INFORMATIONAL MEMORANDUM

TO: **Finance and Governance Committee**

FROM: **Rachel Bianchi, Deputy City Administrator**

BY: **Joel Bush, Chief Technical Officer**

CC: **Mayor Ekberg**

DATE: **06/01/21**

SUBJECT: **Council Chambers/Committee Rooms- Technology Buildout Proposals**

ISSUE
Consideration of funding to modernize technology in Council Chambers / Committee Rooms to provide capabilities for hybrid in person / remote meeting participation for Council, staff, and stakeholders.

BACKGROUND
2020 highlighted the need to modernize the audio/video infrastructure to support a fully hybrid meeting environment, ensuring physical and remote attendance capabilities for Council and Committee meetings.

CURRENT ROOM CONFIGURATIONS
Council Chambers:
- Requires a physical staff presence for computer, camera, TV and audio controls, acting as a liaison between the physical and remote meeting functionality.
- Analog connectivity requires physical devices; rolltop desk, server cabinet, wiring, camera control board, laptop, and recording controls for TV21.
- The bulk of equipment was purchased in 2012, and currently unsupported by the manufacturers.

Committee Meeting Rooms (Duwamish and Hazelnut):
- No current hardware to support hybrid meeting capabilities that would allow physical and remote attendance, or broadcasting to the public, which the Council implemented in 2021 via the MS Teams interface

DISCUSSION
Technology and Innovation Services is seeking Council guidance and consideration of funding to support refining bids with vendors. Currently we have the following three options:
Council Chambers, Option #1- Minimal Updates to Technology - $10,000

Main Actions
- Purchase dedicated PC to support hybrid Council and Committee Meeting

Benefits
- Support for remote meeting attendees.
- Minor funding needed.

Challenges
- Requires additional TIS staff member to facilitate hybrid meetings.
- Noise pollution from analog equipment /servers / camera controls in the council chambers

- Bulk of equipment falls out of manufacturer support and warranty.

Council Chambers, Option #2- Modernize Some Technology - $75,000

Main Actions

- Three predetermined automated camera tracking(e.g., Right Dais, Left Dais, Center Dais,) based upon the active speaker, for sustained period of time.
- Remove or relocate existing physical equipment at the back of the room.
- Re-purpose existing Nexia sound system, still supported.

- Configure & install Crestron control panel, providing a sole management interface for the control of audio and video.
- Purchase dedicated PC to support hybrid Council and Committee Meeting

Parts acquisition, installation, programming, testing, and training.

Benefits

- Support for remote meeting attendees.
- Providing automated camera functionality. e.g, auto-zoom camera to right, left and center dais, pre-positioning, based upon active speaker.
- Enhanced digital audio and video communications for Council members.
- Refreshed equipment, wiring, manufacturer support, and warranty.

Challenges

- Still requires two TIS staff to support.
- Zoom camera functionality to highlight Council members will require manual intervention.
- Existing microphones re-purposed

Council Chambers, Option #3- Modernize All Technology - $200,000

Main Actions

- Install Televic System, which includes eight touchscreens, cameras, microphones, and seven conference units with microphones.
- Streaming media processor.
- Re-purpose existing Nexia sound system, still supported.
- Install Assisted Listening Systems.
- Remove or relocate existing physical equipment at the back of the room.

- Configure & install Crestron control panel, providing a sole management interface for the control of audio and video.
- Install three to five digital cameras with auto-tracking
- Install five 75" monitors
- Parts acquisition, installation, programming, testing, and training.
- Purchase dedicated PC to support hybrid Council and Committee Meeting

Benefits

- Support for remote meeting attendees.
- Providing automated camera functionality. e.g, auto-zoom camera to active speaker.
- Agenda submission on microphone screen.
- Digital voting capabilities for Council, the voting results can be private or publicly broadcast in the Chambers.
- Enhanced digital audio and video communications for Council members.
- Refreshed equipment, wiring, manufacturer support, and warranty.

Challenges

- Increased funding needed.

Committee Meeting Rooms, Duwamish and Hazelnutt- Separate at $4,000
<u>Main Actions</u>
• Outfit each room with Logitech Group, see handout.
<u>Benefits</u>
• Enables remote meeting attendance with video capability.
<u>Challenges</u>
• None

FINANCIAL IMPACT
Technology and Innovation Services is seeking Council guidance and funding for the above. Initial review of the technology resulted in a broad range of proposals that brought price points for hardware, software, and configuration options, that ranged from $10,000 – $200,000 with Committee rooms separate at $4,000.

RECOMMENDATION
At a minimum Technology and Innovation Services would recommend Option 2, which would meet the majority of immediate needs.

Council Chambers- TIS would like to remove analog equipment in the back of the room, removing end-of-life equipment and complexity to manage video component of the meetings, relocating physical equipment to a network closet outside of the chambers.
Committee Rooms- Outfitted with equipment to support Hybrid meetings.

Technology and Innovation Services is asking for Committee direction on options and next steps.

ATTACHMENTS
April 29, 2021 MRSC Post on Hybrid Meetings
Listen Technologies
Televic Conference
Televic Multi Media
Logitech Group

![MRSC Local Government Success logo]

Looking Ahead: Holding "Hybrid" Public Meetings

April 29, 2021 by Emma Diamond
Category: Legislative Body

The COVID-19 pandemic has been challenging to local governments on many levels, including a pivot to holding remote meetings for health and safety reasons. With Washington counties shifting to different COVID-19 phases to open up, some local governments are starting to consider whether to transition back to in-person public meetings. While virtual meetings have been helpful in keeping local government employees and residents safe during the pandemic, technological and communication issues have been challenging to overcome. In-person public meetings can be easier to facilitate but have their own challenges with engagement and accessibility.

Combining remote and in-person attendance into a "hybrid public meeting" option may be a good approach for your jurisdiction to consider, and this blog will provide an overview of the model, including how some Washington cities are approaching the topic.

Benefits of the Hybrid Public Meeting Model

This hybrid model has many benefits for communities and the public. Several local governments have noted increased attendance at public meetings since switching over to a virtual option due to pandemic restrictions. Online meeting platforms allow people to access and participate in meetings from their home or workplace, but it also limits access to those attendees who have the requisite technology needed to attend a virtual meeting.

In-person meetings may also limit the people who can participate because it requires attendees to appear at a designated place during a specific time. Providing both virtual and in-person meeting options, e.g., the hybrid public meeting model, would appear to improve equitable access to local government. An individual who cannot attend a public meeting in person due to a disability, work, or other commitment can chose the virtual option while anyone who does not have the technological capability to participate online can opt for in-person attendance.

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What Are Washington Local Governments Doing?

MRSC conducted a survey of Washington city clerks to understand how local governments are accommodating public meetings currently and whether they plan to transition to a hybrid model once the pandemic recedes. From the 80+ cities that responded to the survey, 32 jurisdictions said that they are planning on conducting hybrid public meetings in the future, 11 said that they would be returning to the in-person (only) public meeting format, and 35 said that they were unsure (see the graph below).
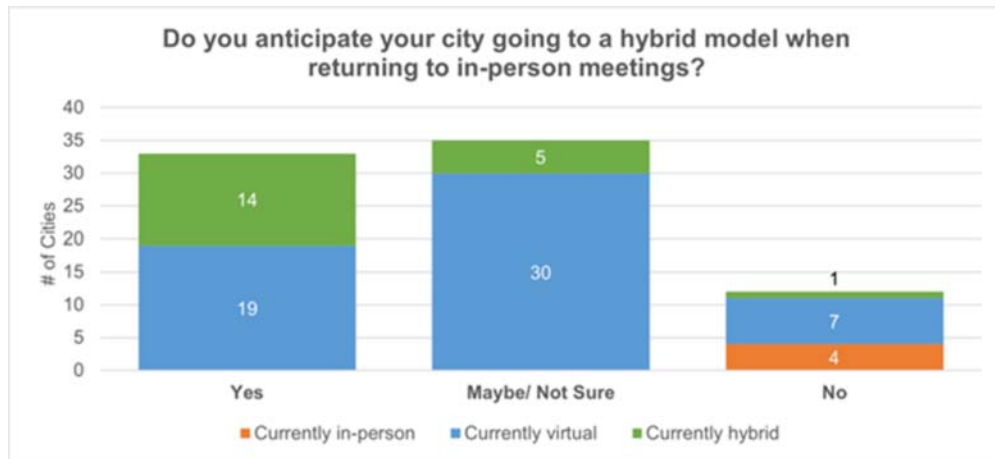

A major reason for those local governments that plan to use the hybrid model in the future was voiced by Sue Ann Spens, Hunts Point City Clerk, who said, "We would like the option to continue hybrid meetings at a minimum to accommodate those who may be wary of attending in-person."

Challenges of the Hybrid Model

Regardless of whether an agency will be using the hybrid approach or just returning to in-person meetings, many local governments indicated via the survey that they would be addressing public safety/health concerns prior to allowing people to attend in-person meetings. These steps include requiring masks, social distancing, limiting capacity, and providing hand sanitzer for those individuals who attend in person. Some cities also said they were considering temperature checks for staff and elected officials and having an overflow room to accommodate additional members of the public once capacity is reached in the main meeting location.
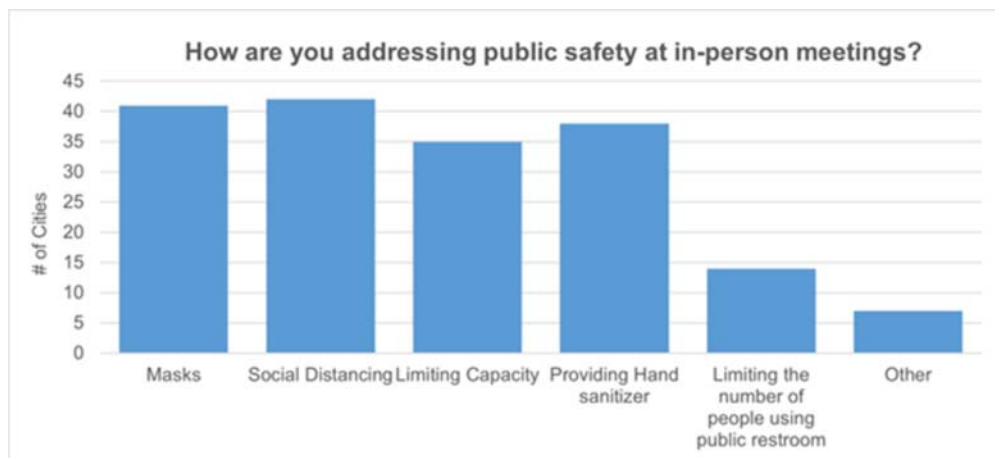
In the MRSC survey, cities were asked how they will be handling interactions with in-person and virtual attendees. This could include allowing for both in-person and virtual public comments in a meeting or having staff read comments aloud for virtual attendees. A wide variety of solutions are currently being utilized or are under consideration. Here is a sampling of the comments from survey respondents:

- **Ritzville**: "We are utilizing a camera to show the in-person council meeting. Due to limited broadband capacity, we are also using the phone so everyone can hear each other whether in person or over the phone. If the Wi-Fi goes down, then we at least still [have a] connection through the phone." Julie Flyckt, City Clerk

- **Enumclaw**: "[We have t]wo large television monitors in Council Chambers that can be seen by attendees and also

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to livestream/tv audience. [The meeting host will] use 'pin' feature to keep Councilmembers on the screen, and only add public and staff members to the large screen when they are speaking." Maureen Burwell, City Clerk

- **Moses Lake**: "[R]emote attendees are audio only, except an occasional remote presentation." Debbie Burke, City Clerk

Lack of technological capabilities was a primary concern of cities looking to go hybrid for their public meetings.

A number of cities expressed that a lack of adequate finances or insufficient staffing levels were barriers to conducting hybrid public meetings.

- **Ilwaco**: "Our small city only has 2 FTE administrative employees who assist [the] mayor and council. It would be very difficult to monitor a public meeting while ensuring safety guidelines in person, as well as conducting a hybrid meeting with limited resources." Holly Beller, Treasurer
- **Prescott**: "The City would like to update City Hall to have...[a] television monitor and laptop to conduct meetings in our conference room; finances are not allowing the City to update at this time." Linda Vannoster, Clerk-Treasurer
- **Duvall**: "Duvall is in research mode for technology that can accommodate [the] hybrid model. Facility and technology needs are our biggest hurdles." Jodi Wycoff, City Clerk

Many communities are still conducting completely virtual meetings, but as we prepare to go back to more in-person activities, now may be the time to ask your community what works for them. Taking inventory of what resources you have to accommodate different meeting platforms may result in more meaningful engagement and more opportunities for community members to participate in your local government's activities.

For More Information

Here are some upcoming webinars that readers of this blog might find interesting:

Our The Post-Pandemic Workplace, Part 1: Policies and Practices for the Post-COVID Office on Thursday, May 20, from 10 AM - 11:30 AM, will look at how cities and counties from across the state are rethinking operational practices. In a companion webinar, AWC is covering the changing legal landscape for public sector employers — from collective bargaining agreements to employee handbooks.

Planners, plans examiners, building officials, and others involved in the development review process should consider registering for our Making the Switch to Paperless Permitting webinar on Tuesday, June 1, from 12 PM - 1:30 PM. Featuring a panel of local experts, this webinar will answer your questions related to transitioning to digital permitting.

The author would like to thank MRSC's Steve Butler for his assistance with this blog post.

MRSC is a private nonprofit organization serving local governments in Washington State. Eligible government agencies in Washington State may use our free, one-on-one Ask MRSC service to get answers to legal, policy, or financial questions.

About Emma Diamond

Emma Diamond worked for MRSC in October 2020 as a Public Policy intern. She is currently pursuing a
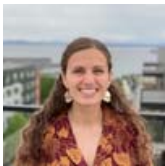
Master's of Public Administration from the Evans School at the University of Washington, focusing on local government and environmental policy.

Previously, Emma has worked on water conservation, sustainability, and racial equity projects for the City of Milwaukee and the City of Sacramento as an AmeriCorps fellow.

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Configuration:

LCS-121-01-D Wi-Fi/RF Advanced System (Dante)

Product Overview:

This system combines Wi-Fi and RF technologies to give compliant audio coverage PLUS expanded coverage to everyone with a Smartphone. The Wi-Fi System comes with Dante multi-channel digital media networking capabilities.

Highlights:

- Extended Audio Reach
- Dante Capabilities
- Free Smartphone App

Includes:

One (1) LW-100P-02 LE 2 Channel (mono) Wi-Fi Server
One (1) LW-202 LE Venue Awareness Kit
One (1) LT-800-072-01 Stationary RF Transmitter (72 MHz)
One (1) LA-304 Assistive Listening Notification Signage Kit
One (1) LA-122 Universal Antenna Kit (72 MHz)
One (1) LA-326 Universal Rack Mount Kit
One (1) LPT-A107-B Dual RCA to Dual RCA Cable 6.6 FT. (2 M)
Two (2) LR-4200-072 Intelligent DSP RF Receiver (72 MHz)
Two (2) LA-401 Universal Ear Speaker
Two (2) LA-430 Intelligent Ear Phone/Neck Loop Lanyard
One (1) LA-423 4-Port USB Charger
One (1) LA-466 Dante 2 Channel Output XLR Adapter

Confidea FLEX

Configurable Conference Unit with Touch Screen

Description

Confidea FLEX is Televic's all-in-one tabletop conference unit with an integrated 5.2″ touch screen with fingerprint coating. It combines a slim, non-intrusive, contemporary design offering extended functionality with effortless ease of use.

> The Confidea FLEX was designed to offer one solution that meets different user needs. Using the Plixus web server, you can easily configure the unit as chairperson, delegate or unit for double use*. Or even unlock additional functionality over time.

Extended Functionality in A Single Unit

The Confidea FLEX was designed to offer one solution that meets different user needs. The unit has one large physical button that can change its functionality based on the applied configuration. Using the secret until lit principle, different functions light up indicating which actions are possible with the button. Using this principle, the button can be used for delegate, chair person or double use delegate.

Furthermore, functionality can be unlocked based on licenses. This means that over time customers can unlock extra functionality without the need to re-invest in new hardware.

The current license model contains five different options:

» Voting
» Identification
» Interpretation
» Dual Use*
» Bluetooth®*

Advanced Participant Interaction

As chairperson, you can control different aspects of the meeting, simply using the intuitive display on the Confidea unit. It lets you start, pause meeting, and even record the meeting. Easily start and stop voting sessions, and even move to another agenda topic without the need of a computer.

As delegate you are welcomed to the meeting, you can see which agenda item is being discussed or see how much speech time you have left. You can even see who is currently speaking and your place in the request list.

During voting sessions, you can cast your vote and get a view on the voting results. Tactile feedback will be given when your vote is registered be means of vibration.

televic conference

* Available in future software updates

This unit is also equipped with an NFC card reader for identification. This is ideal for meetings with a free seating policy: the system can keep track of who is seated where.

Accessibility

As the unit uses a touchscreen, special attention has been given to visual impaired users. Tactile references are spread over the length of the screen. Functions like language selection and voting have been designed in such way that controls are mapped on the tactile references. Volume controls received a different layout of tactile reference. The unit has support for Bluetooth®*. This can be used to send audio to users Bluetooth enabled hearing aid or conversion box to more conventional aids.

Easily Integrated in the Plixus Architecture

The units interconnect in daisy chain over Cat 5e Plixus® network cabling, as all other types of units. The RJ45 connectors are hidden in the base of the unit and facing downwards guiding the cables easily into the cable entry so no cables are visible on the conference table for fixed setups. For mobile setups a cable entry is part of the unit's design.

The units can be cabled in loop so meetings can proceed in the event a cable or a unit gets defective.
What's more, the hotswap functionality of the Plixus system reduces the downtime of a unit since it is easily replaceable with a spare unit, even during an active meeting.

Finally, the units benefit from Plixus's audio processing capabilities. The result is a warm and natural sound that makes listening much more comfortable.

Features

The Confidea Flex is a sleek and stylish solution and can be set up in the blink of an eye. The input and output connections are auto-sensing and interchangeable.

Using the Plixus web server you can easily change the functionality of a unit, making it a delegate or chairperson unit, or change the license and associated functions. As a result, installation is easy, fast, and straightforward, making it the ideal system for frequently changing environments or grow in functionality over time with the needs of the customer.

The removable microphone is immune for typical mobile phone interference, so delegates can leave their phones switched on during the meeting.

» Built-in high-quality loudspeaker which is automatically muted when the microphone is active, to prevent acoustic feedback
» Button which contains request-to-speak and priority functionality when unit is configured as chairperson or two request-to-speak functions in dual use
» Two headphone outputs with single volume control

» Interactive display showing meeting information such as agenda topic, who is speaking, position in request list, speech timers, voting and language selection depending on activated licenses.
» Basic meeting control for chairperson
  › Start / stop recording
  › Meeting state control
  › Voting session control
  › Agenda control
» NFC reader
» Card reader slot
» Tap to log-in functionality*
» Haptic feedback on touchscreen
» Light sensor for automatic luminance adjustment*

Connectivity

» Screw-lock socket to connect a removable microphone.

D-MIC30SL	**71.98.0053**
D-MIC40SL	**71.98.0054**
D-MIC50SL	**71.98.0055**

» Two RJ 45 connectors for loop through cabling
» Two 3.5 mm stereo jack sockets for headphones
» Bluetooth® support for hearing aid*
» Plixus-powered

Licenses and Software

» Confidea FLEX licenses:

L-Vote	**71.98.1401**
L-Identification	**71.98.1402**
L-Language	**71.98.1403**
L-Dual*	**71.98.1404**
L-Bluetooth®*	**71.98.1405**

» To fully configure, manage, and use the unit, Televic's CoCon management software is required. The following standard licenses are available:

CoCon Discussion	**71.98.1101**
CoCon Voting	**71.98.1104**
CoCon Interpretation	**71.98.1107**

» To enhance the functionality of meetings and extend the features of the Confidea FLEX, the following optional licenses are available:

CoCon Signage	**71.98.1102**
CoCon Authentication	**71.98.1105**
CoCon Import/Export	**71.98.1108**

* Available in future software updates

Certification

Region	Certification
Europe	CE

Specifications

Mechanical	
Material	PC/ABS & Zamak
Color	Black
Size (mm)	220 (w) × 50 (h) × 165 (d)
Size Packed (mm)	240 (w) × 60 (h) × 170 (d)
Weight	995 g
Weight Packed	1106 g

Electrical	
Voltage	48 VDC
Consumption	6 W
Card Reader	ISO 14443 MIFARE Card Reader DESfire EV1 support

Display	
Size	5,2"
Technology Type	LCD TFT
Touch Technology	Capacitive
Bonding Technology	Optical
Coating	Anti-fingerprint AF
Active Area (mm)	127 (w) x 33.9 (h)
Refresh Rate	60 Hz
Screen Resolution	480 x 128
Viewing Angle	65° (left), 65° (right), 55° (top), 65° (bottom)
Luminance	min. 800 cd / m²
Contrast Ratio	500:1
Color Depth	RGB 24b

Speaker Output	
Maximum Output Power	> 1 W
Frequency Response	200-20,000 Hz
Dynamic Range	> 90 dB
THD @ Nominal Level	< 0.1%
Load Impedance	8 Ω

Headphone Output	
Maximum output	> 10 mW
Frequency response	200 -20,000 Hz
Dynamic range	> 90 dB
THD @ nominal level	< 0.1%
Load impedance	16-32 Ω

Microphone Input	
Nominal Input Level	-54.7 dBV
Maximum Input Level	-24.6 dBV
Input Impedance	1 kΩ
Dynamic Range	> 93 dB
Frequency Response	25-20,000 Hz
THD @ Nominal Level	< 0.1%

Enviromental	
Operating Temperature	0 - 45°
Storage Temperature	-20 - 60°
Humidity	< 95 %, > 5 %

Bluetooth®	
Version	V5.0 Dual mode
Frequency	2.402 - 2.480 GHz
Maximum Transmit Power	Class 1 +8 dBm from antenna
Receive Sensitivity	- 94 dBm

uniCOS T/MM10

uniCOS 10" Tabletop Multimedia Unit

Description

uniCOS T/MM10 is Televic's tabletop multimedia conferencing unit, specifically designed for the Plixus architecture. Power is delivered over the Plixus conference network, so no additional power distribution towards the room is required. No need for different devices, you can configure the uniCOS T/MM as either a delegate or a chairman unit.

Every participant has access to all audible and visual information on his or her proper uniCOS unit.

> Participants can speak, see, hear, and interact with delegate stations by combining video, audio, and document sharing.

uniCOS T/MM10 features a bright 10" adjustable touchscreen that you can angle into different positions, from fully horizontal to an angle of 90°. The screen gives participants intuitive access to every uniCOS feature. From video selection, over messaging and talking to other participants, agendas, delegate information, texting, to voting, and the option to hide features that are not relevant to the meeting. With the integrated camera, you can easily configure talking heads.

Features

The uniCOS tabletop unit features the following functionality:

- » Solid, stable tabletop design with more flexibility than a flushmount version
- » Connected to interchangeable Plixus ports. No dedicated IN and OUT ports.
- » Daisy chain or closed loop using Cat 5e / Cat 6 cable.
- » 10" adjustable touch screen
- » Integrated 5MP camera providing live video of the last active speaker

televic
conference

- » Units configurable as delegate or chairman
- » Create a custom standby screen using an image or one of the video streams
- » On-screen Priority and next button for delegate microphone control
- » Microphone control on chairperson units
- » 6 low-latency video streams with a latency lower than 1frame
- » Televic's "Rich Sound Processing" resulting in a crisp and clear sound that is also warm and human
- » Microphone activation button
- » Configurable LED color for microphone status (red / green)
- » Screw-lock microphone connector. Microphones sold separately.

D-MIC30SL	**71.98.0053**
D-MIC40SL	**71.98.0054**
D-MIC50SL	**71.98.0055**
D-MIC70SL	**71.98.0057**
D-MIC40FF	**71.98.0059**
D-MIC40BC Cardioid	**71.98.0072**
D-MIC40BC Hypercardioid	**71.98.0073**

- » RFID card reader for authentication, with support for Mifare Classic & DESfire
- » Build-in loudspeaker, automatically muted when microphone is active
- » 3.5 mm stereo headphone connector
- » Volume and language selection on touchscreen
- » 2 USB 2 connectors to connect to for example a nameplate or charge smartphones
- » Active Speaker / Request and Reply list overview
- » Overview of participants and biography
- » Consulting agenda and meeting information
- » Speech time progress bar
- » Voting and voting result visualization (CoCon Voting required)
- » Documentation view (CoCon Documentation license required)
- » Messaging (CoCon Messaging & Services required)
- » Service request (CoCon Messaging & Services required)
- » Option to force all units to display a selected application or function and lock the view
- » Possibility to set, add, modify and time agenda items
- » Option to set up intercom calls (CoCon Intercom Required)

Software

To fully configure, manage, and use the unit, Televic's CoCon management software has several licenses to enable specific functionality on uniCOS multimedia units:

CoCon Discussion	**71.98.1101**
CoCon Voting	**71.98.1104**
CoCon Authentication	**71.98.1105**
CoCon Documentation	**71.98.1109**
CoCon Messaging & Services	**71.98.1110**
CoCon Video Routing	**71.98.1113**
CoCon Intercom	**71.98.1115**

Certification

Region	**Certification**
Europe	CE

Specifications

Mechanical	
Material	Brushed zamac with aluminum finishing PC/ABS bottom
Color	Black and gray
Screen angles	0°, 15°, 30°, 45°, 60°, 75° and 90°
Size (upright display position) (mm)	330 (w) × 208 (h) × 155 (d)
Size (horizontal display position) (mm)	330 (w) × 40 (h) × 235 (d)
Size packed (mm)	470 (w) × 50 (h) × 285 (d)
Weight (g)	2300
Weight packed (g)	2700
Electrical	
Voltage	48 VDC
Power consumption (with front USB port in use)	15 W (Additional 2.5 W when using the second USB port)
Power connector	Snap and lock mini DIN power plug
Card reader	ISO 14443 MIFARE Card Reader DESfire support
USB port current	0.5 A
USB port voltage	5 V
Display	
Size	10" diagonal
Active area	216.96 × 135.60 mm
Refresh rate	60 Hz
Screen resolution	1280 × 800
Viewing angle	85° (Left), 85° (Right), 85° (Top), 85° (Bottom)
Luminance	500 cd/m²
Technology type	IPS
Touch technology	PCT (Projective Capacitive Touch)
Camera	
Resolution	5 MP
Hierarchical degree of visibility (HDoV)	60°

Camera mode	1080p @ 30 fps JPG
Speaker Output	
Maximum output power	1.3 W (Zload 8 Ohm)
Frequency response	200-20,000 Hz (-3 dB)
Dynamic range	97 dB / 102 dBA
THD @ nominal level	< 0.1% (@ -20 dBFS)
Load impedance	4 Ω
Headphone Output	
Maximum output	37 mW (Zload 32 Ohm)
Frequency response	22-22,000 Hz (-3 dB)
Dynamic range	94 dB / 97 dBA
THD @ nominal level	< 0.05% (@ -20 dBFS)
Load impedance	16-32 Ω
Microphone Input	
Dynamic range	> 90 dB
Frequency response	20-20,000 Hz (-3 dB)
THD @ nominal level	0.1%
Environmental	
Operating temperature	0 – 45°C
Storage and transport temperature	-20 – 60°C
Humidity	<95%, >5%

Table Cutout
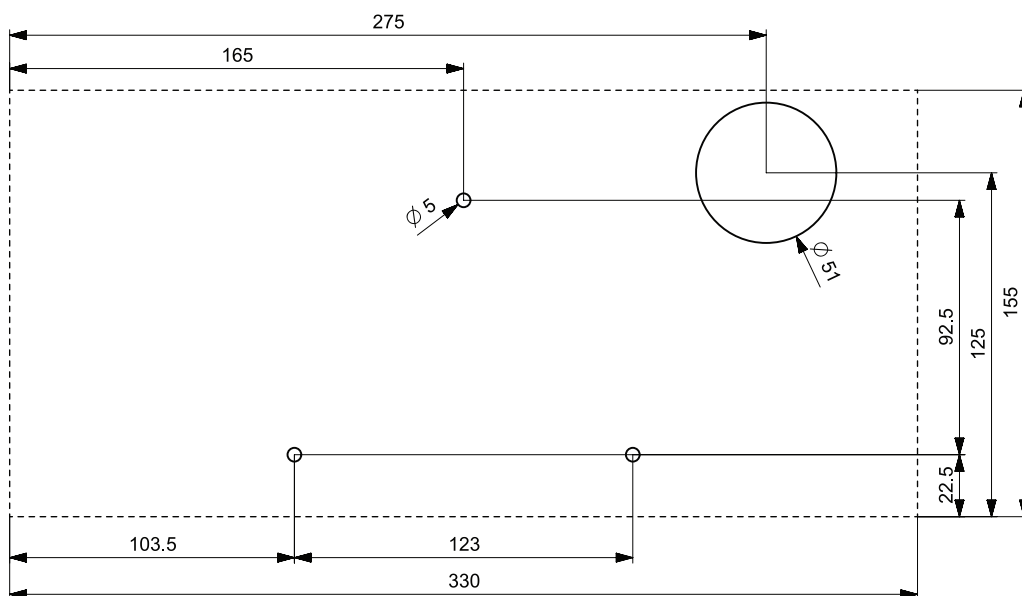
Logitech GROUP

GROUP, the amazingly affordable video conferencing system for mid to large-size conference rooms, allows any meeting place to be a video collaboration space. It's as simple to use as a mobile phone and affordable as an office chair, now it's easier than ever to include anyone in the conversation.

USB plug-and-play connectivity makes GROUP a breeze to deploy and use. It even works within your own familiar computing environment with any video conferencing software application — including the ones you already use.

Razor sharp video and a beautifully designed full-duplex speakerphone deliver an outstanding collaboration experience that's so awesome everyone can be seen and heard. Simply connect a laptop and start a meeting, or use the state-of-the-art speakerphone with a *Bluetooth*® wireless technology enabled mobile device for great-sounding audio calls.

Logitech GROUP

GROUP Room Set-up

GROUP + Expansion Mics Room Set-up
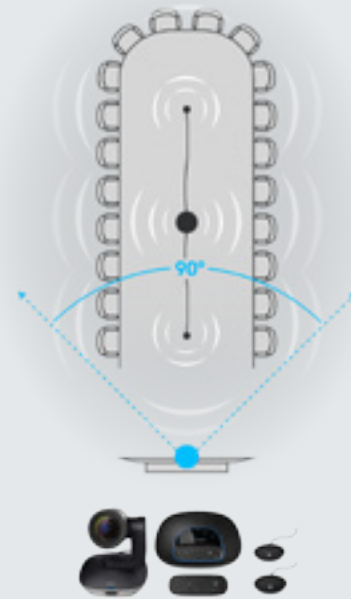
Video Conferencing Elevated.
GROUP, our video conferencing solution for groups of 14–20 people, delivers high quality HD video and crystal clear audio, allowing any meeting place to be a video collaboration space. With advanced features like acoustic echo cancelation, noise reduction technology, and intuitive controls, now it's easier than ever to include anyone in the conversation.

Video Collaboration Made Simple.
USB plug-and-play connectivity makes GROUP easy to use. Simply connect a laptop to conduct life-like meetings within your own familiar computing environment for use with any video conferencing software application — including the ones you already use. Plus, you can use the state-of-the-art speakerphone with a Bluetooth wireless technology enabled mobile device for great-sounding audio calls.

Your Meeting Space. Your Way.
GROUP offers the flexibility to customize conference room set-up with multiple camera mounting options. Use the camera on the table or mount it on the wall with included hardware. The bottom of the camera is designed with a standard tripod thread for added versatility. Conference participants can also clearly converse within a 6 m/20' diameter around the base, or extend the range to 8.5 m/28' with optional expansion mics.

For razor sharp close-ups of objects and whiteboard content, the GROUP camera offers 10x lossless zoom, enabling your team to see every detail with outstanding resolution and clarity.

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Logitech GROUP

| VIDEO | AUDIO | CONNECTIVITY AND USAGE |
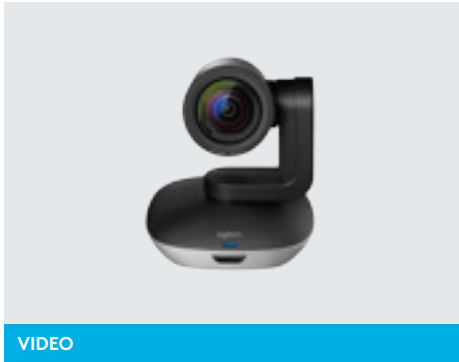
VIDEO

HD 1080p video quality at 30 frames-per-second
Brings life-like full HD video to conference calls, enabling expressions, non-verbal cues and movements to be seen clearly.

H.264 with Scalable Video Coding (SVC) and UVC 1.5
Preserves PC processing and battery power by putting video processing within the camera adjusting dynamically to the available bitstream. The result is a smoother video stream in applications like Skype® for Business and in Windows® 8 and Windows 10.

90° field of view with mechanical 260° pan and 130° tilt
The generously wide field of view and silky smooth pan and tilt controls enhance collaboration by making it easy to see everyone in the room.

10x lossless HD zoom
Zero in on close-ups of objects and whiteboard content with outstanding detail and clarity.

Autofocus
High-precision lens automatically focuses on people and objects to deliver razor-sharp resolution wherever the lens is pointed.

Razor-sharp optics
Enhance face-to-face collaboration. Advanced Logitech lens technology delivers remarkable video quality with superb resolution, speed, fluidity, color balance, and detail.

Far-end camera control
Operate camera pan, tilt and zoom functions[1] of another Logitech® ConferenceCam or Webcam C930e in the other location.

5 camera presets
Multiple camera presets make it easy to frame and focus the lens on frequently used views — such as the conference table, whiteboard, and close-ups — and quickly return to each view at the touch of a button.

Plug-and-play camera setup
Simply connect camera to powered hub with 4.9 m/16' cable provided to get up and running in a snap.

AUDIO

Full-duplex speakerphone
Hear and be heard with life-like sound that's crisp, clear, and highly intelligible. Plus the cast metal base console is loaded with advanced audio features and intuitive controls.

Spacious audio
Conference participants can converse within a 6 m/20' diameter around the speakerphone and be heard so clearly by remote participants that it seems like conversations are happening in the same room.

Optional expansion mics
Expand the conversation area from 6 m/20' to 8.5 m/28' so that even those away from the speakerphone can be clearly heard. Microphones, sold in pairs, are automatically recognized and configured by simply plugging them into the GROUP speakerphone.

Beamforming technology with four omni-directional mics
Conversations sound realistic and natural by minimizing sound reflections (reverb) and distracting audio artifacts.

Acoustic echo cancelation
Advanced acoustic engineering reduces echo, making calls sound more natural.

Noise reduction technology
Ambient noises and other distracting tones are suppressed to support comfortable, natural-sounding conversation on both ends of the call.

HD audio
High bandwidth audio reproduces vocal tones with exceptional quality, enabling people on both sides of the call to enjoy a life-like communication experience.

Visual call status indicator
Onboard LEDs flash to provide visual alerts when on a call, when there's an incoming call and when an incoming call is muted.

LCD displays Caller ID and other info
View call-related info[2] (Caller ID, call duration, etc.) and speakerphone/camera function indicators (volume control, etc.) on LCD display screen.

Plug-and-play speakerphone setup
Simply plug the speakerphone into the powered hub with the supplied 4.9 m/16' cable to get up and running in no time.

CONNECTIVITY AND USAGE

Tight integration with top cloud communication apps
Logitech partners with the top communication developers[5] to ensure the most integrated and seamless experience when using GROUP.

Compatible with Mac® and PC
Simply connect a PC or Mac® to conduct meetings within the user's own familiar computing environment.

Works with most UC and video conferencing applications
Users are free to use the desktop video conferencing application of their choice.

Bluetooth wireless technology and Near Field Communication (NFC) technology[3]
Connect the speakerphone to a Bluetooth wireless technology enabled device for great-sounding audio calls, or pair NFC-enabled mobile devices by simply bringing them close together.

Professional-grade certifications
Leading business certifications (Certified for Skype for Business, Cisco Jabber® and WebEx® compatible[4]) and enhanced integration with Logitech Collaboration Program (LCP) members[5] ensure an integrated experience with most business-grade video conferencing platforms.

Optional GROUP Extended Cables
The optional GROUP 10m Extended Cable can be routed through a conduit to double the distance from 5 to 10 meters (32.8') between the Logitech GROUP hub and the camera or speakerphone. For longer runs involving plenum-spaces, use the GROUP 15m Extended Cable to triple the distance from 5 to 15 meters (49.2')[6].

Multiple camera mounting options and device setup configurations
Set up the conference room the way you want with up to a 9.8 m/32' range between camera and speaker. Use the camera on the table or mount it on the wall with included hardware. The bottom of the camera is designed with a standard tripod thread for added versatility.

Dockable remote control
Operate camera pan, tilt and zoom, volume up/down and answer/hang-up[7] functions on the base speakerphone console or with remote control that docks in console when not in use.

PTZ app
Control local camera pan, tilt and zoom functions from PC or Mac with simple-to-use software app.

Logitech GROUP

CAMERA

Smooth motorized pan, tilt and zoom, controlled from remote or console

260° pan, 130° tilt

10x lossless HD zoom

90° Field of View

Full HD 1080p 30fps

H.264 UVC 1.5 with Scalable Video Coding (SVC)

Autofocus

5 camera presets

Far-end control (PTZ) of ConferenceCam products

Kensington security slot

LED to confirm video streaming

Standard tripod thread

REMOTE CONTROL

Dockable

8.5 m/28-foot range

PRODUCT SPECIFICATIONS

Logitech GROUP
Price: $999
Part #: 960-001054
UPC: 097855118462

Expansion Mics
Price: $299
Part #: 989-000171
UPC: 097855119551

Logitech GROUP + Expansion Mics
Price: $1,249
Part #: 960-001060
UPC: 097855120038

GROUP 10m Extended Cable
Price: $99
Part #: 939-001487
UPC: 097855129765

GROUP 15m Extended Cable
Price: $199
Part #: 939-001490
UPC: 097855131942

SYSTEM REQUIREMENTS

Windows® 7, Windows 8 or Windows 10
Mac OS X® 10.7 or higher
Google Chromebook Version 29 or higher

Note: For full HD support, please check with your software application provider for system requirements.

SPEAKERPHONE

Full-duplex performance

Acoustic echo cancellation

Noise reduction technology

Ultra-wideband audio

Bluetooth and NFC wireless technology

LCD for caller ID, call duration and other functional response

LEDs for speakerphone streaming, mute, hold, and Bluetooth wireless paring

Touch controls for call answer/end, volume and mute, Bluetooth – plus camera PTZ, "home" preset and far-end control

Microphones (Tx)

   Four omni-directional microphones supporting 20-foot diameter range

   Frequency response: 100Hz – 11KHz

   Sensitivity: -28dB +/-3dB

   Distortion: <1% @ 1KHz at 106dB

Speakers (Rx)

   Frequency response: 120Hz – 14KHz

   Sensitivity: 83dBSPL +/-3dB at 1W/1M

   Max output: 91dBSPL

   Distortion: <5% from 200Hz

Kensington security slot

PRODUCT DIMENSIONS + WEIGHT

Camera
146 x 131 x 130 mm
5.8 x 5.2 x 5.1"
580 g/20.46 oz

Wall/Table Mount
210 x 120 x 99 mm
8.27 x 4.72 x 3.90"
255 g/8.99 oz

Speakerphone
240 x 65 x 240 mm
9.5 x 2.5 x 9.5"
1223 g/43 oz

Expansion Mics
83 x 83 x 21 mm
3.3 x 3.3 x 0.83"
230 g/8 oz

Hub
94 x 34 x 74 mm
3.75 x 1.3 x 2.9"
83 g/3 oz

GROUP 10m Extended Cable
Cable/Repeater
10 m x 4 mm/50 x 12 mm
32.8' x 0.16"/1.97 x 0.47"
278 g/9.8 oz

Remote
50 x 120 x 10 mm
1.97 x 4.72 x 0.39"
48 g/1.69 oz

GROUP 15m Extended Cable
Cable/Repeater
15 m x 5 mm/50 x 12 mm
49.2' x 0.20"/1.97 x 0.47"
510 g/18.0 oz

Package
500 x 152 x 310 mm
19.75 x 6 x 12.25"
4.1 kgs/9 lbs

HUB / CABLE

Central mountable hub for connection of all components

Included adhesive solution for under-table mounting

Two cables for connection between hub and camera/speakerphone (Length: 5 m/16')

One USB cable for connection to PC/Mac (Length: 3 m/9.8')

AC Power adapter (Length: 3 m/9.8')

MOUNT

Dual purpose mount for wall placement or for elevating the camera on a table

COMPLIANCE AND TOOLS

USB 2.0 compliant

UVC-compliant video and audio for broad application compatibility

Certified for Skype for Business, Cisco compatible[4], and enhanced integration with Logitech Collaboration Program (LCP) members[5]

Downloadable diagnostic tool

Field upgradeable firmware tool

Downloadable app plug-ins for advanced feature support

INSIDE THE BOX

Camera, speakerphone, remote control, two 5 m/16.4' cables for connection between speakerphone and hub and camera and hub, one 3 m/9.8' meter cable between hub and PC, Velcro for cable management, Velcro for hub to table securing, powered hub, power adapter with regional plugs, mount, quick start guide, warranty card.

WARRANTY

2-year limited hardware

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www.logitech.com/GROUP

To order, contact your reseller or call us at 800-308-8666