

Designing for Multipurpose Rooms

RoomOS AI and AVoIP

Chase Voisin
Solutions Engineer

CISCO Live !

Session ID: BRKCOL-2558

Cisco Webex App

Questions?

Use Cisco Webex App to chat with the speaker after the session

How

- 1 Find this session in the Cisco Live Mobile App
- 2 Click “Join the Discussion”
- 3 Install the Webex App or go directly to the Webex space
- 4 Enter messages/questions in the Webex space

Webex spaces will be moderated by the speaker until 14 November 2025.



<https://cislive.ciscoevents.com/cislivebot/#BRKCOL-2558>

Agenda

- 01 Intro
- 02 Advanced Rooms
- 03 AV of the Past
- 04 AV of the Present
- 05 Cisco Innovations
- 06 Ethernet Switching
- 07 Divisible Rooms
- 08 Q&A/Closing

Intro

Who are you?

- **Global Collaboration Solution Engineer** in the video devices Center of Excellence
- From Baton Rouge, Louisiana
- 12 years at Cisco
- My **first** Cisco Live Presentation!



Advanced Rooms

Common Room Experience Challenges



Not being able to hear
or see those at the far
end of the room



Picking up audio and
video from those
outside the meeting



Looking at and talking to
people in the room and
forget about remote

Common issues in larger multi-purpose rooms



Cameras don't see far
end of the rooms



Audio and Video
capture in large
spaces



Cameras not designed
to follow presenter on
stage

Cross View

- The Cross View setup combines a Quad Camera at the front of the room with two wall mounted PTZ4K, Room Vision, or Quad Cameras positioned parallel to the long edges of the meeting room table.
- Based on the camera views and audio pickup, the codec will select the camera making sure the speaker is captured at their best orientation.
- The Table Microphone Pro or a Single Ceiling Microphone Pro are **required** for this feature and are used together with the cameras for locating active speakers.
- All intelligence related to camera switching and control is run locally on the codec meaning that Cross View can work with **any meeting platform**.



Traditional Crossview Rooms



Extended Reach Speaker Mode

- The PTZ 4K or Room Vision camera is installed above the Quad Camera. The video system will automatically switch between the two cameras to capture in-room participants.
- The PTZ 4K or Room Vision camera is selected to provide a higher quality and tighter crop when capturing people positioned beyond the reach of the Quad Camera.
- Extended Reach Speaker Mode will provide intelligent cropping at distances up to 50 feet / 15 meters!



Traditional Extended Reach Rooms

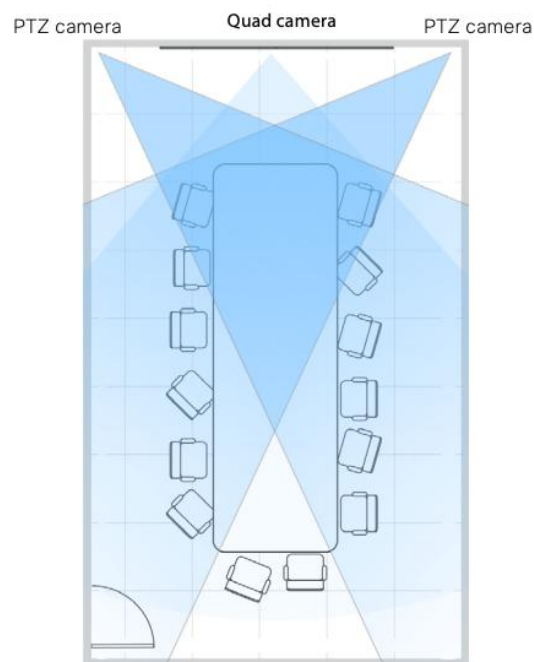
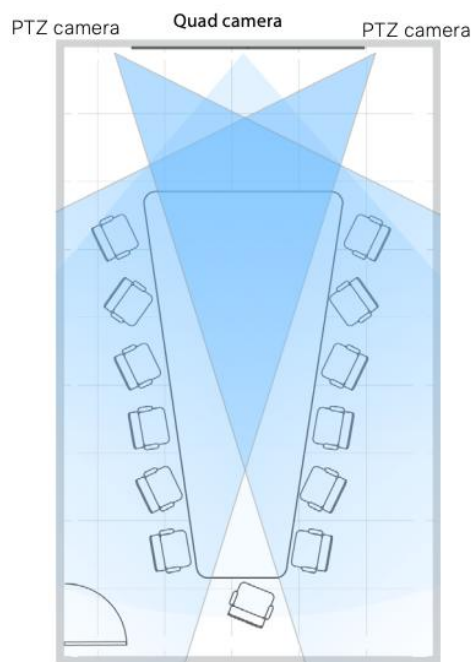
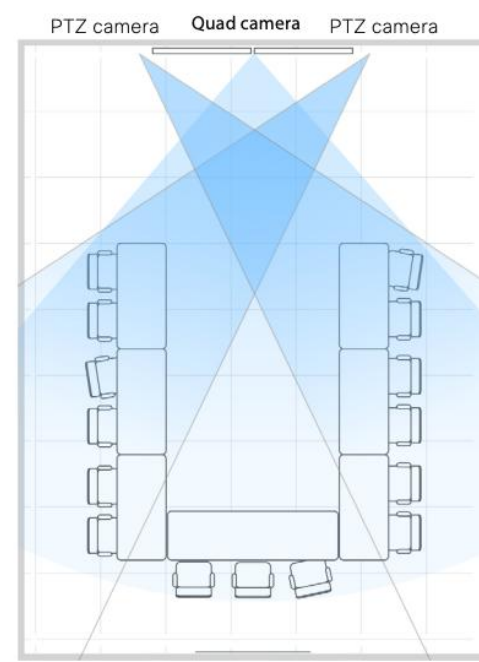


Combined Experience



New Crossview PTZ Camera Placement

Room layout using PTZ cameras on the same wall



IP Simplification

C9200CX Series
PoE+ Switch



Codec EQ



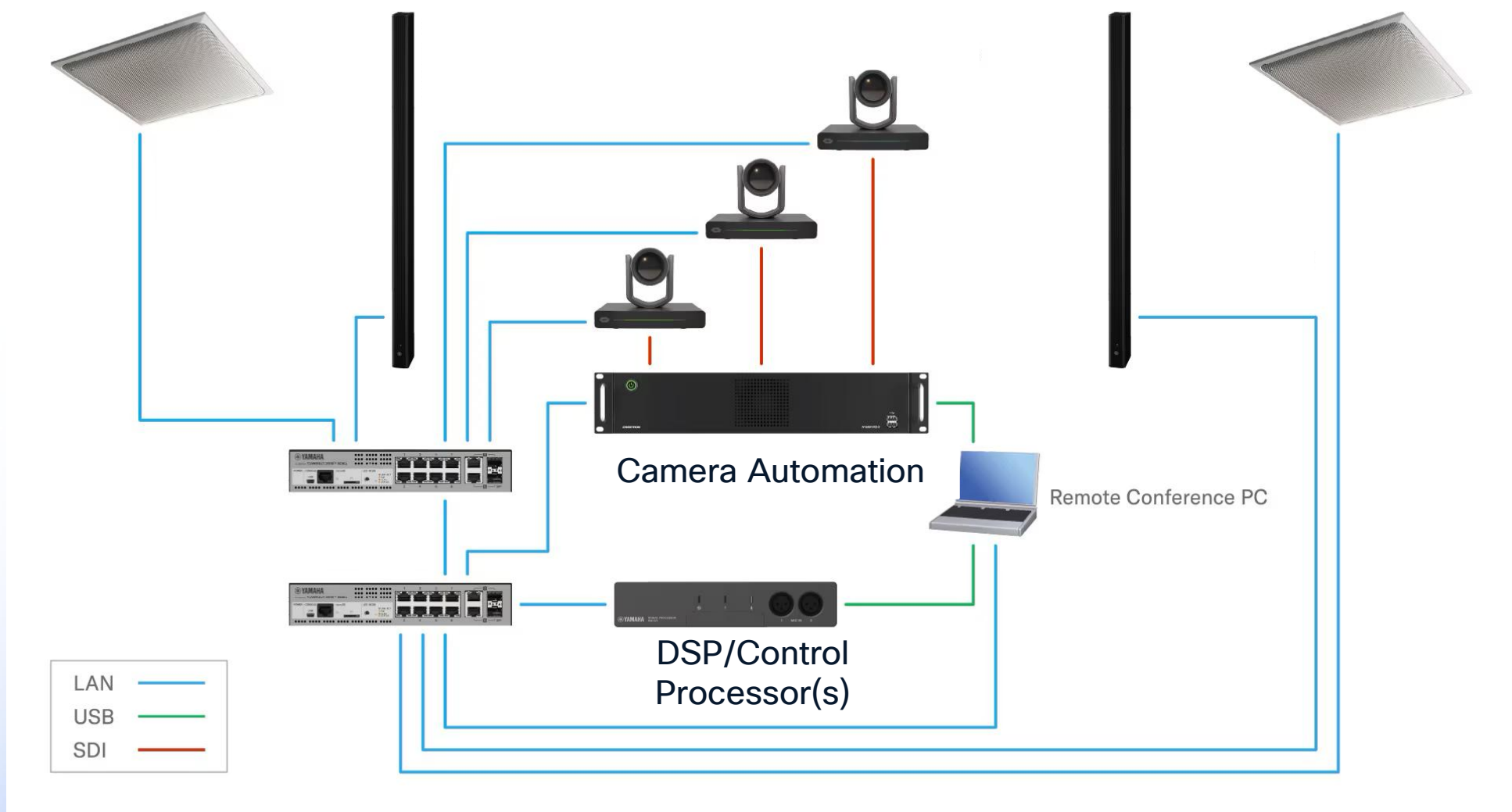
Room Vision PTZ
Video over IP

Cisco IP Mics
Audio over IP

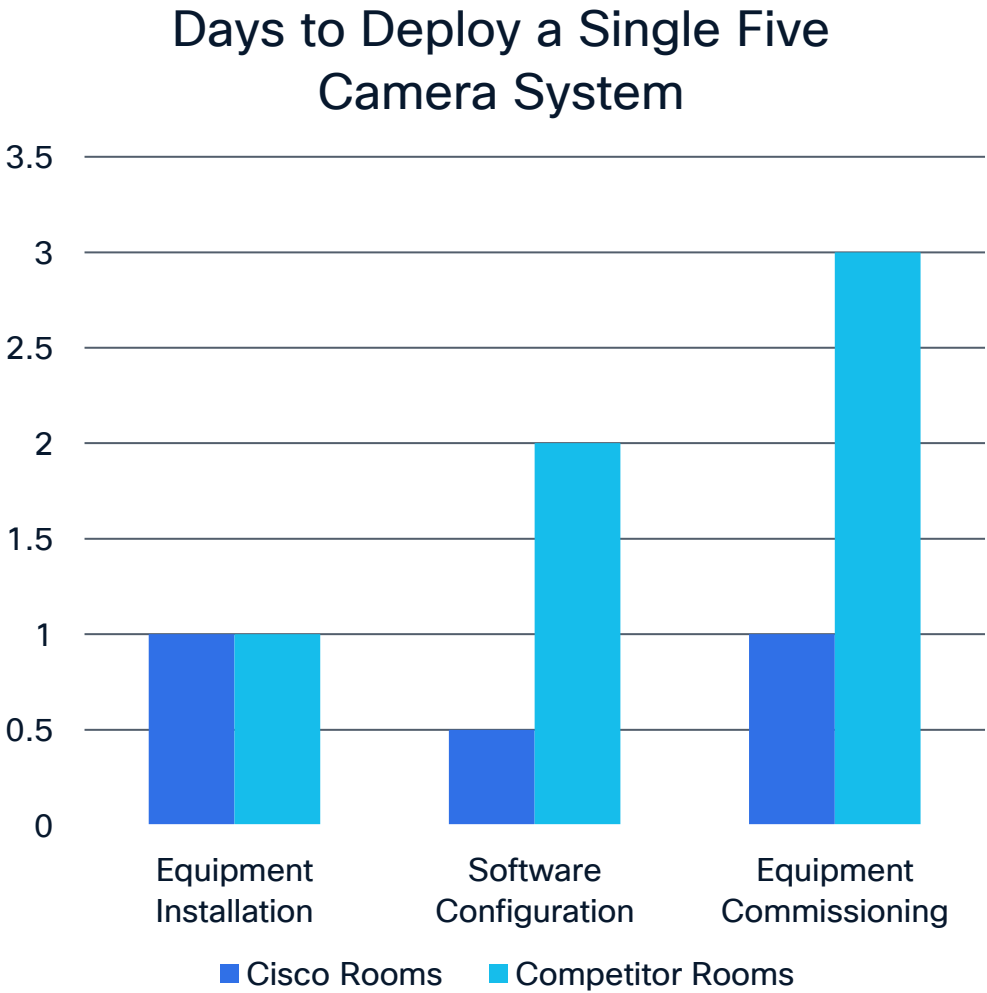
Room Navigator
Control & Booking over IP

Quad Camera
Control over IP

Competitor Solutioning



Deployment Timeline

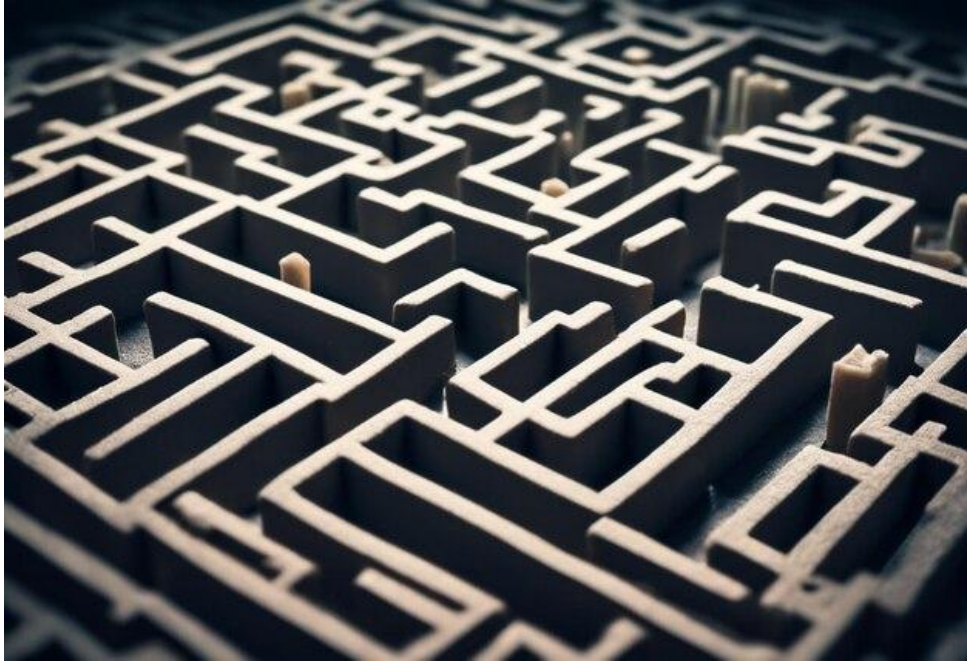


AV of the Past



“If you don’t know where you are going, any road will get you there”

Lewis Carroll



Traditional AV Deployments

Codec



Analog Mics



PTZ
over HDMI



PTZ
over HDMI

Codec



Analog Mics



PTZ
over HDMI



PTZ
over HDMI



Codec



Analog Mics



PTZ
over HDMI



PTZ
over HDMI



Custom Cable Counter

10



10



HDMI Extender



HDMI Extender



PTZ
over HDMI



Codec



PoE Switch
(local network)



HDMI
Extender



HDMI
Extender



PTZ
over HDMI



Analog Mics



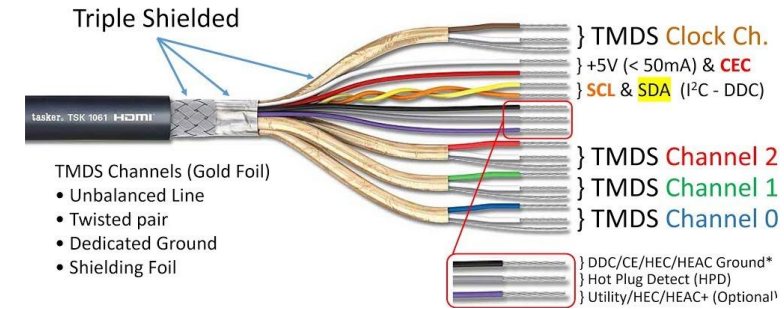
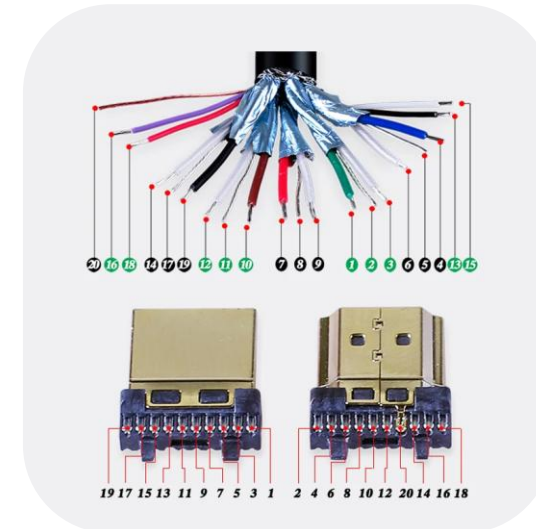
AV to AVoIP: Pets vs Cattle



Cable Challenges

- Cables are **fixed** lengths and factory made with **high failure rates**
- Cannot field terminate cables
- HDMI is only good for **50 feet or 15 meters** or DA
- **3-5 locations** are needed to derive **power**

HDMI Cable (TL) Construction



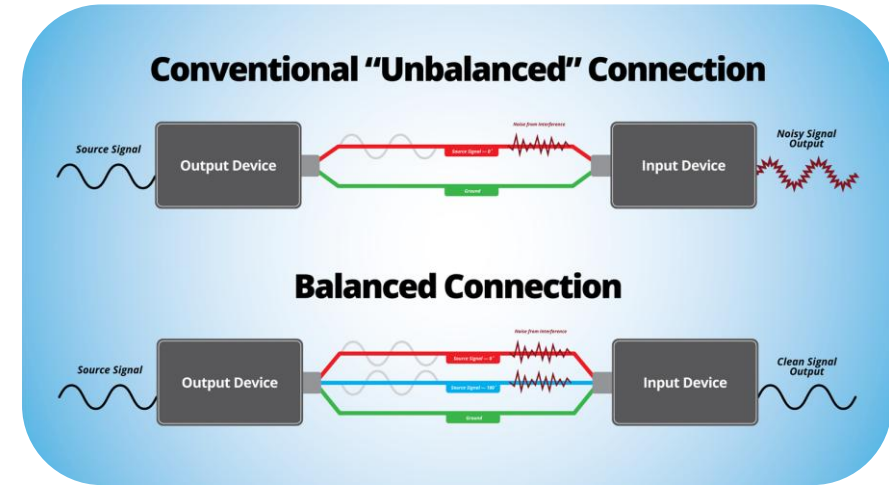
Cable Challenges

- Heads of cables cannot be passed in conduit/duct/sweep
- Conduit **fill** concerns
- Core drills are **expensive, loud, dusty, and wet**



Cable Challenges

- **Shielded** cable often needed
- Balanced audio implications not well understood
- TRS not easy to terminate if unfamiliar
- Difficult to **convert** a cable
- **Power** required at a lot of places



Cable Solutions

- HDMI Extenders solve it all (and kill visibility)
- ✓ **Custom cable lengths** can be cut and fit conduit
- ✓ Plenty of Cat5 **on the truck**
- ✓ Low voltage license is all you need
- Plenum and conduit challenges remain
- 3 conductor cable & XLRs purchased as needed



AV of the Present

AVoIP Implementations of Today



Audio



Video



Control

Audio

Audio over Ethernet

Audio Solutions

Broad market data

How do I get audio on the network to my video solution?

What tools do I need?

Dante is the main installed product in the market

AES67 next in market share

RAVENNA is low single digits

All others are sub-1% market share often niche players

Audio

Dante and AES-67 Audio

Audio Solutions

Broad market data

How do I get audio on the network to my video solution?

What tools do I need?

All Ethernet based

Similar concepts to Cisco, with myriad of vendors

Star topology, flat layer 2 network

PTP (precision time protocol) clocking

provides accurate timing on ethernet segments

nanosecond accuracy versus milliseconds

Audio

Dante and AES-67 Audio

Audio Solutions

Broad market data

How do I get audio on the network to my video solution?

What tools do I need?

Dante Controller

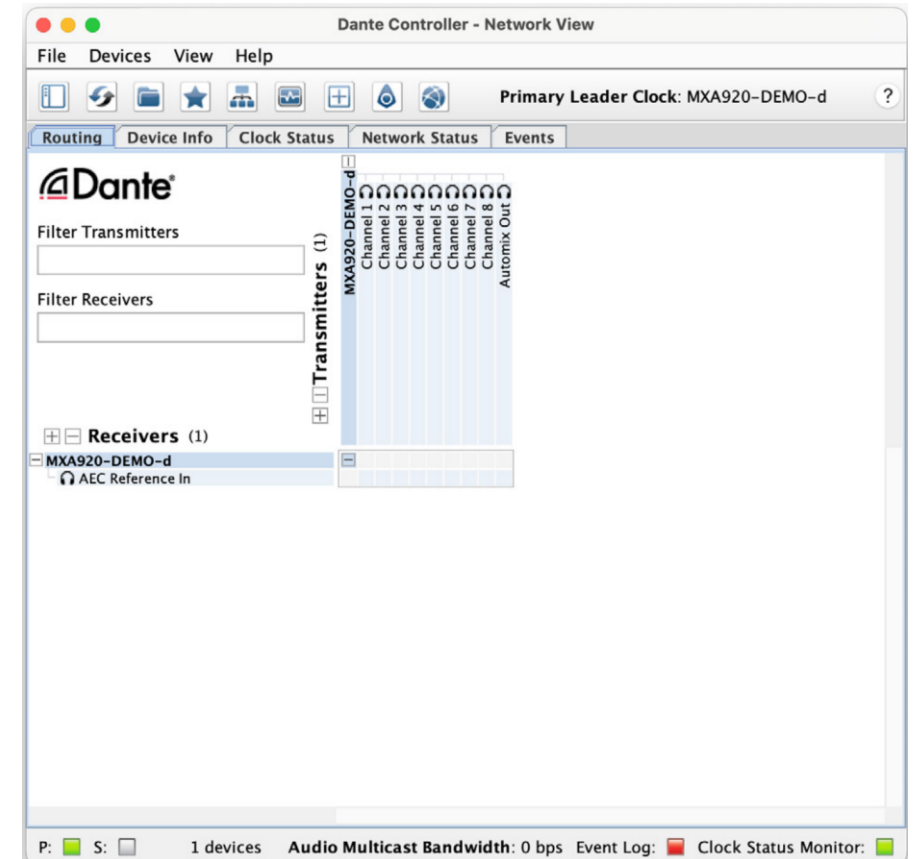
Configures everything

Fairly steep learning curve

GPO and/or antivirus on corporate machines conflicts

Audio routing, stream creation, and configuration

Very confusing if inexperienced



Audio

Dante Hardware Requirements

- Audinate is the parent company.
- Audinate developed and owns Dante
- Dante combines hardware, software and networking to make this work.
- Audinate makes several chips for Dante
 - Ultimo, Broadway, Pro S1
- Audinate/Dante require the chips for the solution

Video

Video over Ethernet

Video Solutions

Broad market data

How do I get video on the network to my video solution?

More fragmented featuring vendor specific solutions wrapped around some standards.

Crestron, Extron, Qsys, Atlona, and AMX

Standards exist

SDVOE (Software defined Video over Ethernet)

SMPTE ST 2110

Dante Video

HDBaseT

Not all video is the same

HDBaseT vs Vendor Solutions

HDBaseT

- Standards-based solution
- Point-to-point solution
- Not Ethernet based
- Not IP based transit
- Vendors can be mixed

Vendor Solutions

- May or may not be standard based
- Multi Access network types (Ethernet)
- Star topologies typical
- Vendors cannot be mixed

Video

Video over Ethernet

Video Solutions

Broad market data

How do I get video on the network to my video solution?

How do we put this on the network?

Varies depending on the manufacturer

- Vendor-specific tools

- Vendor locked and integrator only (Crestron)

- Acquiring the hardware is not enough

- Low to no interoperability between vendors

HDBaseT is very easy with plug and play but is point-to-point only

NDI: The Elephant in the Room



NDI Solutions

Video over Ethernet

Proprietary solution from Vizrt (formerly NewTek)

Lacks predictability of SDI

Variable bandwidth and latency

Silent frame drops

“just works or doesn’t”

Not uncompressed as often misunderstood

SpeedHQ codec is equivalent to MPEG-2 encoding and susceptible to artifacts

Control

Control Solutions

Control over ...something that looks like a cat5 cable

Just because it's a cat5 cable doesn't mean it's Ethernet

Serial control still very popular

RS322 or RS422/485

VISCA and VISCA over IP

Camera, microphone, speakers, and system control mechanisms are often different

Can also include a huge list of in-room sensors

A typical meeting room can be complex

Room deployments are overly complicated...

Complex to deploy
Complex to use
Complex to maintain

PC



Sensors



Digital signal processors



Wireless sharing kits & dongles



Controllers & switchers



Adapters



Traditional meeting room design and implementation



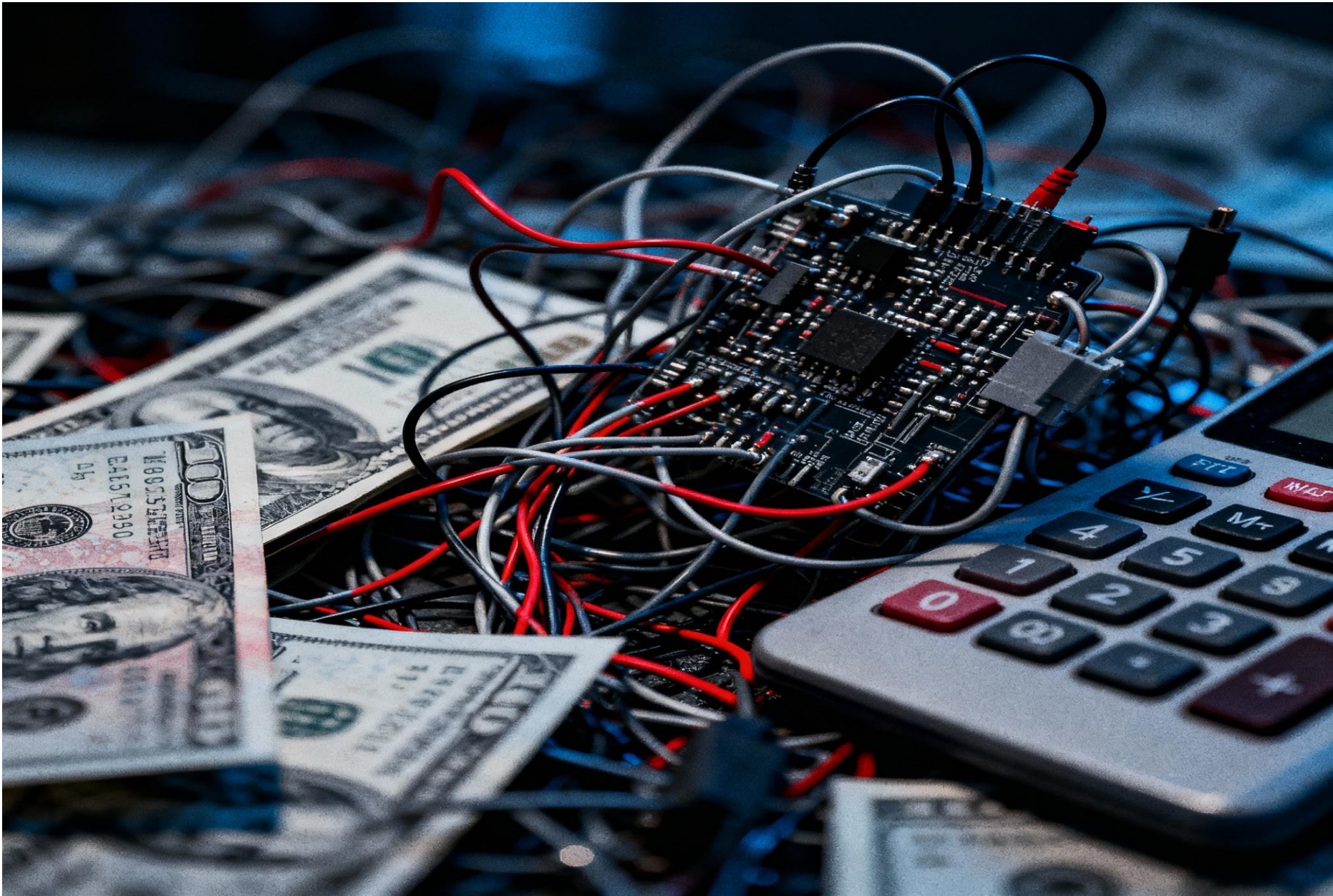
Audio Integration



Video Integration



Control Integration



Cisco Innovations

Our Unique Heritage



1994
2500 Series Routers
Enabling Cisco VoIP



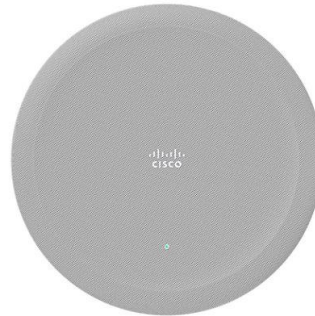
1998
Selsius IP Phone 30 VIP
First VoIP Phone



2006
7985G or T150
Cisco | Tandberg



2021
Table Microphone Pro
First Cisco AVoIP Accessory



2024
Ceiling Microphone Pro
Second Cisco AVoIP Accessory



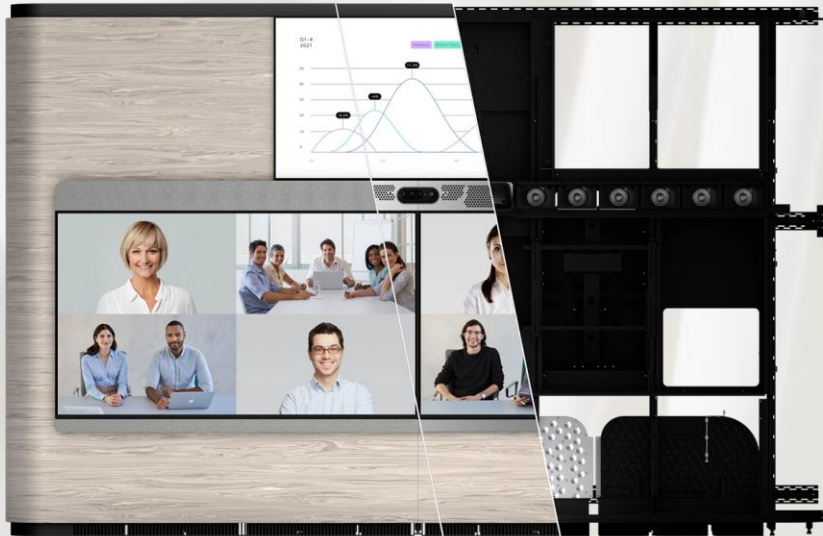
2025
Room Vision PTZ
First Cisco AVoIP Camera

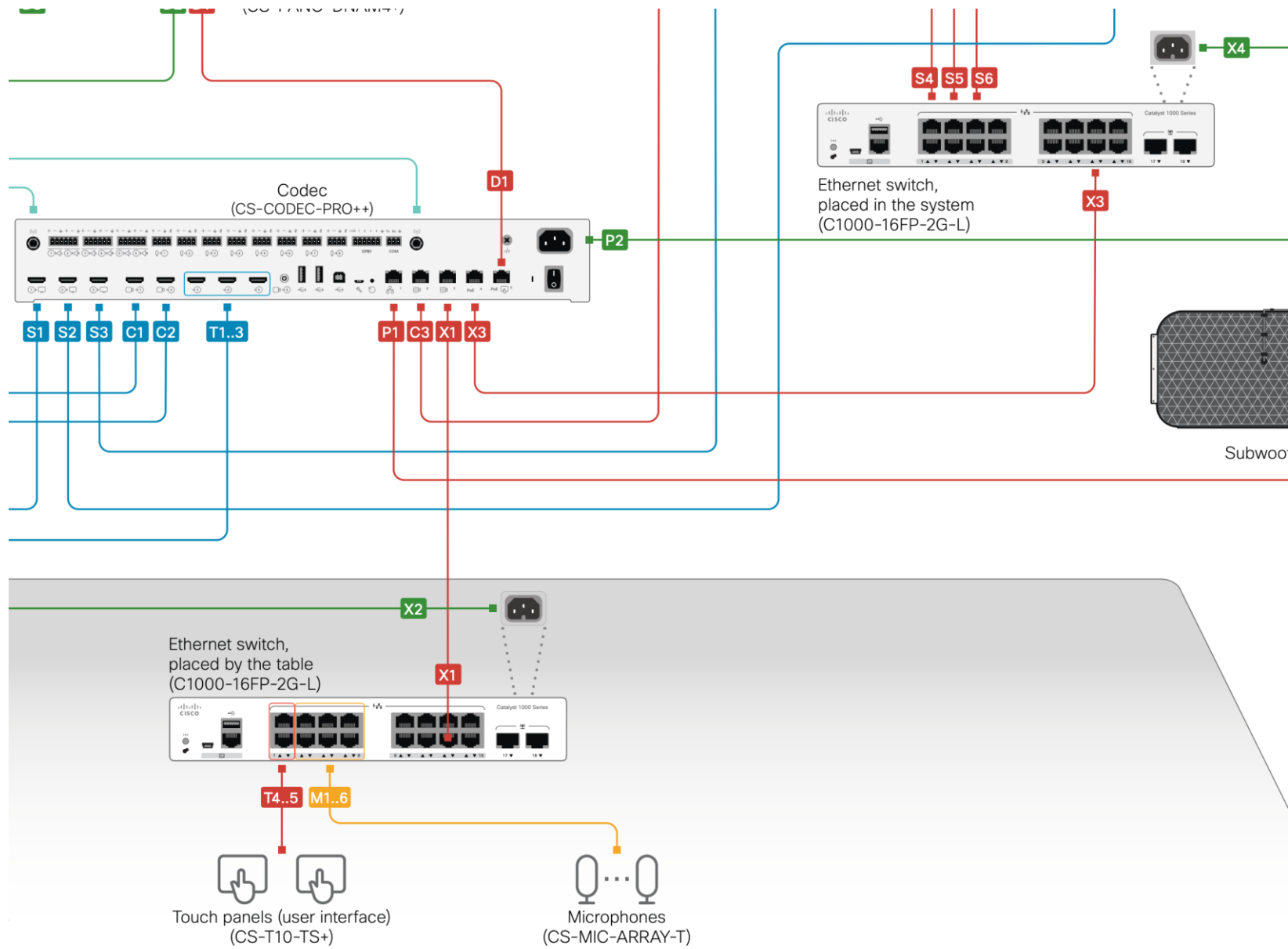
Control-Over-Ethernet



Industry Disruption Started in 2021

Audio-Over-Ethernet





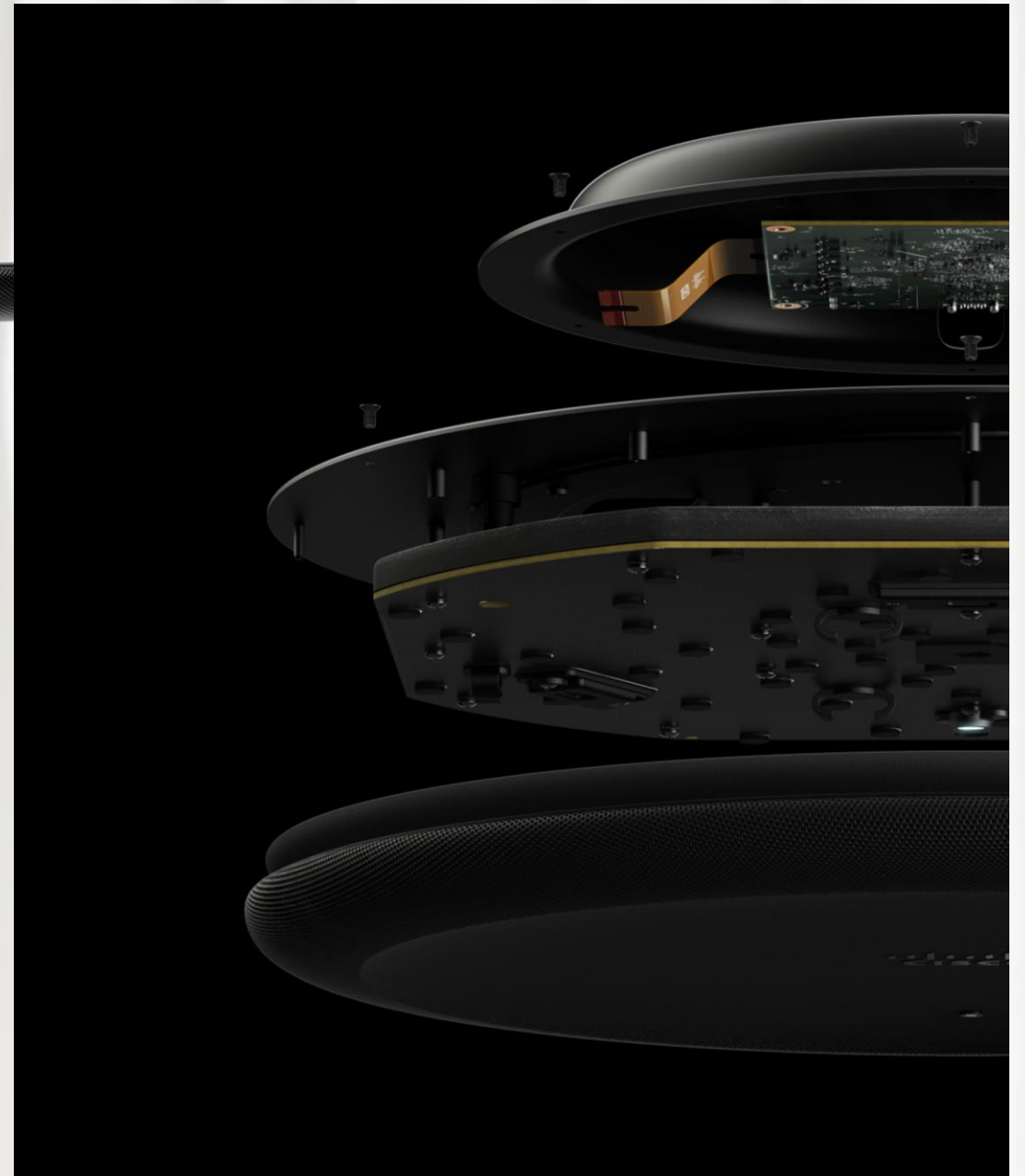


Fastest selling peripheralever.





- 64 Omnidirectional Microphones
- 8 AI Adaptive Audio Beams
- 11.5ft Audio Pickup Radius (~3.5m)
- 3 Ultrasonic Speakers
- POE (4.5 watts) Class 2
- Audio over IP via encrypted AES-67
- 2 color options
 - Arctic white
 - Carbon black
- 3 mounting options
 - Wire suspension
 - Hard ceiling
 - Drop ceiling





Cisco Room Vision PTZ



Enhanced camera tracking experience



Designed to power the best cinematic meetings



Simple to deploy, scale and manage



Cisco Room Vision PTZ



Enhanced camera tracking experience



Designed to power the best cinematic meetings

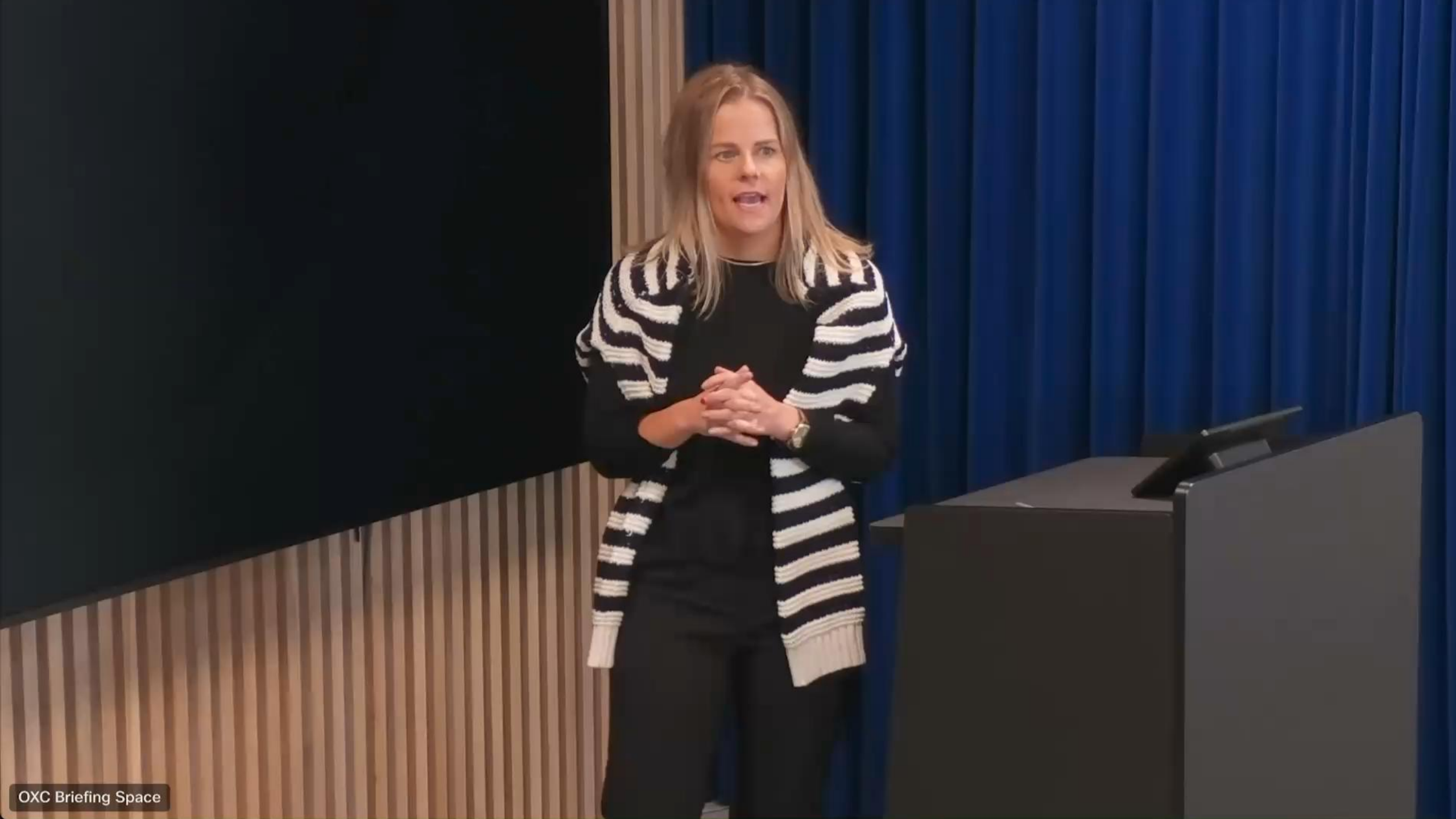


Simple to deploy, scale and manage



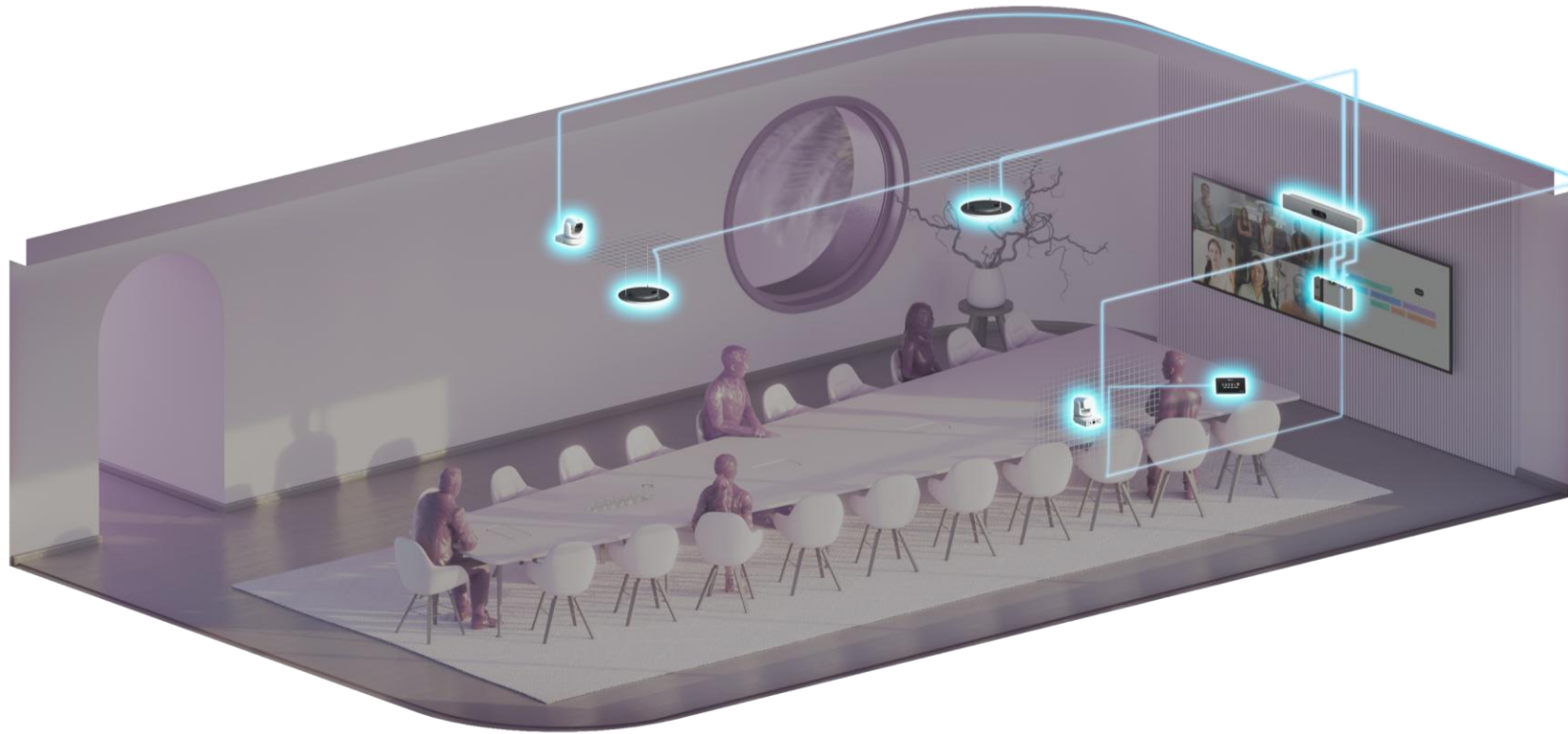
Drastically simplify AV installation and management with single-cable Ethernet connection for power, video, and camera control.





Everything over IP

Enhancing and Simplifying with AI Director and AVoIP



EYES

CAMERA

EARS

MICROPHONE

BRAIN

VIDEO
DEVICE

Everything works together

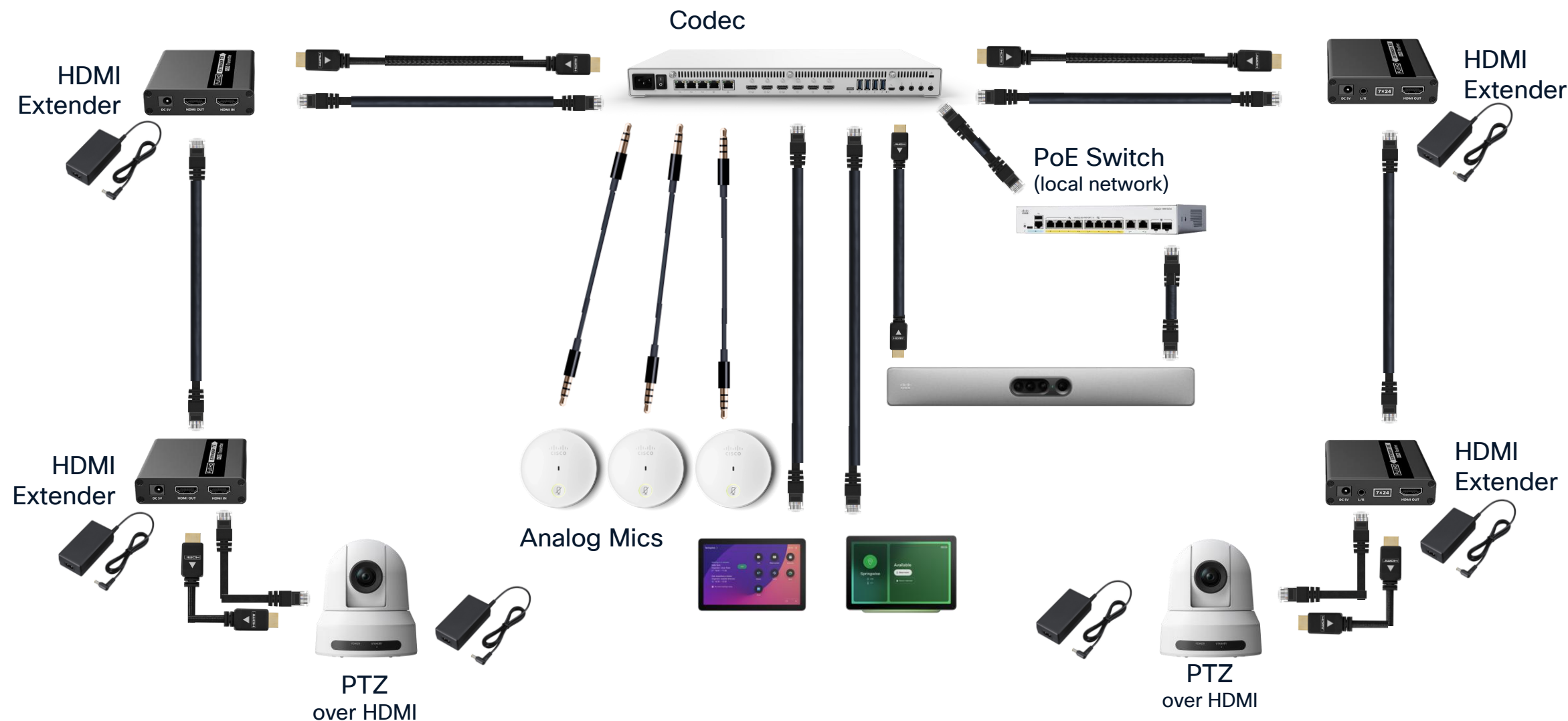
Room booking and
indoor navigation

AI-powered devices
with occupancy data

Room controls, wireless
sharing and environmental
sensors

Ethernet Switching

IP Simplification - Before



IP Simplification

C9200CX Series
PoE+ Switch



Corporate
Network

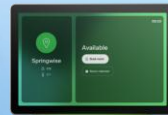
Codec EQ



Room Vision PTZ
Video over IP



Cisco IP Mics
Audio over IP



Room Navigator
Control & Booking over IP



Quad Camera
Control over IP

Past Recommendation

C1200-8FP-2G-OPT



Red – Private
accessories

POE+ ports with a total
maximum budget of 120W



Configuration of Cisco C1200 Switches for use with Cisco Video Collaboration Devices

June 2025

15544.01

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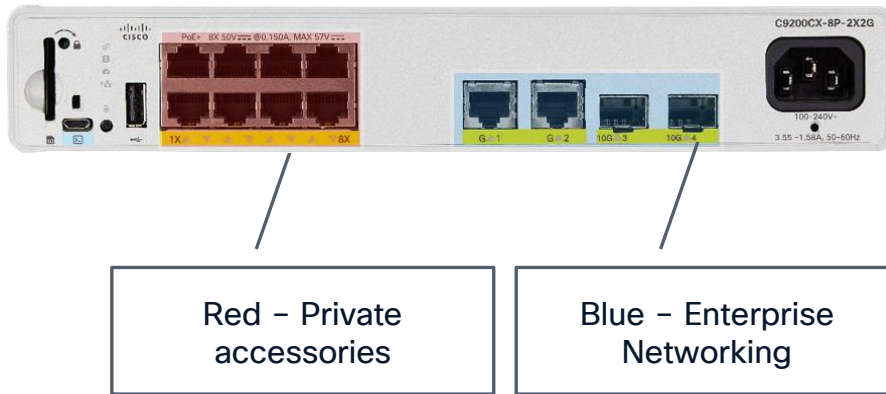


Cisco Confidential

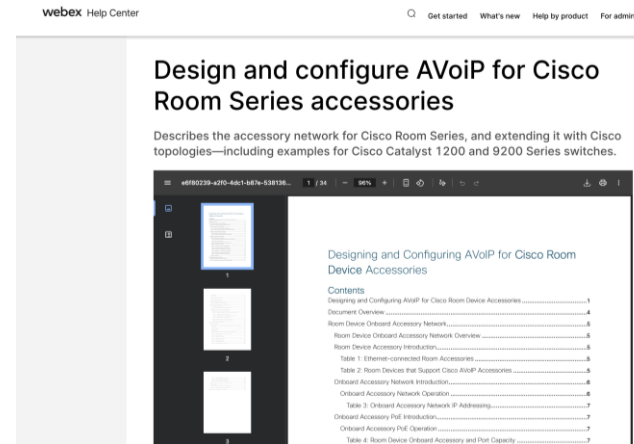
- More ports
- More PoE+ power
- Easy to order
- Serial managed
- Manual setup

New Recommendation

C9200CX-8PT-2G
C9200CX-12P-2G
C9200CX-8UXG-2X



POE+ ports with a total maximum budget of 240W



- More ports, 10/5/2.5 Gbe
- HVDC options
- More PoE+ power
- Manageable
- Fanless
- REST API flexibility

Isolated to Managed Switches

Port expansion methods

Link Local Network Expansion

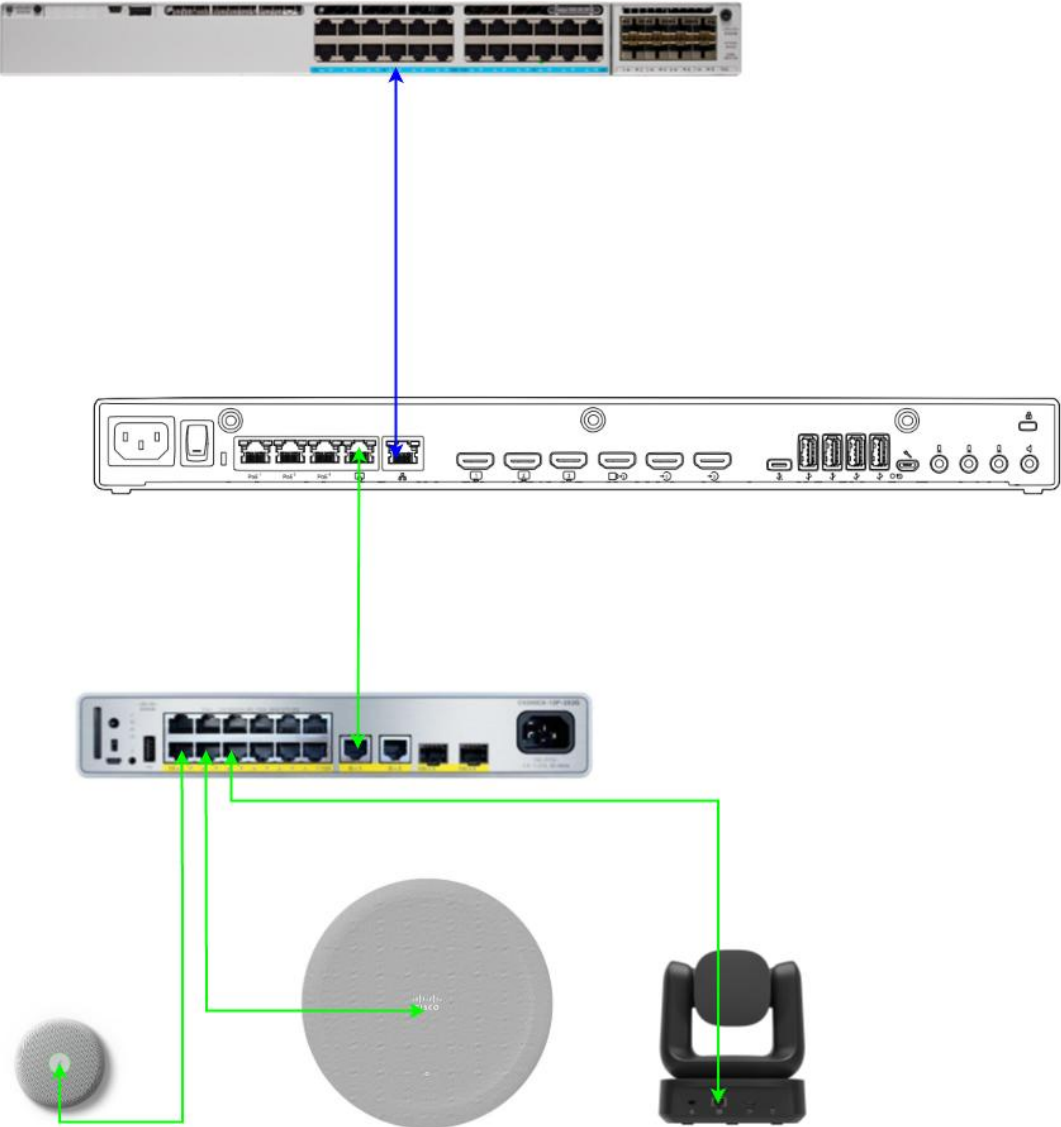
Fast, simple expansion of more ports. For when you are out of switchports or power requirements exceed the capabilities of the codec. Zero configuration needed with out the box Cisco Catalyst switches.

Remote Managed Deployment

The network team wants to help you with your goals, or they want you to fall in-line with their standards. Usually involves management of network switches and patching.

Network Topologies

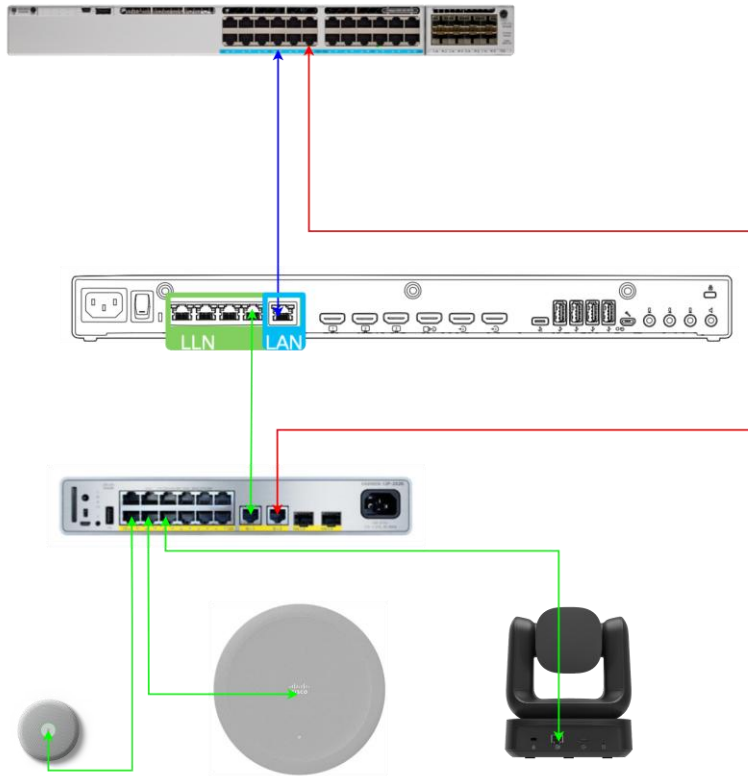
LLN Expansion switch Topology



Managed Deployment Topologies

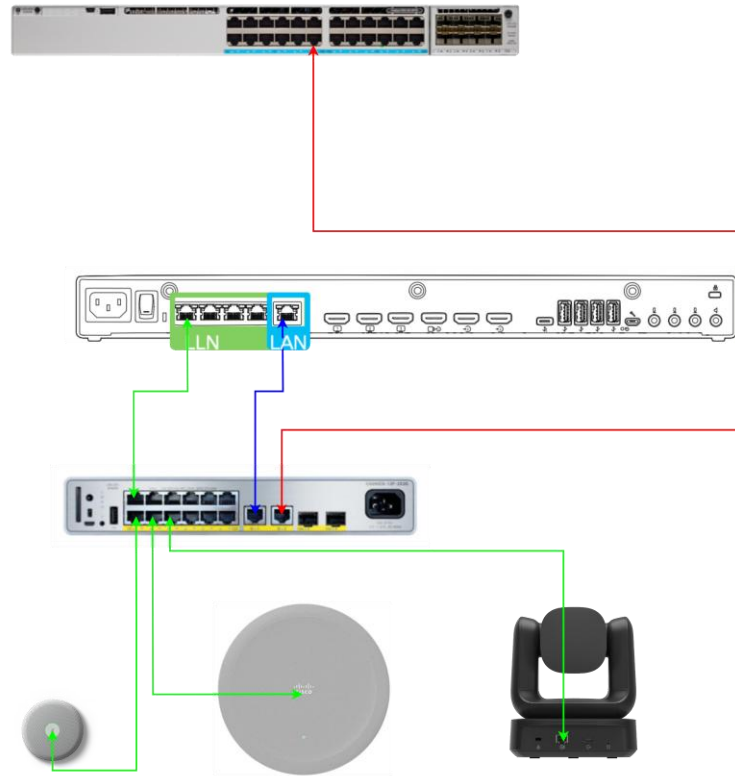
Convenient Switch

Under the table
Inside credenza



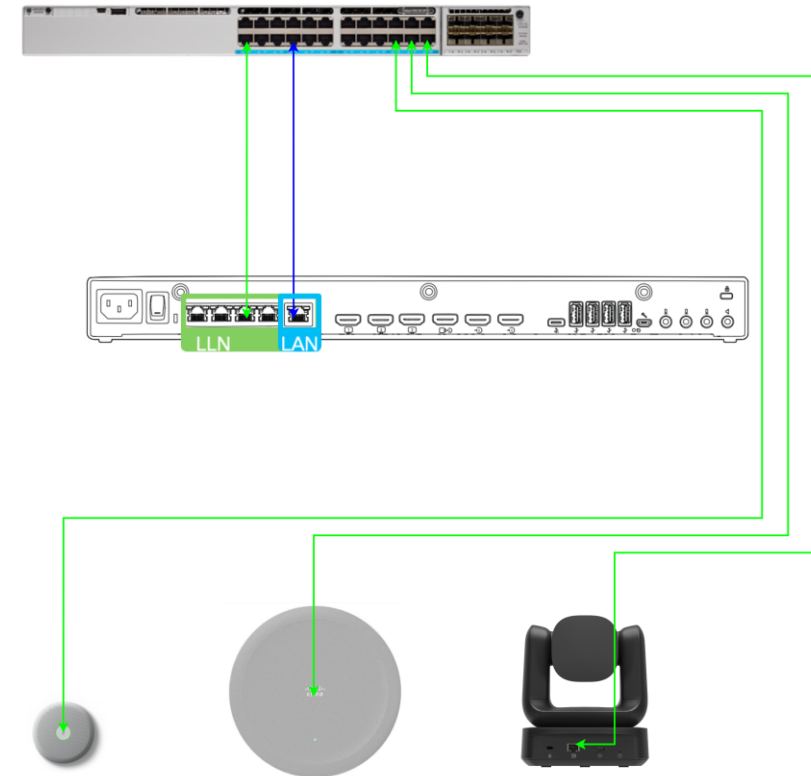
One Network Drop Switch

Behind the main display
In room AV rack



Home Run Switch

New build
Easy retrofit



Considerations for switch deployment



Physical Cable Plant

Co-located codec and switch (yes or no)

Room-centric cabling

Overhead cable tray in ceiling

Underfoot raised floor grid

Accessory locations



Management Needs

Network team standard alignment

802.1x requirements

Switch footprint

Physical access to ports

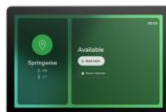
PoE and IP Addressing Considerations

Calculate the PoE Budget

Accessory	PoE Budget
Navigator (Table and Wall)	Class 0 (15.4w)
Table Microphone Pro	Class 2 (7 W)
Ceiling Microphone Pro	Class 3 (15.4 W)
Room Vision PTZ	Class 4 (30 W)



+15.4w



+15.4w



+7w



+7w



+15.4w



+30w



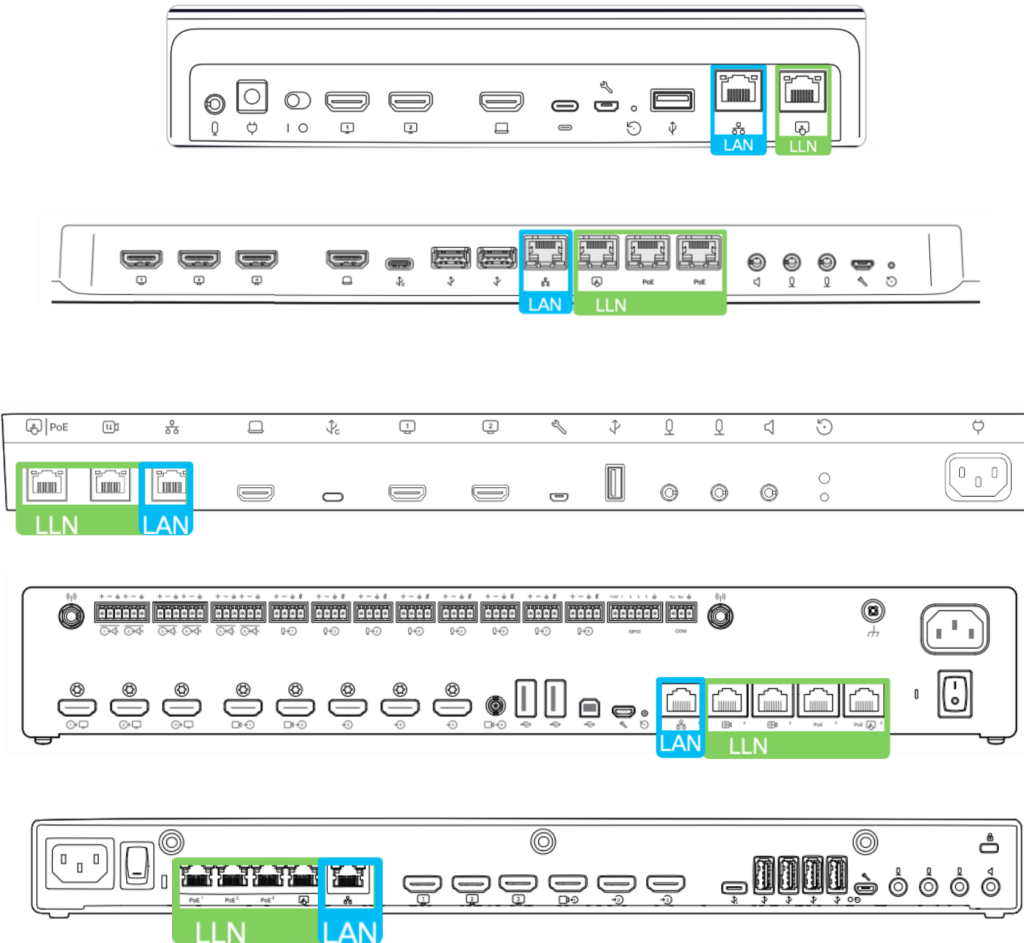
+30w



+0w

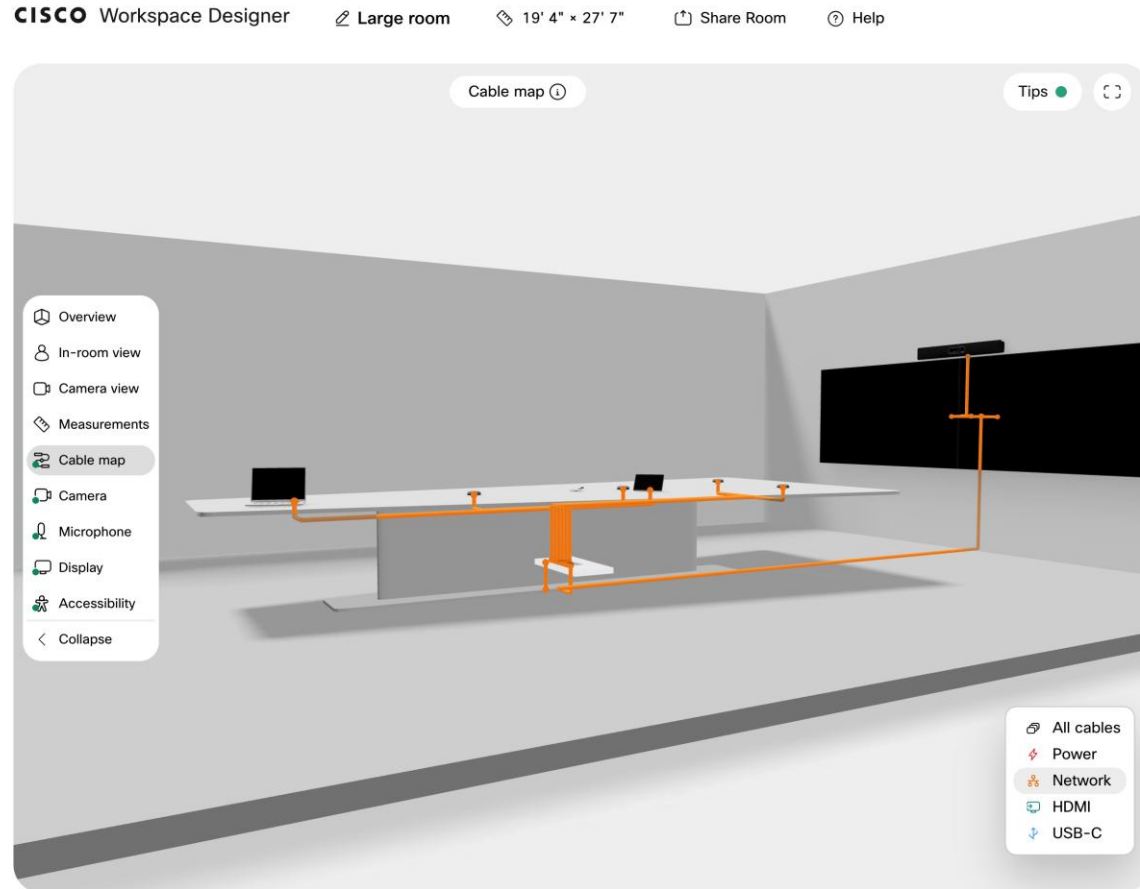
PoE Budget = 120.2w

Understanding the Accessory Network



Video Device	Total Acc. Ports	PoE Capable Acc. Ports	Per Port Budget	Total Budget
Room Bar	1	1	15.4 W	15.4 W
Room Bar Pro	3	3	15.4 W	60 W
Board Pro G2	2	1	15.4 W	15.4 W
Codec Pro	4	2	15.4 W	35 W
Codec EQ	4	4	90 W	90 W

Workspace Designer Example PoE



Workspace Designer Example PoE

Type	From	To	Distances	PoE
 Network	Codec	Quad Camera	3'	-
	Codec	Switch (table)	21'	-
	Internet	Codec	-	-
	Internet	Booking panel	-	1 × 15W
	Internet	Switch (table)	-	-
	Switch (table)	Table Mic Pro	10', 9', 5', 5', 9'	5 × 7W
	Switch (table)	Navigator	5'	1 × 15W

IPv4 Address Space

RFC 1918 Space

10.0.0.0/8

Used often in large corporate networks. Easily partitioned for each site and summarized at the second octet boundary.

172.16.0.0/12

Similar in concept to the 10.0.0.0 address space but significantly smaller usable address space.

192.168.0.0/16

Used for smaller network segments. Every router you have likely owned at home makes use of this range.

IPv4 Link-Local Address Space

RFC 3927

Purpose

Gives you an address in the event of IPv4 DHCP failures to enable 0 hop communications.

Non-routable, non-unique addressing within the **169.254.0.0/16** range

Advantages and LLN

Naturally will not bleed into routable, client networks.

Keeps the **media local** by protocol design. Used for Cisco accessories on video devices.

RoomOS Link Local Addressing

Device	IP Address Range	Method
Room Device	169.254.1.1	Static and unconfigured
First 3rd Party Device	169.254.1.30	DHCP
Cisco Accessories	169.254.1.41 – 169.254.1.200	DHCP
Second and Subsequent 3rd Party Devices	169.254.1.225 – 169.254.1.254	Static

Relevant Ethernet Configurations

Important Layer 2 Concepts

VLANs

Virtual LANs, separation of groups of network ports that create virtual switches within a single physical switch.

Spanning Tree

Protocol used to maintain a stable layer 2 topology and elimination of loops in Ethernet networks.

Portfast

Used to rapidly transition a port through normal spanning tree states and quickly get to the point of forwarding.

Root Bridge

The root bridge is the most important bridge in a layer 2 network. All bridges find the root and forward traffic toward this device naturally.

Relevant Ethernet Configurations

Important Layer 2 Concepts

VLANs

Virtual LANs, separation of groups of network ports that create virtual switches within a single physical switch.

Vlans are optional in some setups and required in others. In simple, accessory switch deployments it is optional.

Easily configured

```
Switch# configure terminal
Switch(config)#vlan 10
Switch(config)#exit
Switch# copy run start
```

Relevant Ethernet Configurations

Important Layer 2 Concepts

Spanning Tree

Protocol used to maintain a stable layer 2 topology and elimination of loops in Ethernet networks.

Spanning Tree in simple configs is easy, in networks that touch the corporate network they must be coordinated.

Easily configured:

```
Switch# configure terminal
```

```
Switch(config)#spanning-tree mode rapid-pvst
```

```
Switch(config)#exit
```

```
Switch# copy run start
```

Relevant Ethernet Configurations

Important Layer 2 Concepts

Portfast

Used to rapidly transition a port through normal spanning tree states and quickly get to the point of forwarding.

On all ports that are connecting to Cisco or 3rd party accessories you want to set them to portfast.

Easily configured:

```
Switch# configure terminal
Switch(config)#interface gig0/1
Switch(config)#spanning-tree portfast
Switch(config)#exit
Switch# copy run start
```

Relevant Ethernet Configurations

Important Layer 2 Concepts

Root Bridge

The root bridge is the most important bridge in a layer 2 network. All bridges find the root and forward traffic toward this device naturally.

The root bridge should be configured with **extreme care** and coordinated with the network team.

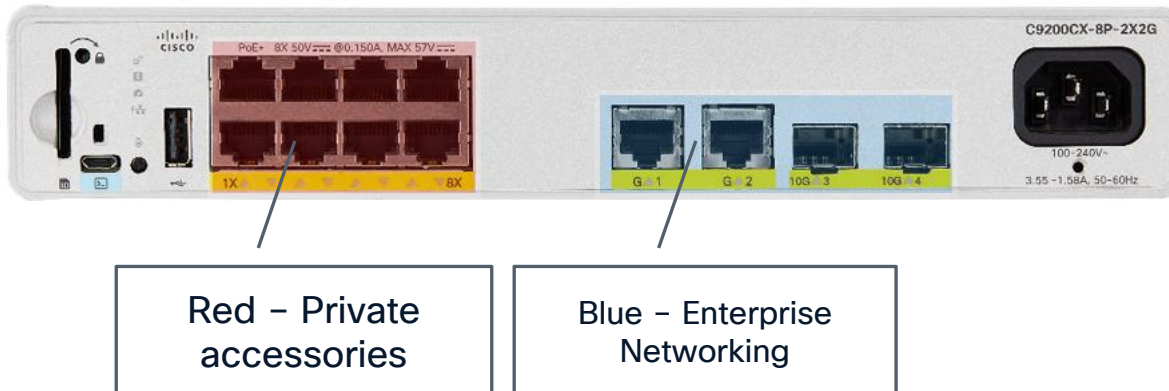
Easily configured:

```
Switch# configure terminal
Switch(config)#spanning-tree vlan 10 priority 4096
Switch(config)#exit
Switch# copy run start
```

This configuration presumes you want this to be the second most important switch in vlan10. Vlan priority is configured starting at 0 in increments of 4096

Which configs go where?

C9200CX-8P-2X2G
C9200CX-12P-2X2G
C9200CX-8UXG-2X



- Red Ports
 - Portfast
 - Vlan for accessories
- Blue Ports (different options)
 - Vlan for management
 - Vlan for codec
 - Trunk for everything

Divisible Rooms

What is a “Divisible Workspace”?

- Commonly referred to as:
 - Training Rooms
 - Flex Spaces
 - Split / Combine Spaces
 - Briefing Rooms
- Usually two, three, or four identical spaces located beside each other with **removable** or **collapsible** walls
- Common for divisible rooms to also be used as Executive / Board spaces and for Town Halls



Current Solutions



Product Solutions Resources Open Source Enterprise Pricing

[gve-sw / gve_devnet_divisible_conference_rooms_webex_devices_macros](#) Public

<> Code

Issues

Pull requests

Actions

Security

Insights

master

1 Branch

1 Tags

- “Simplified” 1+1 Macro

Product Solutions Resources Open Source Enterprise Pricing

[gve-sw / gve_devnet_n_way_divisible_conference_rooms_webex_devices_macros](#) Public

<> Code

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1 Branch

1 Tags

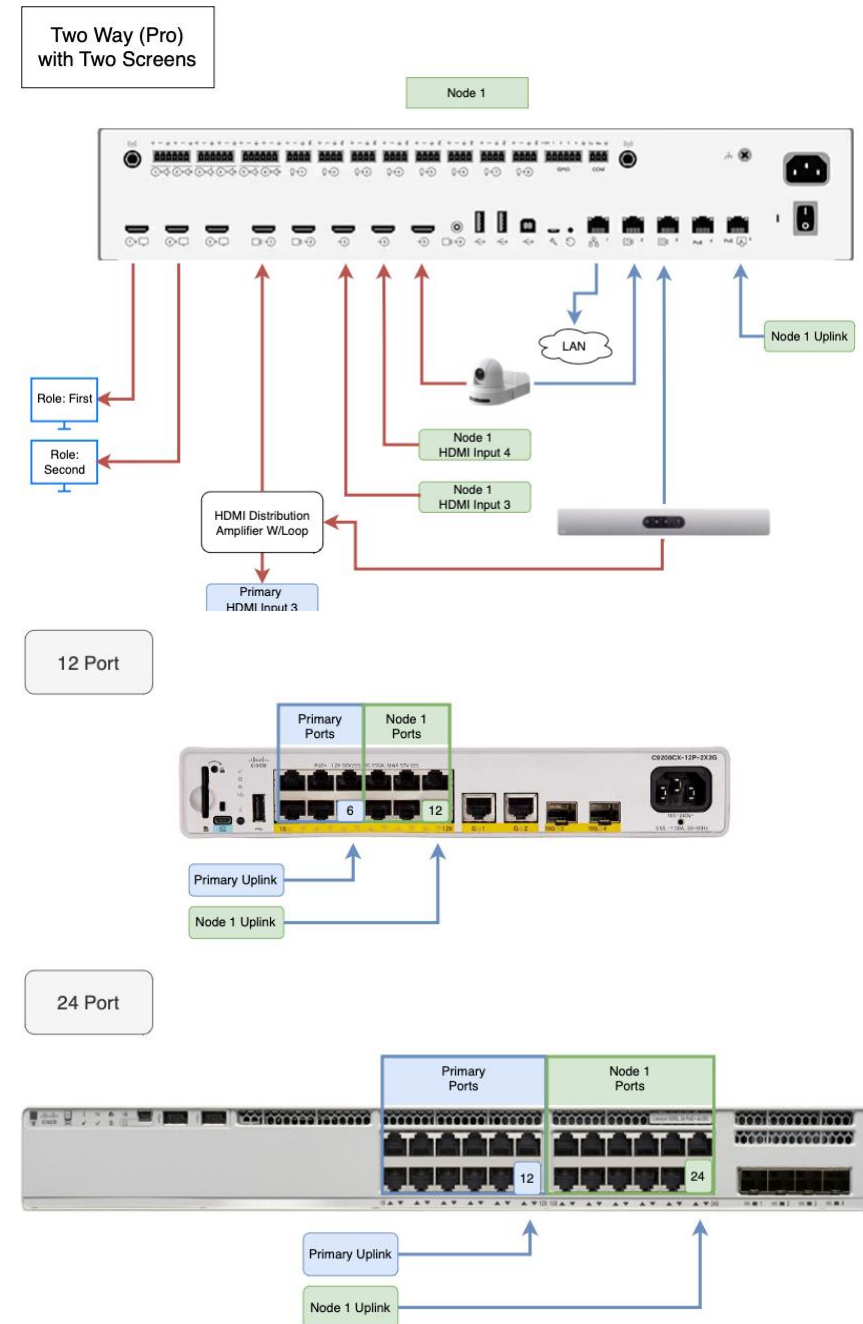


Divisible Workspace Blueprint

- Leverages Cisco Pro Series Microphones, Catalyst Switches and Cisco Video Devices to provide a simplified, easy to deploy, scalable blueprint for Divisible Workspaces.
- We support Two-Way and Three-Way designs!
- All the documentation available on GitHub:
<http://cs.co/dwsblueprint>

Join the “Community” Space:

https://eurl.io/#nakTe_Vn3



What's Different?

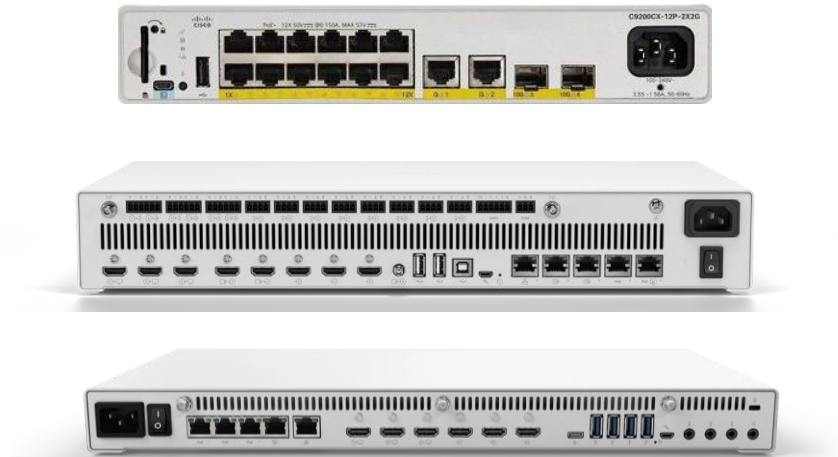
- **No Macro Interaction / Knowledge Required**

- The blueprint provides a simplified deployment where the administrator does **not** need to configure Macros at all!



- **Versatile Deployments**

- Repeatable, scalable offerings with tested reference designs based on select switch and codec



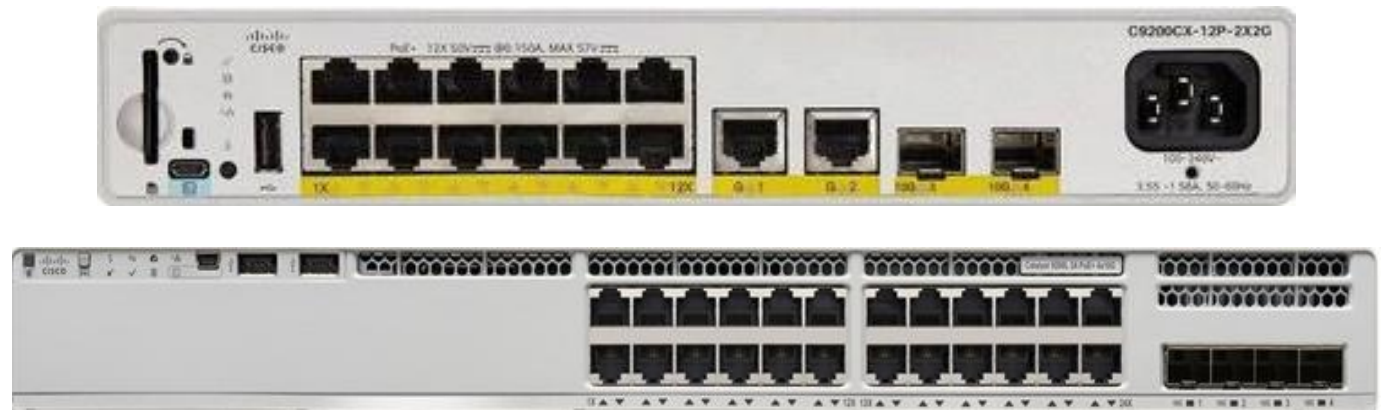
- **Built for Cisco IP Peripherals**

- Supports Table Microphone Pro **and** Ceiling Microphone Pro



Supported Switches

- The following switch models are supported:
 - C9200CX-8P-2X2G
 - C9200CX-12P-2X2G
 - Catalyst 9200 24 Port Models*
 - Catalyst 9300 24 Port Models*
-
- We are using RESTCONF APIs to make configuration changes to the switch.
 - C1K series do **not** have a REST API.



Control Hub Visibility

< Workspaces



DWS Primary

Meeting Room • Capacity: 24 people

Overview Scheduling Meetings

Devices

-  **Cisco Room Kit Pro**
● Issues • 
-  **C9200CX-12P-2X2G**
● Online
-  **Cisco Ceiling Microphone Pro**
● Online
-  **Cisco PTZ 4K**
● Online

< Devices



C9200CX-12P-2X2G

● Online • Control System • Device platform: 

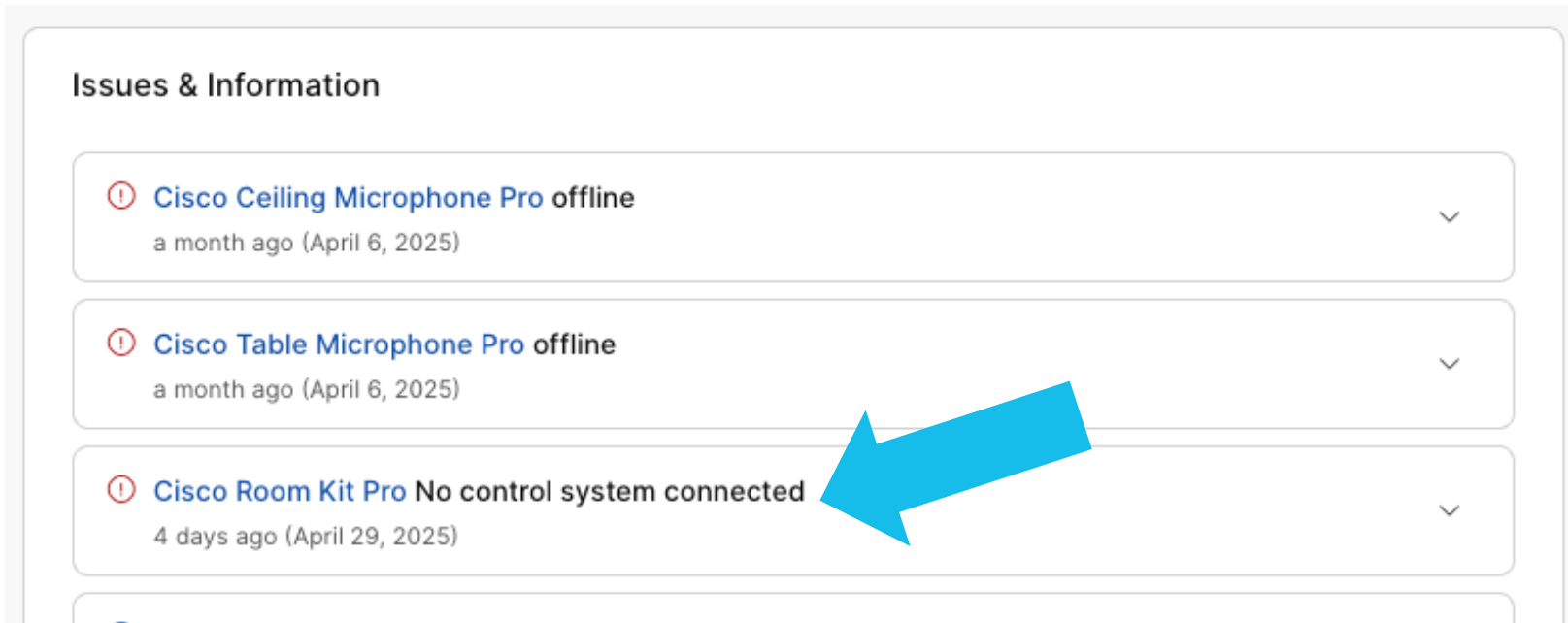
Overview History

Details

Control System Type	None Verification ⓘ
FJC272221JU Serial number	Unknown Connection Type

Control Hub Alerting

Shift image left.
Add image right of
alert center in
Control Hub



Quick FAQ

- **No TAC Support**

- A “tested” art of the possible design

- **Cisco Pro Microphones Only**

- Third party IP microphones not supported for Audience Mics

- **Voice Lift Support** Coming Soon!

- Provides automatic ceiling microphone ducking

- **Not MTR Compatible**

- Relies on xAPI Commands not available in MTR

- **No Cross View or Extended Reach**

- Only 1 Quad camera and 1 PTZ supported per room

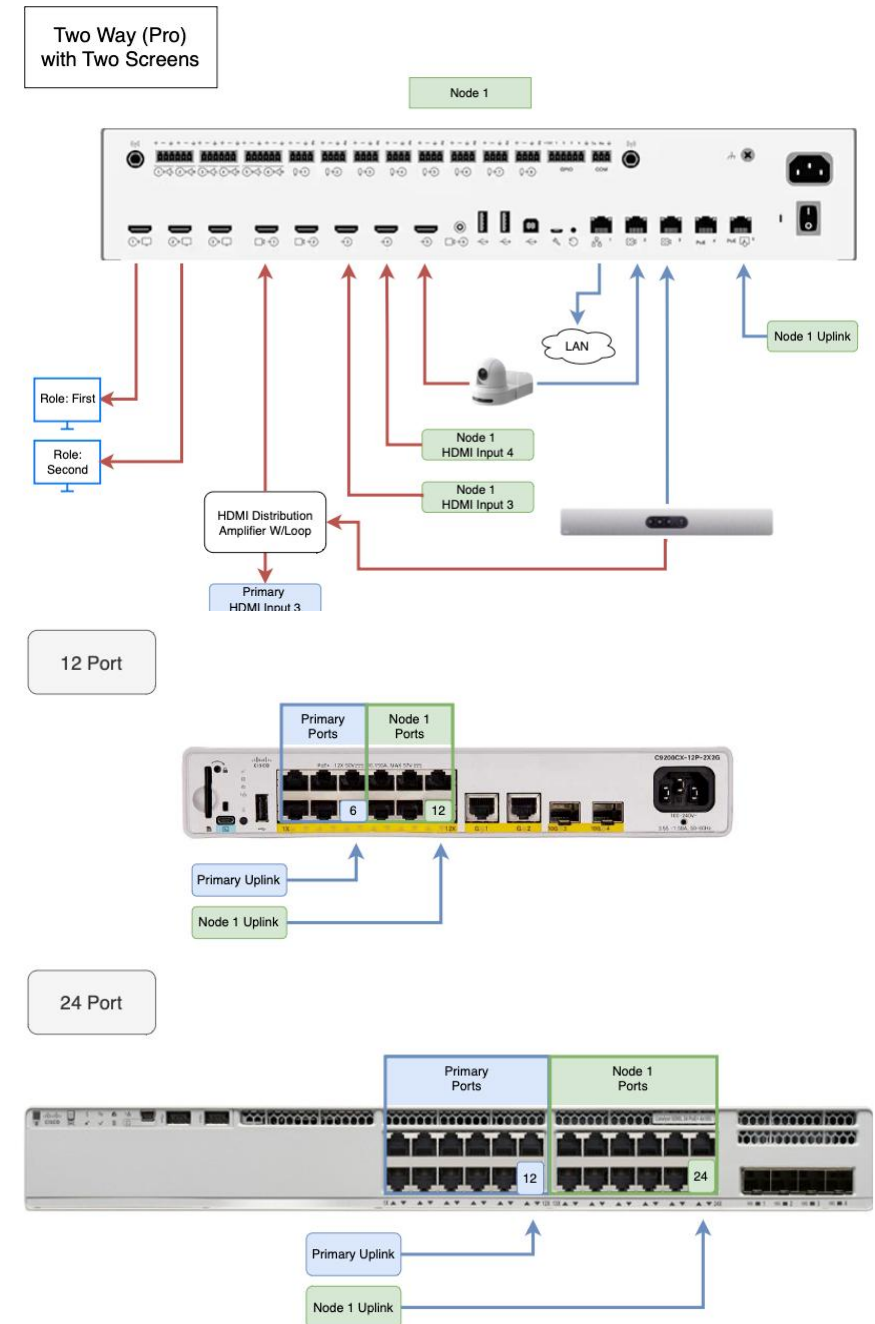
- **“Standard” Room Type Only**

- Cannot be mixed with Classroom, Briefing or Panda

- **Tested on Room OS 11.30+**

Setup: Physical Installation

- Installation guidance for cabling is provided in the Blueprint GitHub repository for Single Screen and Dual Screen Setups and variants based on the selected Codec models.
- The Macros will validate the proper installation of cabling, interfaces and the Switch before finalizing the configurations and initializing.
- Please ensure your connections match the diagrams!



Setup: Switch Configuration

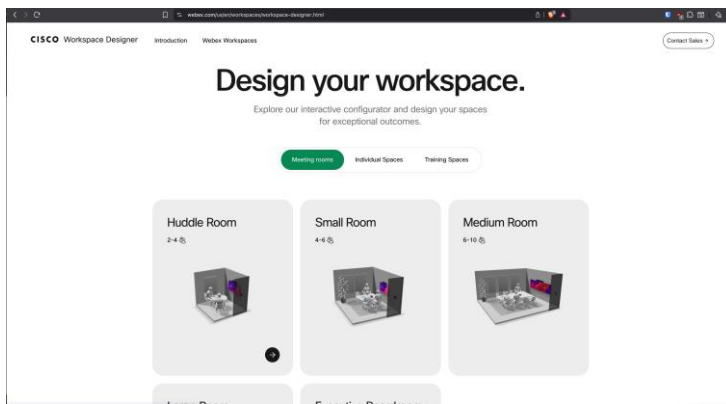
- We have leveraged the capabilities of the Catalyst 9K switches to boot from USB to load a standardized and predictable base line configuration.
- This configures the switch to have all ports configured as access ports in pre-defined VLANs, Portfast enabled, a static IP address (169.254.1.254) and RESTCONF API access enabled.
- Setup Steps:
 - Load the correct ciscortr.cfg onto USB Key
 - Wire all connections as instructed in the diagrams
 - Power up Switch
 - Switch will be fully configured in 6 minutes



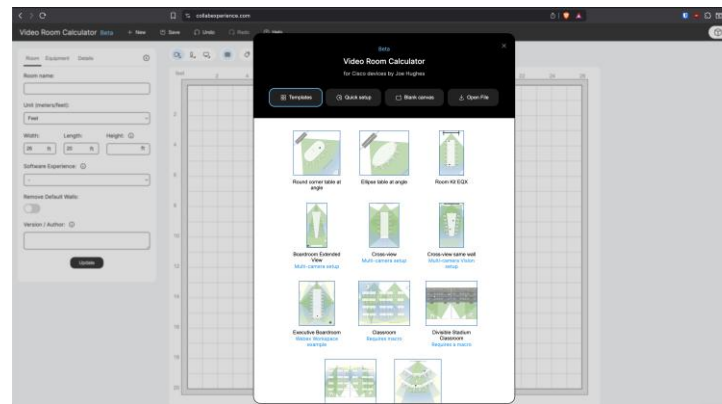
Tools and Resources

Use the tools to help refine and design

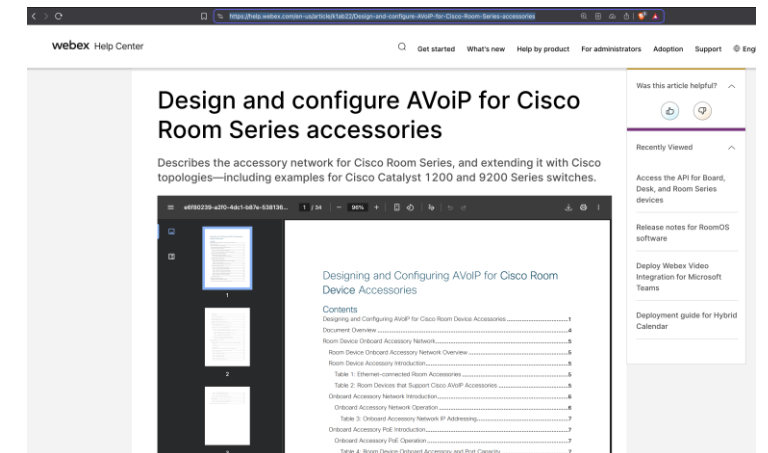
- Workspace Designer



- Video Room Calculator



- AVoIP switch config guide



Complete your session evaluations



Complete a minimum of 4 session surveys and the Overall Event Survey to claim a Cisco Live T-Shirt.



Earn up to 800 points by completing all surveys and climb the Cisco Live Challenge leaderboard.



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Attend the interactive education with Capture the Flag, and Walk-in Labs



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Thank you

CISCO Live !



Setup: Control Hub

- Create your Workspaces and Register the Devices

The screenshot displays the Cisco Webex Control Hub interface, specifically the 'Workspaces' section. The left sidebar contains navigation links for Overview, Alerts center, MONITORING (Analytics, Troubleshooting, Reports), MANAGEMENT (Users, Groups, Locations, Workspaces, Devices, Apps, Account, Organization settings), and SERVICES (Messaging, Meetings, Calling, Contact Center, Connected UC, UCM Cloud, Hybrid). The main content area is titled 'Workspaces' and includes tabs for Workspaces, Insights, Integrations, and Settings. A search bar and filters are present at the top of the workspace list. The list shows six workspaces with columns for Name, Location, Type, Capacity, Scheduling, Calling, and Actions. Each workspace entry includes a visual representation of the workspace layout with icons for devices like displays, cameras, and microphones.

Name	Location	Type	Capacity	Scheduling	Calling	Actions
A workspace	Cisco Norway, Fl...	Desk	7	Calendar (Microsoft)	Call on Webex (1:1...	
ALT Sprint Space	Cisco Penn 1 Ne...	Meeting room	9	Calendar (Microsoft)	Call on Webex (1:1...	
SJC Auditorium	Cisco Building 1...	Auditorium	64	Calendar (Microsoft)	Call on Webex (1:1...	
NYC Cloud team corner	Cisco Penn 1 Ne...	Meeting room	9	Calendar (Microsoft)	Call on Webex (1:1...	
OSL Quiet Space Booth	Not set	Not set	Not set	None	None...	
NYC Cloud team corner	Cisco Penn 1 Ne...	Meeting room	9	Calendar (Microsoft)	Call on Webex (1:1...	

Setup: Device Configuration Templates

< Templates



Divisible Workspaces

Actions ▾

General

Sets the required configuration settings for Divisible Workspaces.
Description

5
Configurations

Details

03/27/2025
Last edited
Mark Lula
Last edited by

02/28/2025
Date created
Mark Lula
Created by

Configuration	Value
HttpClient > AllowInsecureHTTPS	(Default) → True
HttpClient > Mode	(Default) → On
Macros > Mode	(Default) → On
Video > Input > CameraConfigMode	(Default) → Auto
Macros > EvaluateTranspiled	(Default) → False

Setup: Add a Local User to Secondary Codec

The image shows a two-step process for adding a local user to a secondary codec. The first step is in the main RoomOS interface, where the 'Actions' menu for the 'DWS Secondary' device is open, and 'Run xCommand' is selected. The second step is the 'Run xCommands' interface, where 'UserManagement' is selected from the command list, and the 'Add' option is chosen under the 'UserManagement > User' category. Blue arrows indicate the flow from the 'Run xCommand' option in the first screenshot to the 'Run xCommands' interface, and then from 'UserManagement' to the 'Add' option.

Actions ^

- Reboot
- Run xCommand
- Report Problem
- Delete

DWS Secondary >
Occupied: Yes • Occupants: 0

Run xCommands

This interface lets you run xCommands on the selected device. To learn more about xCommands, visit the [RoomOS C](#)

Search for a command name

- Time
- UserInterface
- UserManagement** 12
- UserPresence 3

UserManagement > User

- Add
- Delete
- Get

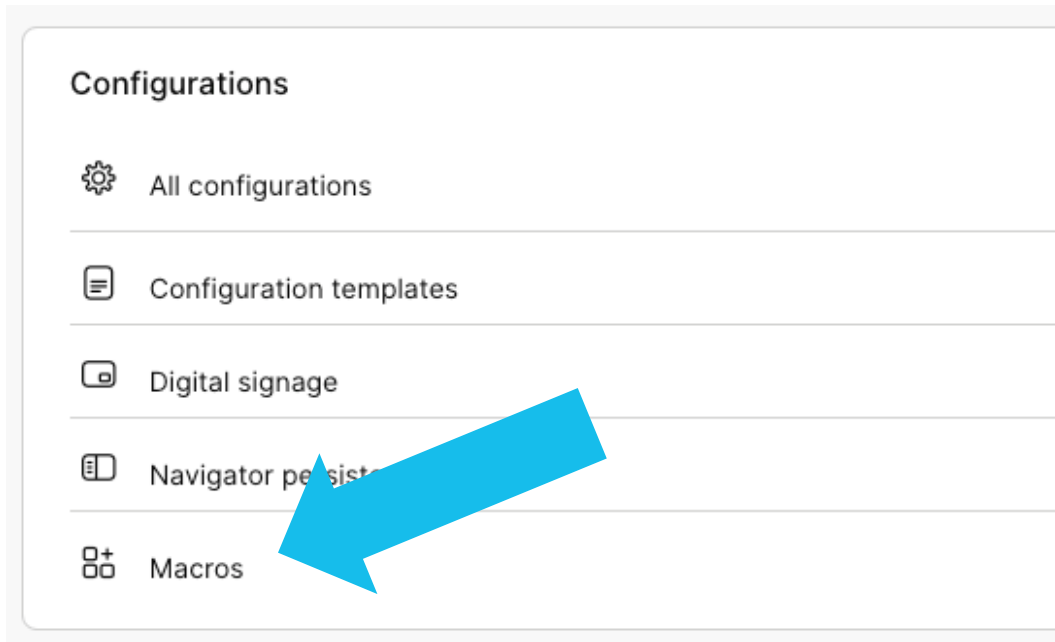
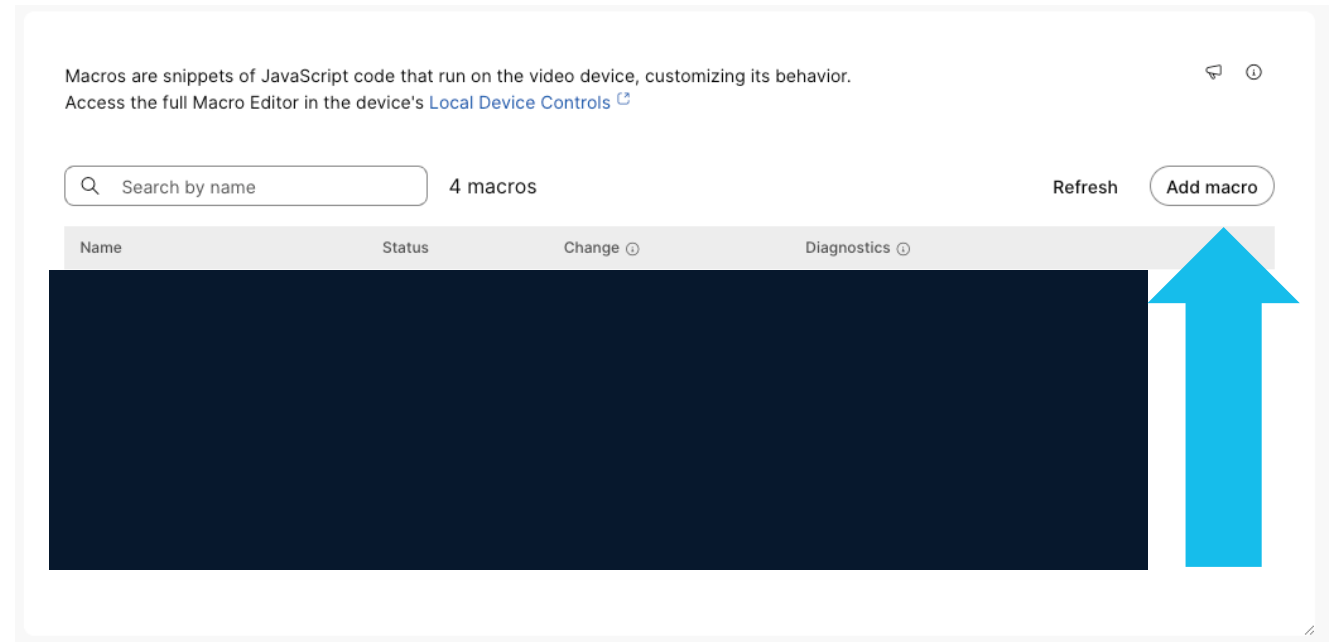
Setup: Add a Local User to Secondary Codec

Arguments

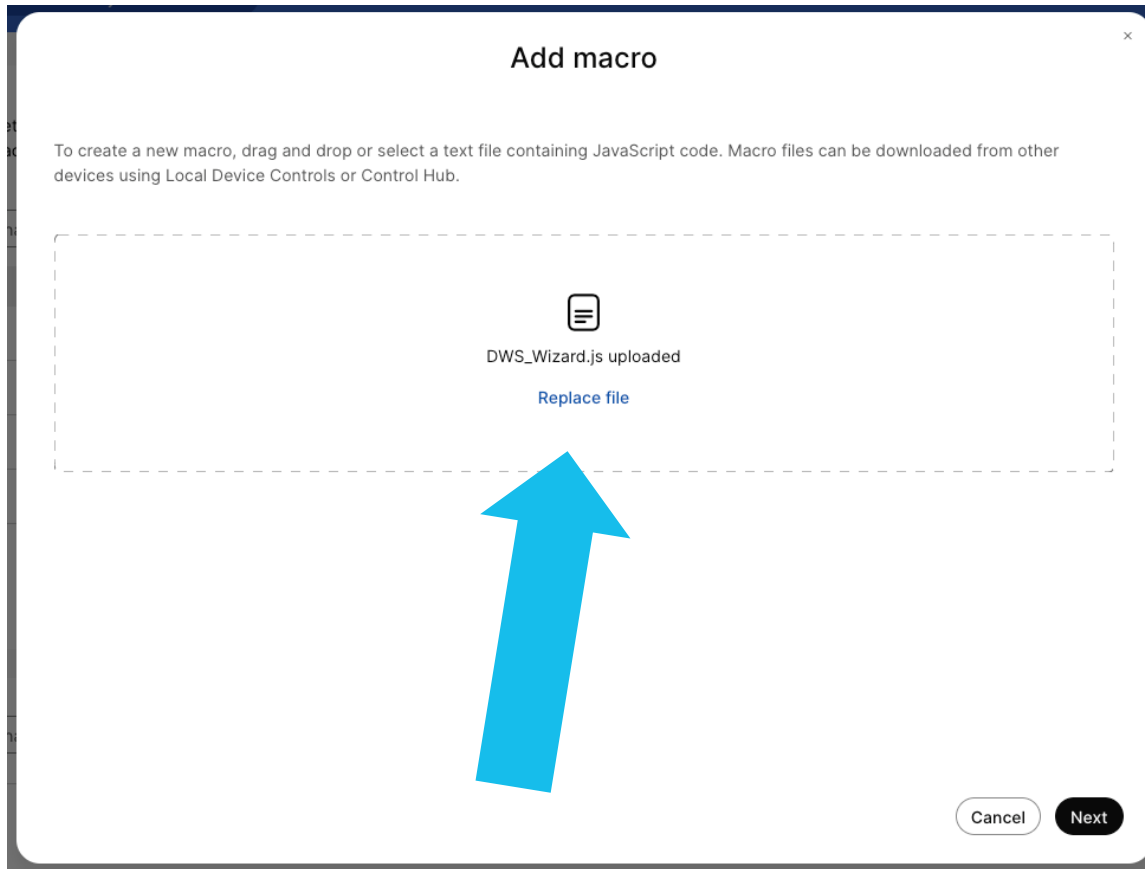
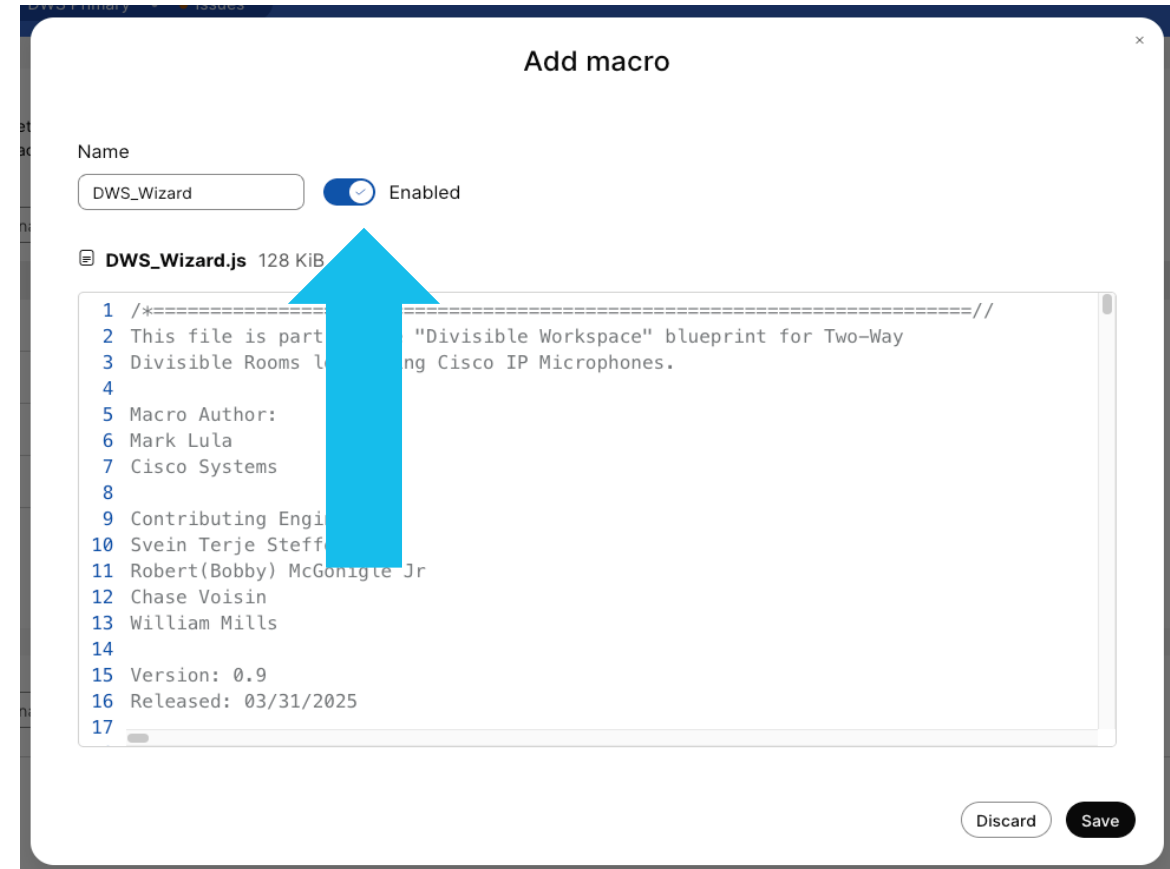
* indicates a required field

Role *		☒ Admin ☐ Audit ☐ User ☐ Integrator ☐ RoomControl
ClientCertificateDN		<input type="text" value="string"/>
Active		<input type="text" value="True"/>
Username *		<input type="text" value="YOUR USERNAME"/>
Passphrase *		<input type="text" value="YOUR PASSWORD"/>
YourPassphrase		<input type="text" value="string"/>
ShellLogin		<input type="text" value="Select an option"/>
PassphraseChangeRequired		<input type="text" value="False"/>

Setup: Load Wizard Macro 1/2

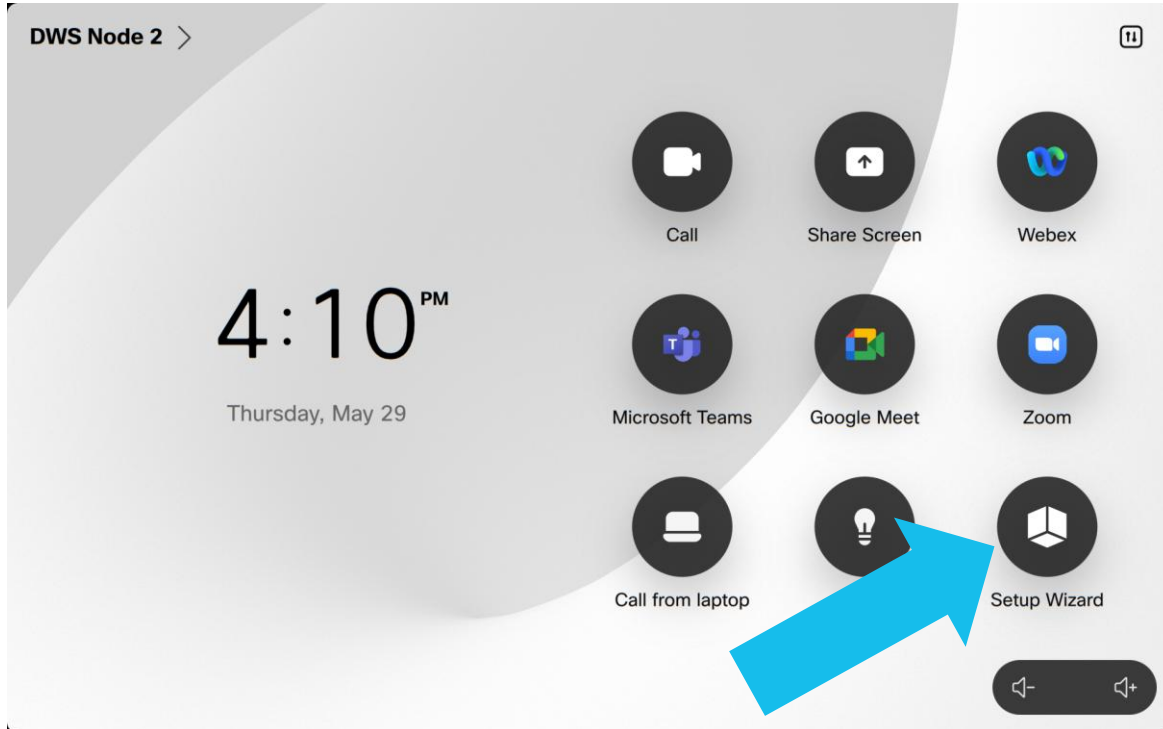
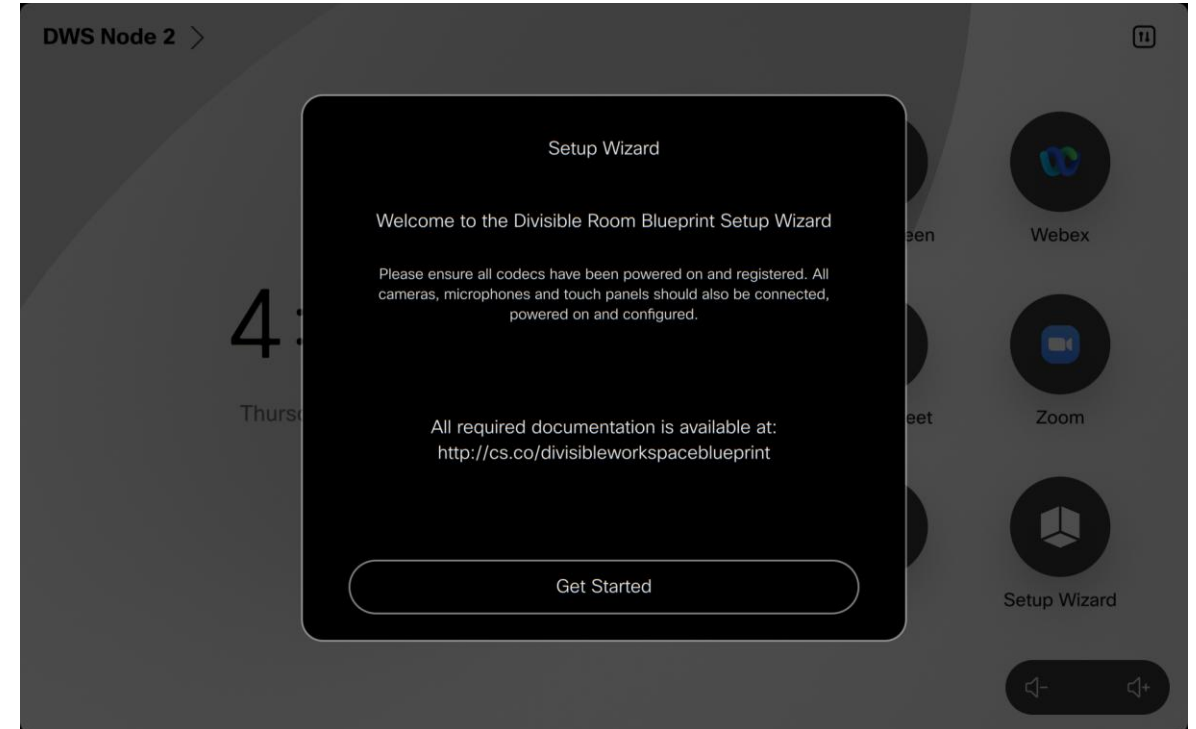


Setup: Load Wizard Macro 2/2



No Macro Configuration Required!

Setup: Setup Wizard



Setup: Auto Detect Peripherals

DWS Node 2 >

Node 1 Settings

Enter the details for Node 1. The Node Alias will be used on the room control panel to provide a user friendly way to ensure the correct rooms are selected.

Node 1 IP or FQDN Edit

Node 1 Alias Edit

Number of Displays Edit

Back Connect



DWS Node 2 >

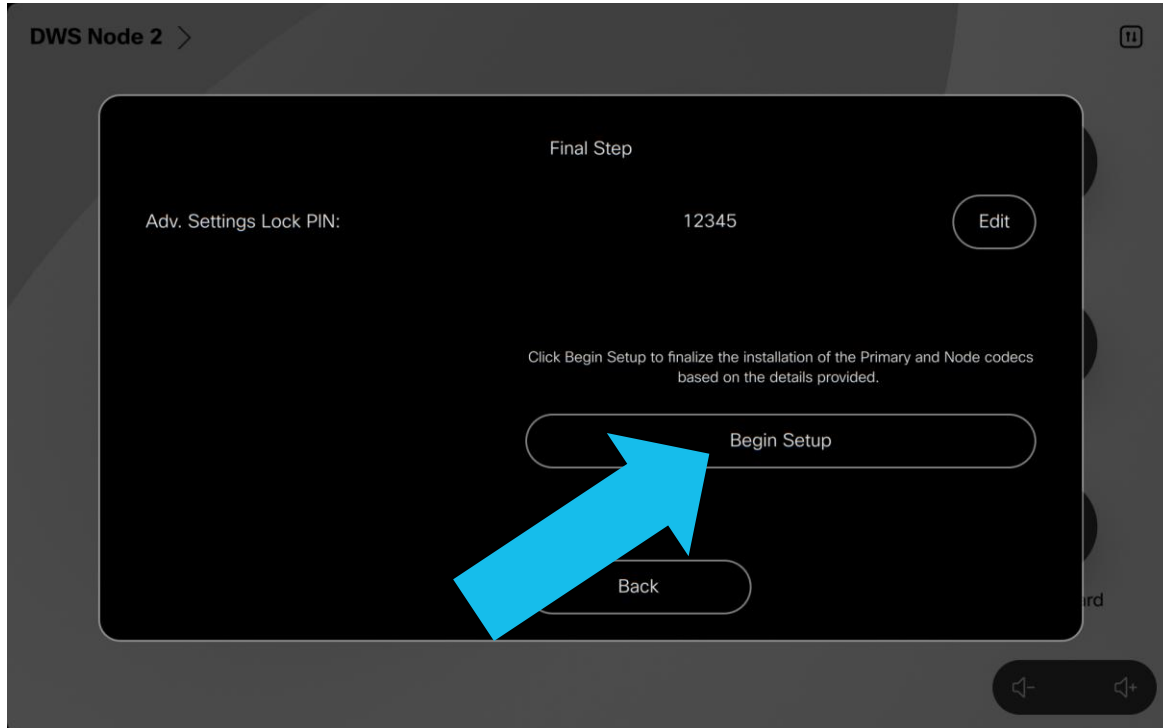
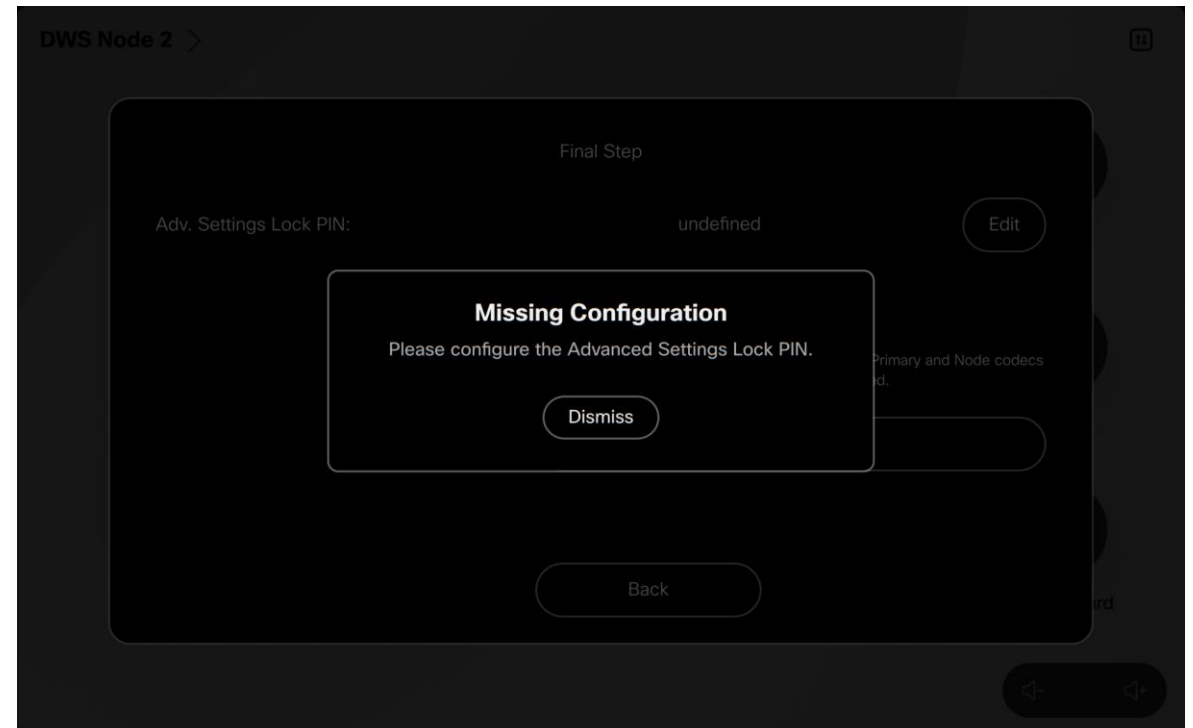
Node 1 Details

Node 1 Codec Details	192.168.70.5
Node 1 Microphones	FOC2833JEVZ
Control Navigator	58:56:9f:7c:1d:62
Scheduler Navigator	e8:0a:b9:e3:88:4c

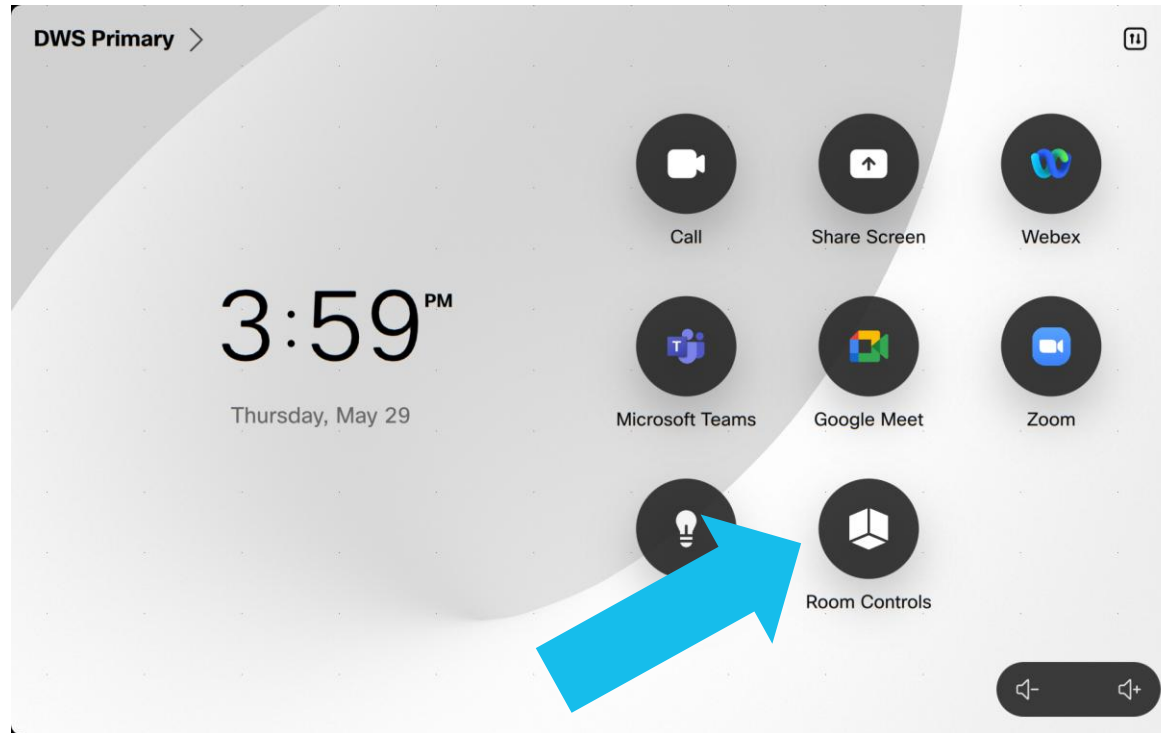
Please ensure all expected peripherals are detected before continuing.

Back Next

Setup: Setup Wizard



Operation: “Room Controls” Button



Operation: Change States

Room Controls

Current Room Status: Split

Combine Rooms



Confirm Combine Room Request

This process takes approximately 2 minutes to complete. Do you want to proceed?

Yes

No

DWS Primary >

Room Controls

Combined with: Node1

Split Rooms



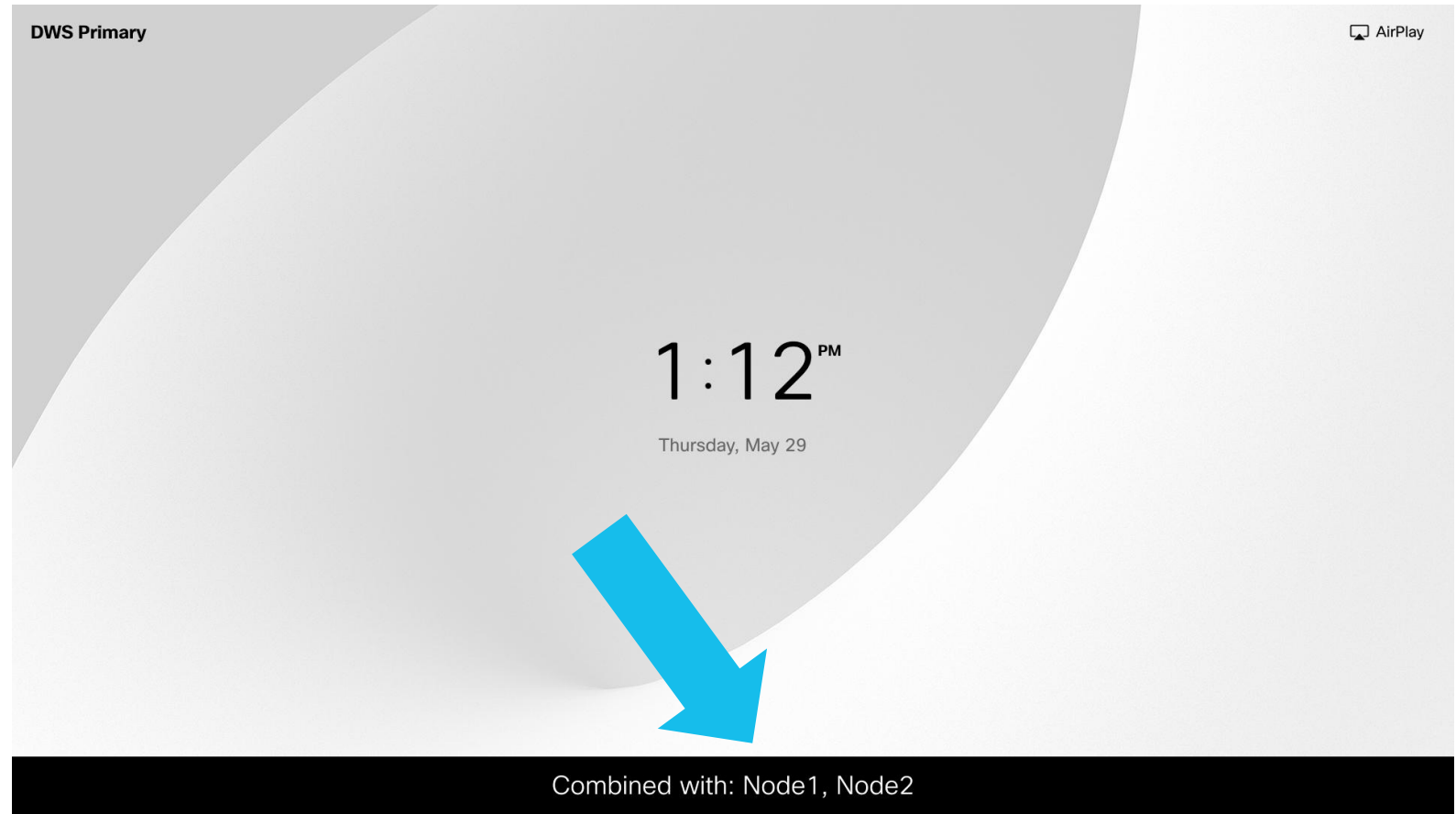
Call Share Screen Webex

Zoom

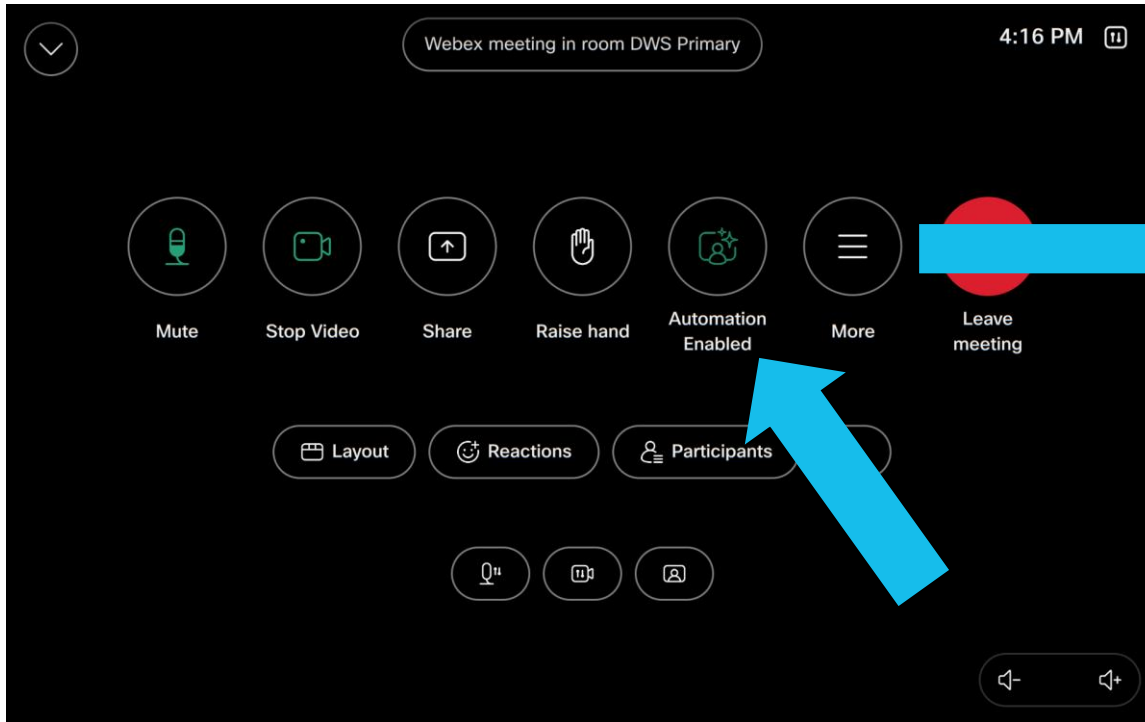
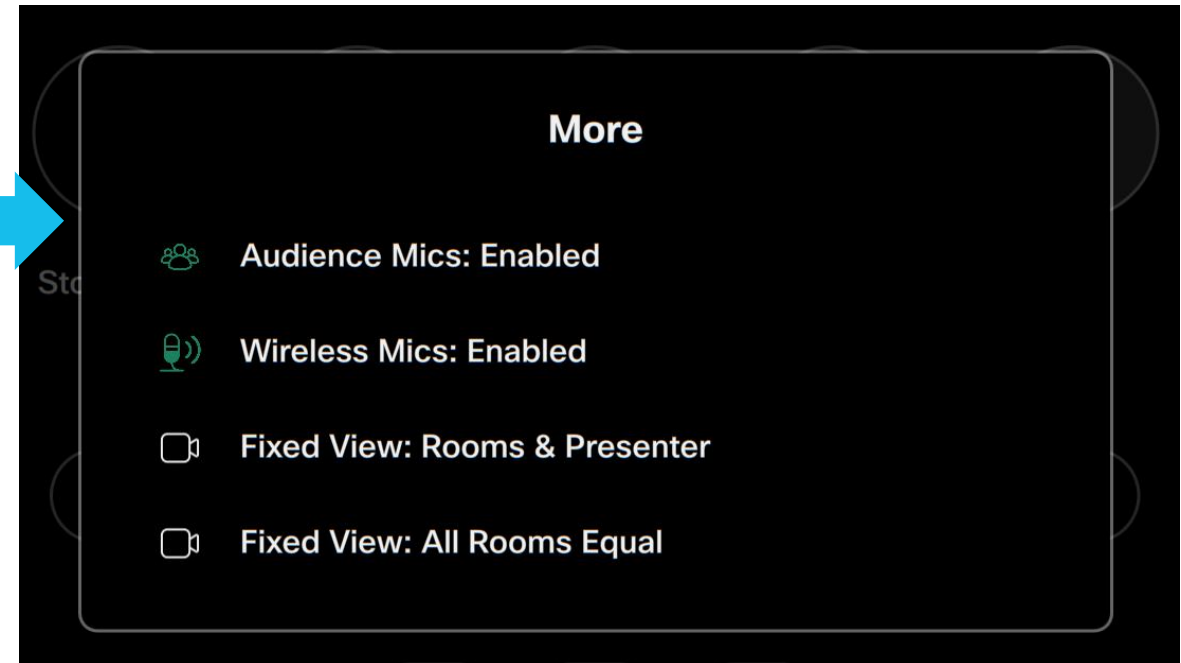
Tips Room Controls

11

Operation: Combined State



Operation: In Call Features



Operation: Advanced Settings

Control panel

Advanced Settings

Default Camera Automation Mode

On

Edit

Primary Audio Output Delay (ms)

Use this setting to sync the audio output of the primary codec with the node codecs.

—

0

+

Microphone "High" Thresholds

Primary Audience Mics

—

28

+

Node 1 Audience Mics

—

34

+

Node 2 Audience Mics

—

37

+

Apply Configuration

Device settings