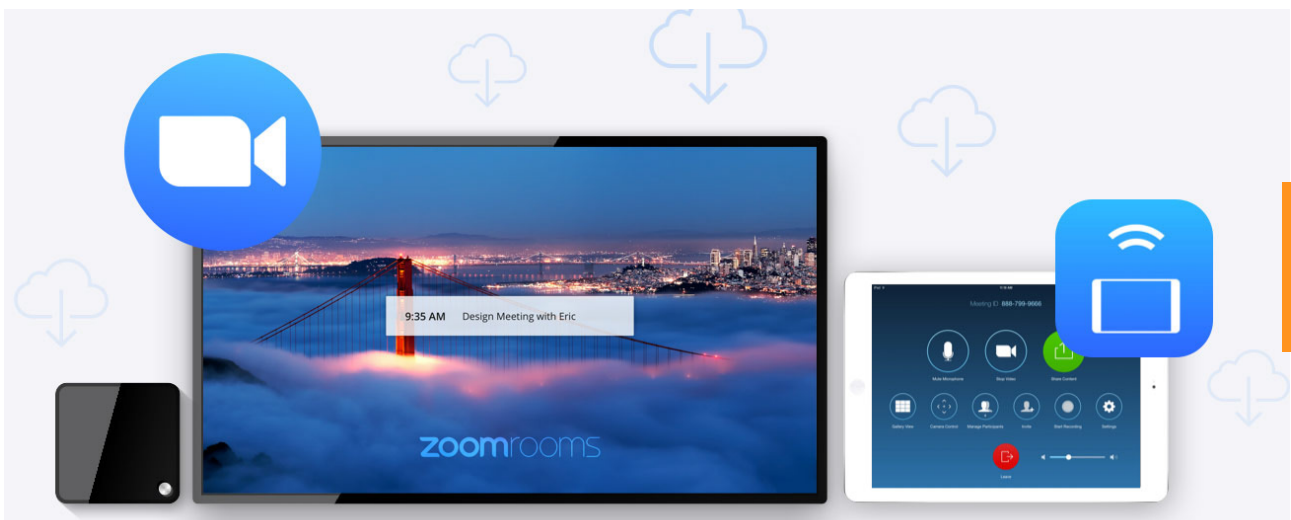


# Zoom Rooms

zoomrooms

A Zoom Room is effectively nothing more than a set of hardware that all has a Zoom app installed on it, which allows you to hold virtual meetings. With Zoom Room software, many of the web cameras, tablets, computers, phone systems, mics, speakers, displays, and smartboards your organization already has can be synchronized to work

together, creating a visual and audio link between people spread far and wide. Zoom Rooms make it easy to connect a group of people sharing one physical space with people working remotely, connecting dozens, or even hundreds of people depending on your subscription level.



## Monitor and manage rooms at scale

Admin dashboard provides real-time and historical reports of room usage, meetings and devices.



## Set room alerts

Assign rooms to different IT managers and also configure alerts that will notify the appropriate individuals when an issue occurs



## Centralized conference room management

Push Zoom Rooms software updates and manage all deployed Zoom Rooms, Cisco, or Polycom rooms from a single admin portal.



## Interoperate with existing video systems

Connect Cisco, Polycom, and other SIP or H.323 room systems with Zoom Conference Room Connector.

## A single Zoom Rooms license includes the following value added services at no additional cost.



### Digital Signage

Utilize an unlimited number of in-room or standalone displays for corporate communications, internal marketing, and more across multiple offices and departments.



### Scheduling Display

End scheduling headaches with a beautiful display that provides room availability, check-in for utilization management, and capabilities to book a meeting for any available time of that day.



### Zoom Rooms for Touch

Make interactive collaboration easy with touch screen displays.



# Webex Rooms



Webex Rooms are purpose built to help teams collaborate and create together in real time, no matter how far the distance. From local wireless sharing and high-quality video conferencing to intelligent, connected workspaces, Webex Rooms offer rich collaboration experiences to support the needs of your workforce as it evolves.

It provides simple and engaging products that are delightful to install, set up, manage, and use.

It's AI enabled video recognizes meeting participants to give viewers the relevant context and automates their tasks and events.

The whiteboard is infinite and persistent, so you can capture and share your ideas anywhere, anytime.

Built for every work style and workspace, each component is designed for optimal microphone placement, exceptional audio output, and the best video quality in the market today.

The Cisco Webex Control Hub is all you need for device management whether it's outfitting one huddle space or redesigning an entire campus.



# MS Teams / Zoom Certified Collaboration Bars:

Collaboration bars are technology that offers consistent user experience, regardless of location, spaces or devices. Large boardrooms, small meeting rooms, huddle spaces provide users with technology that enables easy joining and interaction with online meetings in an incredibly intuitive way.

Microsoft teams collaboration bars are android based and are built as all in one system. They include a camera and microphone. Essentially the Collaboration Bar is designed to be an affordable, easy to deploy solution for focus/huddle rooms which make up much of the market for meeting rooms today. The form factor suits several use cases such as;

**Focus/Huddle rooms**

**Video phone booth**

**Mobile Carts**

**Executive desktop**

**Executive office**

**Home office**

**Home lounge/TV**



Microsoft Teams Collaboration Bars are a new category. They are Android-based, from Crestron, Yealink and Poly. For Zoom Rooms there are few Zoom certified all in one touch appliances from Neat, Crestron and Logitech.



# Crestron Flex

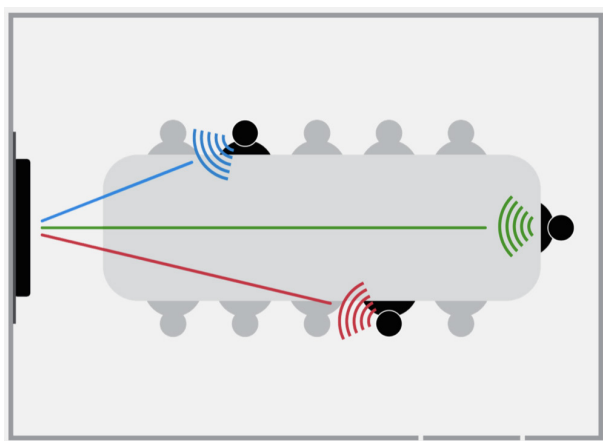
## Video Conferencing System

Every Crestron Flex device brings high fidelity audio, and high resolution video to every type and size of space from rooms seating 1 – 1,000. The 360° quad microphone arrays, beamforming

technology and mic pods pick up every word. The High-precision, HD intelligent cameras with 150° field of vision do everything from focusing on who's speaking to counting who's in the room.

### Crestron UC Smart Sound Bar Series:

The new Crestron UC Smart Soundbar is the front of the room solution with exceptional audio and image quality that brings out the best in every meeting, in any size room, with a single USB connection. It is simple, sleek and delivers decades of audio engineering in every device.



Combines Digital Signal Processing—including Acoustic Echo Cancellation, amplification, speakers, and microphones

Employs adaptive beam forming technology to pick up whoever is speaking with pinpoint precision

Goes beyond simple voice amplification supporting full range audio, so the richest content has the fullest sound

Integrated 4k HD cameras ( UC-SB1-AV and UC-SB1-CAM) lets you pick up on every visual cue and gesture.

# Crestron Mercury

Crestron Mercury enables people to work together, regardless of location or web collaboration application. All others lock you into a single platform. You get all the must-have conferencing and collaboration tools in one easy-to-use console.

The Crestron Mercury lets you present, call, schedule, deploy, monitor, manage and learn with the help of Crestron AirMedia, Microsoft Exchange or Crestron Fusion and Crestron XiO Cloud IoT-based service. Use any soft phone, web conferencing, or UC application to collaborate right from your laptop. Simply connect to Crestron Mercury and it works with what you have today, and may need tomorrow.



**Crestron Mercury X**

Cat5e

HD-RX-USB-2000-C

USB



Camera

HDMI



Display

# Crestron C-Series

Time to realize the potential of custom spaces easily. The C-series Integrates with your choice of displays, cameras, microphones, mixers, switchers, and audio conferencing interface (or speakerphone) with One-touch control to start any meeting, join any conversation, share any content Android or Microsoft Windows.

The One-touch is native to Microsoft Teams or Zoom Rooms plus BYOD. It also lets you manage all the technology in the room via Crestron XiO Cloud platform. It's available with wall mount or tabletop touch screen.



## A single Zoom Rooms license includes the following value added services at no additional cost.

Features	Microsoft Teams Rooms	Microsoft Teams Collaboration Bars
Operating System	Windows 10 IOT Enterprise	Android
Service Support	Microsoft Teams and Skype for Business	MicrosoftTeams
All in one unit	No	Yes
Display Support	Single or Dual HDMI displays with optional touch support	Single HDMI display with optional touch support
Control interface	Room touch panel	Touch screen, touch panel or remote depending on vendor/model
Use case	Small, Medium & Large rooms	Personal, small or huddle rooms
Support for external cameras, room audio systems	Yes	No
Transmit video resolution	up to 1080p	Up to 720p
Number of participants video viewed concurrently	4 (2x2)	4 (2x2)
Future support to connect to Zoom and WebEx meetings	Yes	No (not on the public roadmap)
Content Camera/traditional whiteboard capture	Yes	No
Present whiteboard from the unit	Roadmap	No (can consume when started from another Teams endpoint)
HDMI input to screen share	Yes	No
Proximity Join	Yes	Yes
Custom Branding	Yes	No



# Generic Conferencing Rooms / Collaboration Bars

These types of conference rooms are equipped with video conferencing equipment that are not certified by the Soft codec platforms such as MS Teams, Zoom and Webex. These can include the generat VC room system that include the basic camera speaker,

Microphone, Touch controller equipment required to operate the system also the all in one video collaboration bars by other manufacturers. Some examples can be the **Quantum Leap** and **Leap mini**.



## Quantum Leap

Quantum Leap is an All in one video conferencing solution. It's an easy plug and play solution with crystal clear image quality which gives you digital zoom effects. It plugs into a USB port and simply works. It works well with any video conferencing application and cloud service, including the ones you already use. Leap is designed in such a

way it provides you with everything:

- High-quality video conferencing,
- Dual-screen display,
- 4k Ultra HD camera with a wide-field view,
- Beamforming microphone array,
- High-quality speaker.



Leap helps you to have an amazing meeting experience. It is a complete Hardware kit with easy out of box plug and play deployment for your small to medium-sized rooms.

## Leap-Mini

Leap mini is an in one video conferencing solution specially designed for small collaboration spaces. Leap mini is integrated with codec, Full-HD camera, and Hi-Fi audio, with the all-in-one design that minimizes cable clutter, it optimizes the collaboration experience in huddle rooms.

Its 90-degree field-of-view easily accommodates huddle rooms where people sit on either side of the camera.

No pan and zoom required. Leap mini has a built-in Android system that works well with most video collaboration applications-Skype, Zoom, WebEx-to name a few.



## Leap Lite

The Leap Lite for Conference Room with Mounting Bracket is a step forward in conference cameras. It features the camera and a display bracket mount that enables mounting your camera to the top or bottom of most display screens and monitors. The lens of Leap lite with a 110°diagonal field of view that is suitable for most meeting or conference rooms. No drivers are required to work on Linux, Windows,

Android etc. The leap lite is also compatible with virtually all collaborative software platforms. And it connects your computer via USB, which makes it a simple plug-and-play video conference solution.



# Conclusion

The best video conferencing system will depend on your needs, compatibility and budget. Certain systems and services don't play nice together and each has its own limitation or nuance. Here is where you need to find the right audio visual integration partner that can help you choose the right platform and make sure your devices and services are compatible.

Allwave can help you find the right choice according to your needs and help you create and experience the ultimate video conferencing experience.

It's always important to keep these points in mind, your VC system should be:

- Simple to deploy: Cost effective solutions that allow technology to scale throughout the workplace. Leverage all-in-one compact footprint that eliminates the need for multiple components for clutter free rooms.
- Simple to Use: Ensure ease-of-use with exceptional UX for touch-to-join video meetings that save time and are as natural as face-to-face interactions. Enable easy content sharing that adds value to collaboration.
- Simple to Manage: Ensure a single pane of glass view for easy monitoring and management of device and meeting room performance. Leverage native integrations with leading cloud services for a "better together" experience.

While video conferencing in room locations will always have a role in the workplace for critical group meetings, it is vital to remember that many employees do not always have the time to walk down the hall to a conference facility. The two dimensions of classic video conferencing systems – audio and video – can be supplemented with a third dimension – data – as an integral component to create a well-rounded complete system when using a software-based architecture. When you compare three-dimensional, integrated products to what was previously available, the old method of communication appears flat. The demand for the more powerful codecs can only be economically justified with software based solutions.

Software-based codecs, for a variety of reasons, are here to stay and offer users the flexibility needed to upgrade information and technology as it is needed, thereby eliminating expensive hardware.

